INTRODUCTION

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FinTech and Islamic Finance-Challenges and Opportunities

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ABSTRACT

Fintech is the merger of two terms: finance and technology. Islamic finance provides financial services to the customers in accordance to the rules and regulations prescribed by Shariah. As Islamic finance is growing by leaps and bounds since the last two decades, and so is FinTech, in the last decade. The main objective of Islamic finance is to enhance the economic growth in the society with the use of Shariah compliant financial solutions. Likewise, FinTech provides cost effective solutions for the companies and especially startups that help in the reduction of their costs and improvement in business processes. Financial industry is a very elusive yet important sector in the society, and hence heavily regulated by the regulators. The introduction of FinTech in countries, especially developing countries like Pakistan can help to boost economic growth but this will increase the workload of regulators as they must ensure stability of the financial system and to protect it from frauds/crises. Hence, proper monitoring by the regulatory authorities is crucial to avoid cyber-attack, data leakages and data theft as it can lead to misuse of the information. For the good results of FinTech, not only the users but the regulators have to be aware with the structure and functioning of the system and the regulations should be in place proactively. This paper focuses on the three main aspects namely: explaining the FinTech, opportunities for Islamic financial institutions and the challenges/issues faced by the institutions in implementing FinTech solutions. The paper also provides the current status of FinTech application globally and the potential in it to serve the poorer segments of society. The review of literature approach is used for the paper.

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1. Introduction

Today Financial technology (FinTech) is introduced as a game changer. The idea of how FinTech is bridging the gap between finance and technology and bringing them much closer to each other such that they are the integral part of each other evokes a sense of change, with the uncharted and uncertain outlook and outcome (World Economic Forum, 2017) FinTech is devoted to companies or their representatives
that combine financial services with recent, advanced technologies (Navaretti, Calzolari, & Pozzolo, 2017)

FinTech is a term flipped in the recent past for technological innovation in financial services. Regulators are working towards developing a standardized definition of this broad term. Currently there is no globally recognized definition for the term “FinTech.” (Schueffel, 2016) However, according to the Financial Stability Board (FSB), of the BIS¹, “FinTech is technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services” (Reserve Bank of India, 2017)

The aim of this definition is to bring wide variety of innovations in financial services under one umbrella using technologies, regardless of their type, size and regulatory status. This breadth in definition is beneficial while forecasting and evaluating the developing financial industry with its challenges and opportunities. As per law, new entrants in the market offer Internet-based and application-oriented products. FinTech is also the second name for attracting customers with more user-friendly products and services which are more effective, efficient, translucent, and computerized than those presently exist (European Banking Federation, 2015) and (London Business School Review, 2015). According to PwC (PriceWaterhouse Coopers, 2017), more than 83% of financial intuitions are of the view that their business will have problems/risks due to the fintech startups. Hence, the companies need to invest in capacity building and projects related to fintech in order to stay in the market.

1.1 Current Status of FinTech
The financial service industry has gone through several stages of development from bookkeeping, to forming of central national banks and payment systems and later introduction of complex asset markets and other financial products (Arthur, 2017). Innovative payment systems like advanced wallets have been developed and the internet, retail and telecom industry have started offering financial services. With increasing digitalization, specialization and decentralization, the financial service industry has established more effective and improved methods of utilizing a wide variety of information (Cuesta, Ruesta, Tuesta, & Urbiola, 2015). In the past decade many technological developments have taken place which are being applied innovatively in all functions of finance from payments to savings, borrowing, risk management and financial advisory (Forbes, 2018). “FlexGen advisor”

The Fintech ecosystem includes, fintech startups, technology developers, governments, financial customers, traditional financial institutions, regulators, and in the case of Islamic Fintech role of shariah board/shariah scholars is also very important. The role of business partners with the fintech ecosystem is another important segment (Lee & Shin, 2018)

¹ Report of working group on FinTech and digital banking by Reserve Bank of India.
The technological advancements like artificial intelligence (AI), Big Data, Distributed computing, cryptography and internet or mobile based products lead to predictive analytics, machine learning, smart contracts, digital wallets, etc (Lochy, 2019). Financial industry can make payments, borrow, invest and manage their risk by using innovative technology. With the prevalent growth of FinTech there is need for the change in the regulations (Bofondi & Gobbi, 2017) hence, the concept of RegTech is picking up too (Arner, Barberis, & Buckley, 2016). Similarly, the role of InsurTech is also rising (Mc Kinsey and Co, 2017).

Following the insight-based business model, most firms have remained small but investments in them have increased. According to the IMF report, global investment in FinTech rose from USD 9bn in 2010 to USD 25bn in 2016. Venture capital investments have also expanded from USD 0.8bn in 2010 to USD 13.6bn in 2016. Value of public FinTech firms have quadrupled since the global financial crises, out passing other sectors. Public sector for the segment appears to have developed exponentially in the meantime (International Monetary Fund, 2016)

According to PWC report of 2016 (PwC, Global FinTech Report 2016, 2016), 59% of the financial institutions are currently dealing with FinTech. Globally, the digital revolution brought by FinTech companies is changing the industry’s structure. In 2016-2018, Commerz Bank, a giant German bank, proclaimed that by 2020 their aim is to digitalize and automate 80% of its processes (CommerzBank, 2018). In Southeast Asia, US$345 million which is 11% of total venture capital was the portion of FinTech (TechCrunch, 2016). The huge number of unbanked population and emerging economies were other factors that attracted the new entrants (PwC, Catching the FinTech Wave, 2016).

2 FinTech and Financial Services: Initial Considerations by IMF staff team
Collaborating with FinTech companies is the most commonly used form of alliance among FinTech companies and Financial Services; according to one report, 35% of the FIs are likely to have joint ventures with FinTech companies.

Partnerships between FinTech and Financial Service permit simple, adaptable and generally minimal risk arrangements for the two players to play off each other's strength. On one hand, occupants can saddle the newcomers’ solutions and technologies, while restricting potential aftermath from inability to what is stipulated in the association assentation. Then again, the technology organizations take advantage from the firm’s financing, and conceivably from their current client connections and brand. In the meantime, these partnerships offer profitable opportunities for the Financial Services and FinTech organizations to distinguish and identify difficulties and work on enhancing their organizations supplement each other (Kelly, Ferenzy, & McGrath, 2017).

In March, an agreement was signed between the Monetary Authority of Singapore, the central bank and Singapore’s financial center to jointly undertake FinTech projects like mobile payments and block chain. The first FinTech accelerator in Gulf region in Dubai has started accepting applications (Startupbootcamp, 2018).

Wamda, a website focusing on regional entrepreneurship reported that there were less than 20 FinTech startups in the Middle East and North Africa in 2010 but the number had risen to 105 by 2015 (The Economist, 2017)

The Gulf region has a concentration of migrant employees who require remittance services. Chris Skinner commented on the region saying, “it also encompasses the region’s many expatriates accustomed to high-quality services, and the local ultra-rich”. FinTech can cater well to this population’s needs. It can bring cost effective services to the four-fifths of the unbanked population, the largest percentage in the world. (The Economist, 2017)

2. Status of FinTech in Islamic Finance

Jarmo Kotilaine, the chief economist at the Bahrain Economic Development Board (EDB) famously summarized: “When it comes to technology, what applies in conventional banking also applies in Islamic banking.” He added: “Using financial technology improves the quality of the banking experience among clients. It influences the speed and accuracy of the experience. Technology makes products more reachable to clients. We’re transitioning toward a situation where growth for companies and economies will have to depend more on productivity than before, to achieve that, you will need better management, better innovations, new distribution channels and new capital” [1]

Fintech for Islamic Finance must observe Shariah guidelines. In general, technology is neutral from Shariah perspective, unless it is used in a instance directly conflicts with any rulings or requirements of the Shariah (Oseni & Ali, 2019). But, how do we determine which FinTech application that requires sensitivity to Shariah requirements? Prof. Akram Laldin, Executive Director ISRA answers this in the following words.

“In order to address these concerns, it is important to note that, in general, Shariah principle with regards to a business transactions (Muamalat) is governed by the notion that every transaction is permissible, except when there is a clear text which prohibits it. The permissible principle provides flexibility in innovation and new practices in business and financial transactions. All innovations in Muamalat, are considered as permissible and welcomed. In this regard, innovations in FinTech become impermissible only if there is clear evidence that they are in conflict (against) the basic rules of the Shariah. Therefore, FinTech application and practices, as in traditional Islamic finance, should follow the principles of the Shariah by avoiding the prohibited elements in the transactions such as interest
(Riba), gambling (Maysir), uncertainty (Gharar), harms (Darar), cheating (Tadlis), etc. It must be transparent with no hidden cost, irresponsible or unethical financing.”

This gives us the fundamental guideline of what ‘Shariah compliance’ means in Fintech. The use of FinTech in a particular Islamic finance product should not be such as to create harm, deception/cheating, hidden costs, nor should it inculcate any Riba, gambling, Gharar, or other prohibited elements such as those that make the sale invalid.

He continued: “Likewise, the practice of transactions in FinTech application should follow the rules of contract (Aqd) used in the transaction by observing the pillars (Rukn) and conditions (Shart) in the contract. In addition, FinTech application should aim at achieving the objectives of the Shariah (Maqāsid Al Shariah), namely, to realize the benefits (Maslahah) and to avoid the harms and difficulties (Mafsadah and Mashaqqah)”

Even though FinTech was not especially well-known within the Islamic Finance industry until late 2015, the progress of 2016 and 2017 demonstrate some wonderful accomplishments. An attempt by FinTech entrepreneurs in start of 2016 turned out to be more deliberate (Raghu, 2017). The accompanying features from the globe are among those which deserve acknowledgment.

**DIB Branchless Banking:** On February 8, 2018 a MoU was signed between Dubai Islamic Bank Pakistan (DIBP) and Zing Digital Commerce for establishing branchless banking platform for DIBP. This move has the potential to pave the way for digitalization of Islamic banking services enabling them to serve the unbanked population in the country. In this arrangement DIBP will partner with Zing Digital Commerce who have worked on a similar project with Shanghai F-Road. This step is an important advancement towards achieving DIBP’s vision of offering quality financial services with convenience and reliability at every customer’s doorstep, starting from the grass root level to the top (The Express Tribune, 2018)

**Meezan UPaisa:** As a result of a strategic partnership between Ufone and Meezan Bank, Meezan Upaisa was launched in 2016 as the first Islamic branchless banking solution. It enabled customers from around Pakistan to send and receive money, pay utility bills and get mobile top ups without having to visit a brick and mortar establishment⁴ (The Express Tribune, 2015).

**Electronic Commodity Murabaha:** Pakistan Mercantile Exchange Limited (PMEX) and Meezan Bank Ltd. Facilitated the country’s electronic Murabaha transaction, an important advancement in the field of FinTech. It aimed to develop the Islamic money and capital markets. Meezan Bank provided Shariah technical services to PMEX in the development of this Shariah compliant trading platform. Earlier, State Bank of Pakistan (SBP) allowed this platform to operate for a pilot period of three months. Meezan Bank Limited (MBL) and Dubai Islamic Bank Pakistan Limited (DIBPL) conducted the first electronic commodity Murabaha transaction on December 26, 2017 (The News International, 2017).

This is a progressive and revolutionary accomplishment in history of Pakistan, which has the capability of providing level playing field to Islamic banks with conventional counterparts in the management of liquidity in a simple, convenient and Shariah compliant manner. This platform can be used by IFIs to cater to liquidity problems of every potential segment, including government. Dr. Mufti Muhammad Imran Usmani, the Shariah advisor of PMEX has given assurance on the Shariah compliance of this product. The Sharia Board of SBP is chaired by renowned scholar Justice (R) Mufti Muhammad Taqi Usmani. Additionally, the Securities and Exchange Commission of Pakistan (SECP) and Islamic Banking Sub Committee of Pakistan Banks' Association has also verified the very product.

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⁴ Note: The strategic partnership between Meezan and Upaisa was later suspended.
Some of the checks that have to be made in a commodity Murabaha transaction, for them to be Shariah compliance:

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<tr>
<td>1. Is there a real non-consumable asset involved?</td>
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<tr>
<td>2. Was the asset changing hands? Did the buyer receive physical or constructive possession of the asset?</td>
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<tr>
<td>3. Is there Bai Inah involved? Is the product being re-sold back to the original seller?</td>
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<tr>
<td>4. Was the commodity clearly specified, e.g. in quality, specification, amount?</td>
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**Investment Account Platform (IAP):** On 17th February 2016 the first multi bank platform in Islamic Financial system was launched in Malaysia with an initial fund of RM 150 million. It aimed to become a central marketplace for financing SMEs. [4]. It was the first Islamic banking, internet-based platform that combined the skills of Islamic banks along with the efficiency of technology for channelizing the investors’ money for feasible commercial projects (Reuters, 2016).

**Islamic Fintech Alliance (IFT Alliance):** Islamic Fintech Alliance was launched on the first April, 2016 by 8 Islamic Crowdfunding Platforms Operators from all over the world in Kuala Lumpur, Malaysia. BlossomFinance (USA/Indonesia), EasiUp (France), EthisCrowd (Singapore), Narwi (Qatar), FundingLab (Scotland/Palestine), KapitalBoost (Singapore), Launchgood (USA) and SkolaFund (Malaysia) are among the founding members of IFT Alliance. The objective of this alliance is to enhance the growth of FinTech among IFIs with the hope that it would have very significant positive impact in the world (McSpadden, 2016).

**Bursa Suq Al Sila:** Being the financial hub for Islamic Finance, Malaysia made its position much stronger by initiation of trade on the world’s first completely Shariah compliant, electronic commodity trading platform, called Bursa Suq Al Sila. It is a global commodity platform for facilitating asset-based Islamic financing and investment transactions under the Shariah guiding principles of Murabahah, Tawarruq and Musawwamah. The underlying commodity in Bursa Suq Al Sila is crude palm oil (CPO). It is an initiative by the Malaysia International Islamic Finance Center (MIFC). The trading platform is operated by Bursa Malaysia via its fully Shariah-compliant wholly owned subsidiary, Bursa Malaysia Islamic Services Sdn. Bhd (Islamic Finance News, 2013).

**Wahed-Islamic investment platform:** The World’s first automated Islamic investment platform was launched by New York-based Wahed Invest Inc. with the aim of delivering halal portfolio management for more than 2 billion people especially Muslims across the globe. Parallel to be the first automated ethical investment platform in the world, Wahed offers lower minimum investment amount of USD 7,500. Wahed, at the time of its start, was only available in the United States but had a vision of being rolled out to more than 100 countries worldwide by 2019 (Business Wire, 2019).

**The First Global Islamic FinTech Hub:** Finocracy reported “The First Global Islamic Fintech Hub” in “Future Finance 2030”, which would be the point of convergence of the fast developing Islamic FinTech space. This FinTech hub will be at CH9, the main aim is to boost the entrepreneurship ecosystem in Bahrain and GCC. The plan includes a virtual network that connect various businesses, executive educational programs and a global hackathon series which will help encouraging Fintech development in IFIS across all emerging markets (Corporate Hub, 2016).

### 3. Challenges and Opportunities of FinTech

Perhaps future of FinTech is a dark cloud with silver linings, the major threats or the challenges arising from the revolution of FinTech includes regulatory risks, downward pressure on margins and information security.

If the regulatory aspect is ignored, it can lead to missed opportunities in FinTech investments. IFIs and technology players could be seeking regulators as heading for direction towards FinTech for investment. Currently the regulatory development for FinTech is at its very early stage, there is a requirement for profound discussions and continuous engagement between regulators, IFIs and FinTech partnership for
building trust over the new FinTech environment is very necessary. In the meantime, the vast variety of FinTech and its diversified business plans make it challenging for regulators to build up a one-size fits-all regulatory framework. For this reason, deep conversations and regular meetings and engagement between regulators, IFIs and FinTech partners in the current early stage of regulatory development is very crucial and necessary for building clarity and trustful environment.

Since most FinTech companies have an asset-light, digital focus business model, they have a competitive edge over traditional IFIs in terms of costs and scale. There is no requirement to own information technology themselves; they can hire or outsource the cloud for operational infrastructures. Thus, these new market players challenge the industry by capturing business opportunities and empowering competitors by offering their services to them.

Threat to information security and private is another challenge. Currently, this issue is very important. The adequacy of current security standards and protocols is questioned considering high number of cyber security events in recent years. PwC’s Global State of Information Security Survey 2016 reported a 38% rise in security incidents detected globally in 2015 than in 2014.

Decreased market share and increased customer churn rate is another big challenge. FinTech allows customized and online solutions like robo-advisors and peer-to-peer lending platforms that are cheap, easy to use and conveniently available. This results in a loss of market share. However, despite all these considerations, many IFIs believe that customers are not ready for completely substituting their services with FinTech innovations, which is the major reason why increased customer churn is not a big concern.

But flipping the coin, there is a high level of trust in FinTech. The recognition that FinTech just represents a generally low risk of increased client churn for IFIs might be because of the time it takes for startups to develop clients' trust and build their reputation and brand image. In any case, new arrivals in FinTech can collaborate with IFIs, technology and telecommunication companies to benefit from their image and fasten the process toward building trust. The above situation features the dynamic idea of the FinTech environment. The perception of customer can move and FinTech players can approach third party brands and influencers for creating trust.

**Differentiation** is perhaps the most sought-after opportunity arising from FinTech, as selected by 87% of Malaysian respondents in PWC’s survey. This advantage is specifically valuable in a well matured, competitive and developed IFIs.

As FinTech is relatively new, the IFS and FinTech companies, by joining hands together, can easily distinguish, discriminate and differentiate themselves from the rivals. They have a chance of being the premier ones, especially in developing countries’ markets like Pakistan to provide new innovative product offerings. Therefore, differentiation due to FinTech is important to IFIs.

**The Reduced Costs** is another major opportunity for adoption of FinTech. These efficient and cost-effective service solutions like software as-a-service (SaaS) are shifting the structure from physical channels digital and mobile delivery. IFIs’ partnerships with FinTech companies can improve, rationalize, and streamline IFIs’ operations with less operational costs. Moreover, the “asset-light” models that FinTech companies use, can be looked by IFIs to reap the fruits of cost reduction.

**Improved Customer Retention**: The FinTech solutions for IFIs can offer healthier customer engagement, with more touchpoints and better relations through more frequent interactions. This would directly hit customer loyalty in a positive way.

### References


Price Levels and Poverty Nexus: A Case Study of Pakistan

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2 Associate Professor, School of Economics Bahauddin Zakariya University, Multan Pakistan: ramzansheikh@bzu.edu.pk
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ARTICLE DETAILS

ABSTRACT

The study has examined the relationship between price levels and poverty over the period of 1982-2015 in Pakistan by employing Auto Regressive Distributed Lag Model (ARDL). It is the pioneer empirical study on the topic in Pakistan. The study has revealed mixed findings between the price levels and poverty both at aggregated and disaggregated levels. The study has also suggested policies to reduce poverty according to the various price levels investigated in the assorted models.

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1. Introduction

Poverty is a state where an individual survives below the poverty line. The individual hardly satisfy or cannot get daily needs such as shelter, food, education, and health care. Economically, the poor are trapped in the vicious circle of poverty he does not has enough money to fulfill his essential wants. The vicious circle of poverty can be explained by the quotes ‘a person is poor because he is poor’ which implies that the poor do not even have enough money to fulfill their basic needs, so, they are unable to avail opportunities such as education and business to break poverty trap. If poor country is hit by inflation, the poor are losers rather the rich ones. In reality, the case becomes worse when we talk about the food inflation. The theory of development economics highlighted the distributional effects of increasing price level in the economy and its potentially disturbing results for the poor. Unanticipated price rise has been worse than expected which erodes the real incomes of the poor making them to avail the fewer goods and services than before. The unanticipated increase in price level in the economy also affects various social security benefits such as time lags in adjustment of unemployment benefits, old-age benefits and pensions. Third world countries present picture in this regard World Bank (2004) stated that 1.2 Billion (20%) of world population is consuming 1% of total world production.

Poverty is crucial issue worldwide but stands as a rural phenomenon in developing countries like Pakistan. Pakistan like other developing countries, is striving with high poverty rate and inflation has increased it further in Pakistan.

5US $ 1.90 income per day is poverty line defined by World Bank.
(Chani et al., 2011). The Government of Pakistan has not been successful in addressing the issue of poverty while the growth-oriented policies have inspired the economists of Pakistan without distribution intent.

The present research is an attempt to explore the relationship between price level changes and poverty in Pakistan. The study not only measures the impact of changes in aggregate price level but also disaggregates the Consumer Price Index (CPI) and Wholesale Price Index (WPI) to observe their influence on Pakistan’s poverty. This decomposition of the price levels is expected to provide us an additional insight about the components of price levels along with their influence on Pakistan’s poverty.

The study is novel on two grounds. Firstly, to the best of authors ‘knowledge, the disaggregation of both CPI and WPI in terms of their components is used for the first time in Pakistan. Secondly, different base years have been converted into a common base year using the splicing\(^6\) method. Rest of the discussion is structured as under: Section 2 presents the review of assorted literature while section 3 is devoted to methodology and model specification employed in this study. Section 4 elaborates models used in the analysis along with description of variables. Section 5 presents results of unit root test, Bounds test, while section 6 consists of the long run analysis with error correction analysis. The final part concludes with policy implications and an agenda for future research.

2. Review of Assorted Literature

Inflation has been the cruelest tax of all time, people have been influenced by it more than anything else because for the poor finance is the life blood. The burden of high prices, especially of basic food items, has become intolerable for poor households while poverty is consequently on the rise again. Whatever decline was achieved in poverty, appears to have been wiped out. Prices have risen sharply around the world in the past few decades, with data suggesting acceleration in the trend over the recent past. A bird’s eye view of previous works unveiled that there exist positive and negative relationships among inflation, poverty around the world. Positive correlation implies that with an increase in price level, there is decrease purchasing power of the people, Skyrocketing prices hurt poor the most by reducing their real income that caused more poverty among them. The careful examination of the literature revealed the positive linkage between inflation and poverty which implies increasing level of income increase the rift between the poor and the rich. The rich has more facilities as it was availed by their forefathers and the poor has more deprivations as compared to their forefathers. The literature also revealed negative correlation between inflation and poverty which implies an increase in price level decreased the poverty. The paradox of results is based on distribution structure of the economy. The negative relations hip between inflation and the poverty was seen because of the strong government protection against inflation in form of subsidies, strong workers union, pre-trade cycle era and politically bulged fiscal policy.

The impact of the poverty has always been more adverse in case of galloping inflation. The rise in the price levels at one side reduces the real wages of the poor while on the other hand, it makes the basket of goods inapproachable for the poor. Resultantly, the deprivations of the poor have intensified further. A snapshot of some of the studies in context of the issue is presented in Table 1 below.

<table>
<thead>
<tr>
<th>Reference(s)</th>
<th>Time period</th>
<th>Country</th>
<th>Model Specification</th>
<th>Methodology</th>
<th>Main Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belongia (1985)</td>
<td>1954-85</td>
<td>U.S.A</td>
<td>FPr=f(M1-UM1)</td>
<td>OLS</td>
<td>The findings pointed out accepted the hypothesis inflation was positively correlated with M1 growth.</td>
</tr>
<tr>
<td>Cardoso (1992)</td>
<td>1974-1984</td>
<td>Cross country</td>
<td>Pov=f(Inf)</td>
<td>OLS</td>
<td>The relationship between inflation and poverty proved significant.</td>
</tr>
<tr>
<td>Amble and Stewart</td>
<td>1987-1993</td>
<td>United States</td>
<td>Pov = f (Inf)</td>
<td>CPI-Urban CPI-Elderly and CPI-Wage Earners</td>
<td>The study identified that the inflation affected households with respect to their consumption pattern.</td>
</tr>
</tbody>
</table>

\(^6\)The conversion of two different base years into one base year is called data splicing. (Asteriou and Hall, 2007).
<table>
<thead>
<tr>
<th>Chaudhary and Ahmed (1996)</th>
<th>1972-1992</th>
<th>Pakistan</th>
<th>Pov=f(MS, expected, Inf(e),DS)</th>
<th>2SLS</th>
<th>The study basically supported the hypothesis that inflation increases the cost of living in Pakistan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garner et al. (1996)a</td>
<td>1982-84, 1992-94</td>
<td>United</td>
<td>Pov=f(Inf)</td>
<td>Laspeyre’s index, Paasche Index and Fisher Ideal index</td>
<td>The study demonstrated the result that poor subgroups faced the higher inflation and inflation cost than the overall population.</td>
</tr>
<tr>
<td>Ravellion (2000)</td>
<td>1958-94</td>
<td>India</td>
<td>Pov=f(Inf,w)</td>
<td>Head Count Ratio, Squared Poverty Gap</td>
<td>The positive relationship between poverty and inflation was significant.</td>
</tr>
<tr>
<td>Easterly and Fisher (2001)</td>
<td>1995</td>
<td>Cross country</td>
<td>Pov=f(Inf, HY, Edu, Reg Ext, Cyc Un)</td>
<td>Dummy variable, OLS</td>
<td>The result pointed out that very poor was more concern among developed countries. The very poor were 14% more concern about inflation as compared to 9% in case of developing and transitional economies.</td>
</tr>
<tr>
<td>Deaton. (2003)</td>
<td>National Sample Survey 43th, 50th and 55th</td>
<td>India</td>
<td>Pov=f(Inf)</td>
<td>Laspeyre’s index, Paasche index, Tornquist index, poverty line deflator and Head Count Ratio</td>
<td>The study unveiled the result that all the Indian states affected by the inflation but the states with low income group provinces such as Assam and Bihar the condition turned more worse.</td>
</tr>
<tr>
<td>Wodon et al. (2008)</td>
<td>2003-2007</td>
<td>Cross Country</td>
<td>Pov=f(food Inf)</td>
<td>FGT (1984)</td>
<td>The result of the study clarified that the galloping price increase the poverty in the 12 selected countries.</td>
</tr>
<tr>
<td>Lyssiotou (2008)</td>
<td>2003</td>
<td>Cyprus</td>
<td>Pov = f (Inf)</td>
<td>CPI and OECD deflator of World Bank</td>
<td>The report revealed that the impact of inflation diffused among poor hastily.</td>
</tr>
<tr>
<td>Henriksen and Kydland (2010)</td>
<td>1954 and 1994</td>
<td>United States</td>
<td>Pov=f(Inf, Tra Tec, seignorage, SOBS.)</td>
<td>OLS</td>
<td>The study revealed that inflation affected the poor class of consumers because they had modicum access to transaction technologies.</td>
</tr>
<tr>
<td>Coleman (2012)</td>
<td>2006-2012</td>
<td>Ghana</td>
<td>Pov = f (Inf)</td>
<td>The Modified Log Periodogram Regression</td>
<td>The study identified the fact that nine out of regions of Ghana poverty was aggravating due to inflation.</td>
</tr>
<tr>
<td>Wood et al. (2012)</td>
<td>2006-2009</td>
<td>Mexico</td>
<td>Pov=f(food Inf)</td>
<td>cross price elasticities</td>
<td>The study manifested that a 24%-25% price spike leads to the 45%-65% income loss among poor Mexicans.</td>
</tr>
<tr>
<td>Estrades and Terra (2012 )</td>
<td>2006-08</td>
<td>Uruguay</td>
<td>Pov=f(food Inf, fuel Inf)</td>
<td>Computable General Equilibrium Model, Micromutation Approach</td>
<td>The inference showed positive impact of inflation on poverty with “DUTCH DISEASE” that the output increased in export sector only while in other sectors of economy inflation dragged the poor into poverty.</td>
</tr>
<tr>
<td>Authors</td>
<td>Period</td>
<td>Country</td>
<td>Poverty Equation</td>
<td>Methodology</td>
<td>Results</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------</td>
<td>---------------</td>
<td>------------------</td>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fujii (2013)</td>
<td>2006-08</td>
<td>Philippines</td>
<td>( \text{Pov} = f(\text{Inf}) )</td>
<td>Non-parametric regression</td>
<td>The study strongly supported the hypothesis that the inflation was correlated with poverty.</td>
</tr>
<tr>
<td>Arndt et al. (2015)</td>
<td>2007-2009</td>
<td>Mozambique</td>
<td>( \text{Pov} = f(\text{Fop}, \text{Fup}) )</td>
<td>CPI Inflation GDP Deflator Inflation</td>
<td>The skyrocketing prices forced the poor to consume less food and fuel that increased the level of poverty in Mozambique.</td>
</tr>
<tr>
<td>Wood et al. (2016)</td>
<td>2008-2010</td>
<td>Mexico</td>
<td>( \text{Pov} = f(\text{Fop}, \text{Pedu}, \text{Pot}, \text{Pohl}, \text{Poh}) )</td>
<td>OLS</td>
<td>The study concluded that with the increased in the prices of food, housing, health, transportation and housing the poverty increased in Mexico.</td>
</tr>
<tr>
<td>Loayza and Rigolini (2016)</td>
<td>1990-2012</td>
<td>Peru</td>
<td>( \text{Pov} = f(\text{Inf}) ) ( \text{Ineq} = f(\text{Inf}) )</td>
<td>OLS</td>
<td>The study explored that in non-producing districts the impact of inflation was positive on poverty and inequality and the vice versa in case of producing districts due to better system of distribution.</td>
</tr>
<tr>
<td>Moncarz et al. (2016)</td>
<td>2003-2010</td>
<td>Argentina</td>
<td>( \text{Pov} = f(\text{Inf}) )</td>
<td>Prices elasticities</td>
<td>The results manifested that rising prices reduced the real wages in Argentina that enhance the poverty in the region. The results were reversed in case of subsidies.</td>
</tr>
<tr>
<td>Moser and Schnetzer (2017)</td>
<td>1985-2015</td>
<td>Austria</td>
<td>( \text{Pov} = f(\text{Inf}) )</td>
<td>Spatial Regression Analysis</td>
<td>The inferences showed that increase in inflation increased poverty.</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

3. Methodology
To analyze the long-run and short-run correlation of variables the study has applied an auto regressive distributed lag model (ARDL). The reason to apply of the ARDL approach is due to mixed results of stationarity and non stationarity of variables.

3.1 Data Handling and Sources
The disaggregated data of consumer price index and wholesale price index employed in this study are collected from Pakistan Economic survey from 1982-2015. The comprising variables of consumer price index was subject to change over time that’s why the study set 1982-1999 components of CPI and WPI and added the relevant variables of further periods such as from 1992-2007 data of education are added in recreation entertainment and education, data of health is added is added cleaning laundry and personal appearance. Data of fuel and lightning are added in energy. Data of 2008-2015 were also arranged, transportation and communication both are averaged to make one slot as per standard. Data of fuel and lightning are added in energy. Similarly, for the WPI six components variables were added relevant variables such as from 2008-2015 agricultural forestry and fishery products are added in raw material, ores and minerals, electricity and gas is added in the fuel lightning and lubricants and metal products, machinery and equipment added in the manufacturing. The data of price levels were not at same base, so, data splicing method was utilized to create same base series of data. The base year is 2001. Head Count Ratio (hcr) and Poverty Gap (pg) used as proxies of poverty as independent variable. The data of hcr are availed from World Development Indicators (WDI). The data of hcr for Pakistan is available on web source of trading economics and quandle. The data of poverty gap are gathered from WDI, however, the data were missing and completed by using linear interpolation and extrapolation techniques. The data of price levels were also gathered from Pakistan Economic Survey. This study applied linear extrapolation for year 1982-86 and 2015-15, while data completed by


The study is based on estimating the impact of price level on poverty in Pakistan. In the study, the dependent variable is poverty. For poverty measurement the head count ratio and poverty gap are employed. The study included the disaggregate price levels, consumer price index (CPI) and wholesale price index (WPI) to analysis their impact on poverty in Pakistan. The consumer price index is decomposed in ten components and wholesale price index is decomposed in six components as per composition of Pakistan standard set by ministry of finance and state bank of Pakistan. Poverty scenario also analyzed by aggregate model of consumer price index, wholesale price index, GDP deflator and sensitive price index (SPI). The study has developed six models 1 and 2 consist of CPI components. The models 3 and 4 are comprised on WPI components and model 5 and 6 consists on aggregate price levels. The functional form, econometric models with expected signs of variables are as discussed below.

3.2 Model Specification and Description of Variables
Following models are used to explore the nexus between price levels and poverty. We have specified two types of models to estimate the nexus between price levels and poverty. The reason behind disaggregation of price levels is that it provides additional insight of impact on poverty of components of price levels. The variables used in the study are taken from the extant literature with the explanation in table 2 below.

Table 2: Description of Variables

<table>
<thead>
<tr>
<th>Name of Variable</th>
<th>Description</th>
<th>Name of Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hcr</td>
<td>Head count ratio ($1.90 per day (2011 PPP))</td>
<td>gdpdi</td>
<td>Gross domestic product deflator inflation</td>
</tr>
<tr>
<td>Pg</td>
<td>Poverty gap ($1.90 a day (2011 PPP))</td>
<td>fbti</td>
<td>Inflation on food, beverages and tobacco products</td>
</tr>
<tr>
<td>Atfi</td>
<td>Apparel textiles and foot ware inflation</td>
<td>hfei</td>
<td>House furniture and equipment inflation</td>
</tr>
<tr>
<td>Hri</td>
<td>House rent inflation</td>
<td>tci</td>
<td>Transportation and communication inflation</td>
</tr>
<tr>
<td>Ei</td>
<td>Energy inflation</td>
<td>fi</td>
<td>Food inflation</td>
</tr>
<tr>
<td>Reei</td>
<td>Recreation entertainment and education inflation</td>
<td>rmi</td>
<td>Raw material inflation</td>
</tr>
<tr>
<td>Clpai</td>
<td>Cleaning laundry and personal appearance inflation</td>
<td>flli</td>
<td>Fuel lightning and lubricants inflation</td>
</tr>
<tr>
<td>Mi</td>
<td>Miscellaneous inflation</td>
<td>bmi</td>
<td>Building material inflation</td>
</tr>
<tr>
<td>Gi</td>
<td>General inflation</td>
<td>cpii</td>
<td>Consumer price index inflation</td>
</tr>
<tr>
<td>Wpii</td>
<td>Wholesale price index inflation</td>
<td>spii</td>
<td>Sensitive price index inflation</td>
</tr>
</tbody>
</table>

Note: all the variables are in annual percentage form.

3.3 Disaggregated Models
The disaggregate models are based on disaggregation of CPI and WPI components to explore their relationship with poverty.

Model 1: Head Count Ratio (hcr) with disaggregated CPI
The model explains the relationship between the poverty and disaggregated CPI. For poverty measurement the model used the headcount ratio. The functional form is as under:
\[ hcr = f(\text{atfi, hri, reei, clpai, mi, gi, fbti, hfei, tci}) \]

The econometric form is as under:
\[ hcr = \beta_1 + \beta_2\text{atfi} + \beta_3\text{hri} + \beta_4\text{reei} + \beta_5\text{clpai} + \beta_6\text{mi} + \beta_7\text{gi} + \beta_8\text{fbti} + \beta_9\text{hfei} + \beta_{10}\text{tci} + \epsilon \]
\[ \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10} > 0 \]  

**Model 2: Poverty Gap (pg) with disaggregated CPI**

The model explores the correlation between poverty and disaggregated CPI. For poverty measurement, the model used the poverty gap index. The functional form of the model is given:
\[ pg = f(\text{atfi, hri, ei, reei, clpai, mi, gi, fbti, hfei, tci}) \]

The econometric equation of the model is as under:
\[ pg = \beta_1 + \beta_2\text{atfi} + \beta_3\text{hri} + \beta_4\text{ei} + \beta_5\text{reei} + \beta_6\text{clpai} + \beta_7\text{mi} + \beta_8\text{gi} + \beta_9\text{fbti} + \beta_{10}\text{hfei} + \beta_{11}\text{tci} + \epsilon \]
\[ \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11} > 0 \]

**Model 3: Head Count Ratio (hcr) with disaggregated WPI**

The model explicates the relationship between poverty and disaggregated WPI. For poverty measurement, the model uses the headcount ratio. The functional form of the model is given:
\[ hcr = f(\text{gi, fi, rmi, flli, mi, bmi}) \]

The econometric model is given below:
\[ hcr = \beta_1 + \beta_2\text{gi} + \beta_3\text{fi} + \beta_4\text{rmi} + \beta_5\text{flli} + \beta_6\text{mi} + \beta_7\text{bmi} + \epsilon \]
\[ \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 > 0 \]

**Model 4: Poverty Gap (pg) with disaggregated WPI**

The model estimates the relationship between the poverty and disaggregated WPI. For poverty measurement, the model used the poverty gap index. The functional form of the model is given:
\[ pg = f(\text{gi, fi, rmi, flli, mi, bmi}) \]

The econometric model takes the following form:
\[ pg = \beta_1 + \beta_2\text{gi} + \beta_3\text{fi} + \beta_4\text{rmi} + \beta_5\text{flli} + \beta_6\text{mi} + \beta_7\text{bmi} + \epsilon \]
\[ \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7 > 0 \]

### 3.4 Aggregate Models

The aggregate models make use of the aggregate price levels to compute the inflation rates such as CPII WPII SPII and GDPDI.

**Model 5: Head Count Ratio (hcr) with Aggregate Price Levels**

The model illustrates the relationship between poverty and disaggregated WPI. For poverty measurement, the model has used the hcr index. The functional form of the model is as under:
\[ hcr = f(\text{cpii, wpii, spi, gdpdi}) \]

The econometric form is as follows:
\[ hcr = \beta_0 + \beta_1\text{cpii} + \beta_2\text{wpii} + \beta_3\text{spi} + \beta_4\text{gdpdi} + \epsilon \]
\[ \beta_0, \beta_1, \beta_2, \beta_3, \beta_4 > 0 \]

**Model 6: Poverty Gap (pg) with Aggregate Price Levels**

The model explicates the linkage between poverty and aggregate price levels. For poverty measurement, the model has used the poverty gap index. The functional form of the model is given as under:
\[ pg = f(\text{cpii, wpii, spi, gdpdi}) \]

The econometric form of the model is presented below:
\[ pg = \beta_0 + \beta_1\text{cpii} + \beta_2\text{wpii} + \beta_3\text{spi} + \beta_4\text{gdpdi} + \epsilon \]
\[ \beta_0, \beta_1, \beta_2, \beta_3, \beta_4 > 0 \]

### 4. Results and Discussions
The results of disaggregated and aggregated models are in following.

4.1 Unit Root Analysis
Stationarity and non stationarity of variables in the model is checked by the unit root test. Stationarity condition revealed constant mean and variance of the variable and vice versa for non stationarity. The test that is involved to check the stationarity and non stationarity of variables is called Augmented Dicky Fuller (ADF) test. I(0) and I(1) showed that variable is stationarity and stationarity at first difference, respectively.

Table 3: Results of Unit Root Test of CPI Disaggregated Model (1982-2015)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Intercept</th>
<th>Lags</th>
<th>Trend and Intercept</th>
<th>Lags</th>
<th>None</th>
<th>Lags</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>hcr</td>
<td>-1.1426 (0.6864)</td>
<td>0</td>
<td>-1.3020 (0.8693)</td>
<td>0</td>
<td>-1.0678 (0.2521)</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td>pg</td>
<td>-1.9098 (0.556)</td>
<td>0</td>
<td>-1.5813 (0.499)</td>
<td>1</td>
<td>-0.9541 (0.2963)</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td>gi</td>
<td>-6.0184 (0.000)</td>
<td>0</td>
<td>-6.9961 (0.001)</td>
<td>0</td>
<td>-6.3719 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>fhti</td>
<td>-6.0433 (0.000)</td>
<td>0</td>
<td>-6.06981 (0.000)</td>
<td>0</td>
<td>-6.2864 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>atti</td>
<td>-6.4383 (0.002)</td>
<td>0</td>
<td>-6.6198 (0.000)</td>
<td>0</td>
<td>-6.6380 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>hri</td>
<td>-6.8482 (0.000)</td>
<td>0</td>
<td>-6.8363 (0.000)</td>
<td>0</td>
<td>-6.3430 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>ei</td>
<td>-6.6328 (0.000)</td>
<td>0</td>
<td>-6.6786 (0.000)</td>
<td>0</td>
<td>-6.1096 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>hfei</td>
<td>-6.2068 (0.000)</td>
<td>0</td>
<td>-6.2672 (0.007)</td>
<td>0</td>
<td>-6.6067 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>tci</td>
<td>-6.2679 (0.000)</td>
<td>0</td>
<td>-6.1836 (0.000)</td>
<td>0</td>
<td>-6.6348 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>reei</td>
<td>6.8166 (0.000)</td>
<td>0</td>
<td>-6.7611 (0.005)</td>
<td>0</td>
<td>-6.3311 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>clpai</td>
<td>-6.1268 (0.000)</td>
<td>0</td>
<td>-6.077 (0.000)</td>
<td>0</td>
<td>-6.0063 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>mi</td>
<td>-6.8719 (0.000)</td>
<td>0</td>
<td>-6.9064 (0.000)</td>
<td>0</td>
<td>-6.4030 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations
Note: MacKinnon p-values at 5% Level are -2.967110, -3.66776 and -1.961687 for Intercept, Trend and Intercept and None respectively.

Table 3 shows the ADF unit root test for the CPI components for Pakistan. The hcr and pg are stationary at first difference I(1) and remaining variables are stationary at I(0).

Table 4: Results of Unit Root Test of WPI Disaggregated Model (1982-2015)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Intercept</th>
<th>Lags</th>
<th>Trend and Intercept</th>
<th>Lags</th>
<th>None</th>
<th>Lags</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>hcr</td>
<td>-1.1426 (0.6864)</td>
<td>0</td>
<td>-1.3020 (0.8693)</td>
<td>0</td>
<td>-1.0678 (0.2521)</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td>pg</td>
<td>-1.9098 (0.556)</td>
<td>0</td>
<td>-1.5813 (0.499)</td>
<td>1</td>
<td>-0.9541 (0.2963)</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td>gi</td>
<td>-6.0968 (0.000)</td>
<td>0</td>
<td>-6.0740 (0.000)</td>
<td>0</td>
<td>-6.3166 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>fi</td>
<td>-6.0962 (0.000)</td>
<td>0</td>
<td>-6.077 (0.000)</td>
<td>0</td>
<td>-6.3498 (0.004)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>rmi</td>
<td>-6.3407 (0.000)</td>
<td>0</td>
<td>-6.3316 (0.000)</td>
<td>0</td>
<td>-6.6367 (0.000)</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td>Flli</td>
<td>-6.6243</td>
<td>0</td>
<td>-6.4644</td>
<td>1</td>
<td>-6.0838</td>
<td>0</td>
<td>I(0)</td>
</tr>
</tbody>
</table>
Source: Authors’ calculations

The above table reveals that hcr and pg are stationary at I(1) while all other variables are stationary at I(0).

Table 5: Results of Unit Root Test of Aggregate Price Levels Model (1982-2015)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Intercept</th>
<th>Lags</th>
<th>Trend and Intercept</th>
<th>Lags</th>
<th>None</th>
<th>Lags</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hcr</td>
<td>-1.1426</td>
<td>0</td>
<td>-1.3020</td>
<td>0</td>
<td>-1.0678</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>(0.6864)</td>
<td></td>
<td>(0.8693)</td>
<td></td>
<td>(0.2521)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pg</td>
<td>-1.9098</td>
<td>0</td>
<td>-1.5813</td>
<td>1</td>
<td>-0.9541</td>
<td>0</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>(0.556)</td>
<td></td>
<td>(0.499)</td>
<td></td>
<td>(0.2963)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gdpdi</td>
<td>-6.1439</td>
<td>0</td>
<td>-6.0736</td>
<td>0</td>
<td>-4.6702</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td>(0.000)</td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wpii</td>
<td>-6.4637</td>
<td>0</td>
<td>-6.8981</td>
<td>8</td>
<td>-4.8346</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td>(0.006)</td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cpii</td>
<td>-3.0296</td>
<td>1</td>
<td>-3.0704</td>
<td>0</td>
<td>-1.2417</td>
<td>1</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>(0.424)</td>
<td></td>
<td>(0.569)</td>
<td></td>
<td>(0.009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spii</td>
<td>-6.8061</td>
<td>0</td>
<td>-7.2183</td>
<td>1</td>
<td>-6.1139</td>
<td>0</td>
<td>I(0)</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td>(0.000)</td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

Note: MacKinnon p-values at 5% Level are -2.967110, -3.66776 and -1.961687 for Intercept, Trend and Intercept and None, respectively.

Table 5 shows the ADF unit root test for the aggregate price levels for Pakistan. The Table 5 reveals that hcr and pg are stationary at I (1) while all other variables are stationary at I (0).

4.2 Bounds Test Analysis

In this section, Table 6 shows the bounds test of CPI, WPI components and aggregate price level with the poverty models which are model one to six. The bounds test is applied to check whether ARDL is applicable or not. To apply the ARDL F-statistics of the model must be between upper and lower bounds value.

Table 6 illustrates the bound values of CPI, WPI disaggregate and aggregate models with hcr and pg. The results represent that all the values of F-statistics are between the bounds extreme values that means the long run correlation exist.

Table 6: Bounds Test Results of Model 1 2 3 4 5 and 6

<table>
<thead>
<tr>
<th>Models</th>
<th>F-statistic</th>
<th>At 5 % level of Significance</th>
<th>At 10 % level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Io Bound</td>
<td>I1 Bound</td>
</tr>
<tr>
<td>Model 1</td>
<td>6.97</td>
<td>2.33</td>
<td>3.46</td>
</tr>
<tr>
<td>Model 2</td>
<td>37.0</td>
<td>2.33</td>
<td>3.46</td>
</tr>
<tr>
<td>Model 3</td>
<td>26</td>
<td>2.86</td>
<td>4.01</td>
</tr>
<tr>
<td>Model 4</td>
<td>4.83</td>
<td>2.86</td>
<td>4.01</td>
</tr>
<tr>
<td>Model 5</td>
<td>26.4</td>
<td>2.86</td>
<td>4.01</td>
</tr>
<tr>
<td>Model 6</td>
<td>4.38</td>
<td>2.86</td>
<td>4.01</td>
</tr>
</tbody>
</table>

Source: Authors’ Calculation

4.3 Results of the Models: Long run Analysis

This section illustrates the long run results of the model one and two. The models in Table 5 use the headcount ratio and the poverty gap index to estimate the incidence of the poverty and depth of the poverty due to the change in the prices of the CPI components. Table 6 reveals the long run results of the model three and four. The model
three and four in Table 6 estimate the incidence of the poverty and depth of the poverty due to the change in the prices of the WPI components. Table 7 explicate the long run results of the model five and six, the models estimate the incidence of the poverty and depth of the poverty due to the change in aggregate price levels.

4.3.1 Long Run Results of Poverty Models (CPI Disaggregated Analysis)

The long run results of the CPI components with poverty are shown in the Table 7. Table 7 manifests the impact of price levels on hcr and pg in Pakistan. The significant positive impact of price levels on hcr and pg in Pakistan is revealed. The positive relationship is justified by following the reasons.

Firstly, when price level increases the real income of the poor decreases which causes the reduced number of goods and services available for consumption of the poor that ultimately increases the poverty in Pakistan. Ravillon (2000) also explained that an increase in the prices was associated with the decrease in the real wages which dwindle the amount of goods purchased by the poor and increases the incidence and depth of poverty. Son and Kakwani (2006) explored that the poverty increased due increase in price level and decrease in real wages. So, through the increase in price levels the poverty increases in Pakistan. Our results are supported by the Son and Kakwani (2006) and Coleman (2012).

### Table 7: Long run Results of Poverty Models (Disaggregated Analysis, 1982-2015)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models (Disaggregated)</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV: (hcr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atfi</td>
<td>1.172776 (0.4442)</td>
<td>2.971306 (0.1248)</td>
<td></td>
</tr>
<tr>
<td>Hri</td>
<td>-6.661729 (0.0341)</td>
<td>-3.664677 (0.0806)</td>
<td></td>
</tr>
<tr>
<td>Ei</td>
<td>2.214144 (0.0646)</td>
<td>3.129616 (0.0842)</td>
<td></td>
</tr>
<tr>
<td>Reei</td>
<td>-4.841262 (0.0182)</td>
<td>4.478097 (0.0763)</td>
<td></td>
</tr>
<tr>
<td>Clpai</td>
<td>-2.076163 (0.0096)</td>
<td>0.668390 (0.1462)</td>
<td></td>
</tr>
<tr>
<td>Mi</td>
<td>4.613011 (0.0381)</td>
<td>0.808379 (0.3114)</td>
<td></td>
</tr>
<tr>
<td>Gi</td>
<td>8.226677 (0.0486)</td>
<td>-8.344036 (0.0663)</td>
<td></td>
</tr>
<tr>
<td>Fbti</td>
<td>1.798669 (0.0767)</td>
<td>2.218618 (0.1641)</td>
<td></td>
</tr>
<tr>
<td>Hfei</td>
<td>-0.976716 (0.6443)</td>
<td>-7.446464 (0.0769)</td>
<td></td>
</tr>
<tr>
<td>Tci</td>
<td>-0.224122 (0.8087)</td>
<td>0.143048 (0.8683)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.846381 (0.0123)</td>
<td>-0.062170 (0.6216)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations
Note: The parenthesis values are probability values

Secondly, in the political economy of Pakistan the political competition among the political parties to win the voters and the for the justification of the dictatorship the public expenditures increased, in absence of strong tax base the tax rate increased to meet escalated public expenditures. The amplifying tax burden only increases the price levels and increases the poverty as well. Sachs (1989) highlights that weak political structure, instability and pressure groups laid burden on the inflationary financing of government that leads to the hyperinflation, increase in

Thirdly, the weak bargaining power of the workers union also increases poverty, as the price level increases in the economy the weak bargaining power of workers union is unable to negotiate the wages, so, at same monetary wages the increased price level reduces real wages which make the workers to cut consumption of goods and services that increases the poverty. Albanesi (2006) reveals that the price shocks reduces the real wages of the workers with weak bargaining power and enhances the level of poverty. The author further highlighted that the monetary and fiscal policies, income tax and wage rate determination are the bargaining game between governments and the pressure groups. Our results are also advocated by (Jacoby, 2016).

Fourthly, the poor system of indexation contributes to the amplifying the hcr and pg in our results. When the price level increases in the economy the poor system of indexation cannot compensate the people influenced severely because the indexation has not properly established or managed, so, it contributes to the increase in hcr and pg. Boskin et al. (1998) elucidates that reduction in the poverty and income in equality based on the proper information of the poor and to establish efficient system of indexation to compensate the poor in cases of price spike. The results our study are backed by Amble and Stewart (1994) and Easterly and Fisher (2001).

Fifthly, shopping time approach explains the positive impact of price level on hcr and pg. The unavailability or poor access to the delayed transaction instruments for spending money increases poverty. The households with fewer access to delayed transaction methods inflamed more by the price level spike. Cysne et al. (2006) explains that inadequate access to the modern delayed transaction technologies cause households ‘welfare loss. The results are consistent with the Henriksen and Kydland (2010).

Table 5 also reveals the negative association among price levels, hcr and pg. The paradox results explain that with increase in price level the hcr and pg reduce. The reasons for the paradox association are as under,

Firstly, in the presence of subsidies and social security benefits reduces the hcr and pg despite price spike. When price level increases in the economy the subsidies and social security benefits provided by the government increases the monetary income of the people and the people become more immune to the price hike. Achdut and Bigman (1991) elaborates the phenomenon that despite skyrocketing prices the provision of subsidies and social security benefits abolish the inflationary influence on poverty.

Secondly, the lucrative opportunity cost of holding liquid assets by people reduces the hcr and pg. The more the opportunity cost of holding liquid assets the fewer the poverty will be. The people utilized the delayed payment instrument to purchase goods and services and put liquid assets for productive use. Freeman and Huffman (1991) illustrates that people face with transaction cost of money while make purchase of goods and services, so. If interest rate is high and transaction cost is low than the people turn liquid assets to the interest bearing bonds and securities and avail delayed transaction tools for purchase of goods and services, this increases monetary income and reduces poverty. Our results are supported by the Freeman and Kydland (2000) and Simonsen and Cysne (2001).

Thirdly, the Dutch disease is a situation where a specific sector of economy grows more than the others, in this case the wages in that particular sector also increase that reduces the poverty in that particular sector along with inflation. Estrades and Terre (2012) reports that due to the Dutch disease the wages shoots and the incidence and depth of poverty level dwindles. Our results are according to the Valensisi (2008).

Fourthly, the Philips curve clarifies the negative correlation with price levels and hcr, and pg. An increase in the price levels reduces the unemployment rate which implies that the income of households increases and the poverty decrease. Mocan (1995) explains that price hike in the economy reduces the structural unemployment amplifying the household income. Out results are in line with the Cutler and Katz (1991).

Fifthly, trickledown effect demonstrates the positive relationship among hcr and pg. It implies that the consistent growth of a country trickles the benefits of growth to the poor and the incomes of the poor starts increasing that reduces poverty. The phenomenon was also illustrated by Kuznet in his inverted U-hypothesis. Khattak (2014) clarifies that the high rate of GDP growth reduces poverty in Pakistan. Our results are supported by Lahiri (2010) and Namini (2016).
Sixthly, the strong bargaining power or workers union reveals the positive association among hcr and pg. An increase in the price level in the economy with strong bargaining power of workers union negotiate for high wages and reverse the impact on price level on poverty. Albanesi (2006) elucidates that strong bargaining power of the worker set higher monetary wages and reduces poverty.

4.3.2 Long Run Results of Poverty Models (WPI Disaggregated)

The long run results of the WPI components with poverty and income inequality are shown in the Table 8. This table explains reveals hcr is positively associated with the gi and bmi while negatively associated with the fi, rmi, flli and mi. The pg is positively associated with the fi, rmi and mi while negatively associated with the gi, flli and mi. The justifications of both the positive and negative signs of variables are already discussed in the illustration of Table 7.

Table 8: Long run Results of Poverty Models (WPI Disaggregated Analysis, 1982-2015)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models Disaggregated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 3 (hcr)</td>
</tr>
<tr>
<td>Gi</td>
<td>-23.016336</td>
</tr>
<tr>
<td></td>
<td>(0.0866)</td>
</tr>
<tr>
<td>Fi</td>
<td>12.622346</td>
</tr>
<tr>
<td></td>
<td>(0.1767)</td>
</tr>
<tr>
<td>Rmi</td>
<td>-6.308424</td>
</tr>
<tr>
<td></td>
<td>(0.0381)</td>
</tr>
<tr>
<td>Flii</td>
<td>-6.914371</td>
</tr>
<tr>
<td></td>
<td>(0.0368)</td>
</tr>
<tr>
<td>Mi</td>
<td>-7.404816</td>
</tr>
<tr>
<td></td>
<td>(0.0926)</td>
</tr>
<tr>
<td>Bmi</td>
<td>1.446906</td>
</tr>
<tr>
<td></td>
<td>(0.3679)</td>
</tr>
<tr>
<td>C</td>
<td>0.968617</td>
</tr>
<tr>
<td></td>
<td>(0.1611)</td>
</tr>
<tr>
<td>T</td>
<td>0.017168</td>
</tr>
<tr>
<td></td>
<td>(0.1046)</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

4.3.3 Long Run Results of Poverty Models (Aggregate Price Levels)

The long run results of model 5 and 6, the aggregate price levels with poverty are shown in the Table 9.

Table 9: Long run Results of Poverty Models (Aggregate Analysis, 1982-2015)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models Aggregated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 5 (hcr)</td>
</tr>
<tr>
<td>cpii</td>
<td>23.097769</td>
</tr>
<tr>
<td></td>
<td>(0.4347)</td>
</tr>
<tr>
<td>wpii</td>
<td>-10.176636</td>
</tr>
<tr>
<td></td>
<td>(0.0937)</td>
</tr>
<tr>
<td>spii</td>
<td>8.773611</td>
</tr>
<tr>
<td></td>
<td>(0.0488)</td>
</tr>
<tr>
<td>gdpdi</td>
<td>-1.430872</td>
</tr>
<tr>
<td></td>
<td>(0.0087)</td>
</tr>
<tr>
<td>C</td>
<td>0.642490</td>
</tr>
<tr>
<td></td>
<td>(0.2729)</td>
</tr>
</tbody>
</table>
The Table 9 manifests the positive correlation of hcr with the cpii and spii while negative correlation wpii and gdpdi. The pg is positively correlated with the cpii, wpii, spii and gdpdi. The reasons of both positive and negative signs of variables has discussed in the illustration of Table 7.

4.4 Results of the Error Correction models
Having examined the long run relationship among the variables employed in the model, error correction model (ECM) is used to investigate these short run variations. Table 10 shows the short run error correction results of the poverty models 1 and 2 with the CPI components. Table 10 reveals the short run error correction results of the model three and four. Table 11 shows the short run error correction results of the models five and six.

4.4.1 Error Correction Results of Poverty Models (CPI Disaggregate Analysis)
The error correction results of the CPI components with poverty are shown in the Table 10.

Table 10: Error Correction Results of Poverty Models (CPI Disaggregate Analysis)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models (Disaggregate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>DV: (hcr)</td>
<td></td>
</tr>
<tr>
<td>D(hcr(-1))</td>
<td>-0.612946</td>
</tr>
<tr>
<td></td>
<td>(0.3616)</td>
</tr>
<tr>
<td>D(hcr(-2))</td>
<td>-0.600676</td>
</tr>
<tr>
<td></td>
<td>(0.3762)</td>
</tr>
<tr>
<td>D(hcr(-3))</td>
<td>0.413734</td>
</tr>
<tr>
<td></td>
<td>(0.4466)</td>
</tr>
<tr>
<td>D(pg(-1))</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>(----)</td>
</tr>
<tr>
<td>D(pg(-2))</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>(----)</td>
</tr>
<tr>
<td>D(pg(-3))</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>(----)</td>
</tr>
<tr>
<td>D(atfi)</td>
<td>-1.018921</td>
</tr>
<tr>
<td></td>
<td>(0.0831)</td>
</tr>
<tr>
<td>D(hri)</td>
<td>2.766124</td>
</tr>
<tr>
<td></td>
<td>(0.0128)</td>
</tr>
<tr>
<td>D(ei)</td>
<td>0.277932</td>
</tr>
<tr>
<td></td>
<td>(0.4630)</td>
</tr>
<tr>
<td>D(reei)</td>
<td>0.716231</td>
</tr>
<tr>
<td></td>
<td>(0.3712)</td>
</tr>
<tr>
<td>D(clpai)</td>
<td>0.667200</td>
</tr>
<tr>
<td></td>
<td>(0.0066)</td>
</tr>
<tr>
<td>D(mi)</td>
<td>-1.779367</td>
</tr>
<tr>
<td></td>
<td>(0.0067)</td>
</tr>
<tr>
<td>D(gi)</td>
<td>-2.019884</td>
</tr>
<tr>
<td></td>
<td>(0.1928)</td>
</tr>
<tr>
<td>D(fhti)</td>
<td>-1.164678</td>
</tr>
<tr>
<td></td>
<td>(0.0361)</td>
</tr>
<tr>
<td>D(hfei)</td>
<td>2.822662</td>
</tr>
<tr>
<td></td>
<td>(0.1821)</td>
</tr>
<tr>
<td>D(tci)</td>
<td>-0.146124</td>
</tr>
<tr>
<td></td>
<td>(0.8121)</td>
</tr>
<tr>
<td>T</td>
<td>0.003326</td>
</tr>
<tr>
<td></td>
<td>(0.1664)</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-0.6476</td>
</tr>
<tr>
<td></td>
<td>(0.0284)</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations
The dependent variables in model 1 and 2 are the poverty head count ratio and poverty gap respectively. In Table 10 values of Error Correction Coefficients of model 1 and model 2 are -0.6476 and -0.4979 respectively. Negative signs show the short run convergence to the equilibrium. Model 1 shows the long run dispersion from equilibrium due to short run jolt will be corrected in six months while in model 2 the convergence will occur in approximately five months.

4.4.2 Error Correction Results of Poverty Models (WPI Disaggregate Analysis)
The error correction results of the WPI components with poverty are shown in the Table 11.

**Table 11: Error Correction Results of Poverty Models (WPI Disaggregate Analysis, 1982-2015)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models Disaggregated</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 3</td>
<td>Model 4</td>
<td>DV: (her)</td>
<td>DV:(pg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(hri(-1))</td>
<td>0.437467 (0.0024)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(pg(-1))</td>
<td>0.797636 (0.2986)</td>
<td>1.772381 (0.0009)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(gi)</td>
<td>0.3671 (0.0340)</td>
<td>1.637494 (0.0146)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(gi(-1))</td>
<td>-</td>
<td>2.094177 (0.0684)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(gi(-2))</td>
<td>-</td>
<td>3.649062 (0.0141)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fi)</td>
<td>-0.179814 (0.7768)</td>
<td>0.084184 (0.0907)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fi(-1))</td>
<td>1.678969 (0.0109)</td>
<td>-0.976332 (0.1690)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fi(-2))</td>
<td>-</td>
<td>-2.704626 (0.0124)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(rmi)</td>
<td>-0.610436 (0.0076)</td>
<td>-0.604808 (0.0141)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(rmi(-1))</td>
<td>-</td>
<td>-1.487823 (0.0010)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(rmi(-2))</td>
<td>-</td>
<td>-1.049883 (0.0010)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fli)</td>
<td>-0.923688 (0.0146)</td>
<td>-2.036222 (0.0018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fli(-1))</td>
<td>-</td>
<td>0.702686 (0.0233)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(fli(-2))</td>
<td>-</td>
<td>-0.290660 (0.1162)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(mi)</td>
<td>0.188670 (0.4812)</td>
<td>1.861331 (0.0039)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(mi(-1))</td>
<td>1.212361 (0.0000)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(bmi)</td>
<td>0.226793 (0.0374)</td>
<td>-0.868691 (0.0360)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(T)</td>
<td>0.002679 (0.439)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cointEq(-1)</td>
<td>-0.1661 (0.0183)</td>
<td>-0.0670 (0.0638)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

The dependent variable in model 3 is poverty head count ratio, in model 4 the dependent variable is poverty gap. In Table 11 values of Error Correction Coefficients of model 3 and model 4 are -0.1661 and -0.0670 respectively.
Negative sign shows the short run convergence to the equilibrium. Model 3 shows long run dispersion from equilibrium due to short run jolt will be corrected in more than one month. In model 4 the convergence will occur in approximately one month.

4.4.3 Error Correction Results of Poverty Models (Aggregate Analysis)
The error correction results of model 5 and 6 are shown below in the Table 12.

Table 12: Error Correction Results of Poverty Models (Aggregated Analysis, 1982-2015)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poverty Models Aggregated</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV: (hcr)</td>
<td></td>
<td>DV: (pg)</td>
</tr>
<tr>
<td>D(hcr (-1))</td>
<td>1.00626</td>
<td>(0.0360)</td>
<td>---</td>
</tr>
<tr>
<td>D(hcr (-2))</td>
<td>-0.442087</td>
<td>(0.2499)</td>
<td>---</td>
</tr>
<tr>
<td>D(hcr (-3))</td>
<td>1.633760</td>
<td>(0.0229)</td>
<td>---</td>
</tr>
<tr>
<td>D(pg(-1))</td>
<td>---</td>
<td>0.844199</td>
<td>(0.0466)</td>
</tr>
<tr>
<td>D(pg(-2))</td>
<td>---</td>
<td>0.706177</td>
<td>(0.1882)</td>
</tr>
<tr>
<td>D(pg(-3))</td>
<td>---</td>
<td>-0.687127</td>
<td>(0.1717)</td>
</tr>
<tr>
<td>D(cpii)</td>
<td>27.046161</td>
<td>(0.4976)</td>
<td>6.699817</td>
</tr>
<tr>
<td>D(cpii(-1))</td>
<td>-0.164337</td>
<td>(0.1829)</td>
<td>-0.067706</td>
</tr>
<tr>
<td>D(cpii(-2))</td>
<td>0.122214</td>
<td>(0.3396)</td>
<td>-0.169082</td>
</tr>
<tr>
<td>D(cpii(-3))</td>
<td>0.216074</td>
<td>(0.1661)</td>
<td>---</td>
</tr>
<tr>
<td>D(wpii)</td>
<td>-3.860342</td>
<td>(0.2466)</td>
<td>0.692922</td>
</tr>
<tr>
<td>D(wpii(-1))</td>
<td>-0.783861</td>
<td>(0.6012)</td>
<td>-0.093798</td>
</tr>
<tr>
<td>D(wpii(-2))</td>
<td>2.876729</td>
<td>(0.2196)</td>
<td>-1.681468</td>
</tr>
<tr>
<td>D(wpii(-3))</td>
<td>1.39489</td>
<td>(0.3423)</td>
<td>-2.291066</td>
</tr>
<tr>
<td>D(spii)</td>
<td>1.696764</td>
<td>(0.1970)</td>
<td>-1.16890</td>
</tr>
<tr>
<td>D(spii(-1))</td>
<td>0.666070</td>
<td>(0.6696)</td>
<td>0.184967</td>
</tr>
<tr>
<td>D(spii(-2))</td>
<td>-2.701223</td>
<td>(0.2269)</td>
<td>1.766746</td>
</tr>
<tr>
<td>D(spii(-3))</td>
<td>-1.666949</td>
<td>(0.1970)</td>
<td>2.368992</td>
</tr>
<tr>
<td>D(gdpdi)</td>
<td>-0.043842</td>
<td>(0.6879)</td>
<td>0.224396</td>
</tr>
<tr>
<td>D(gdpdi (-1))</td>
<td>0.236607</td>
<td>(0.0693)</td>
<td>0.06360</td>
</tr>
<tr>
<td>D(gdpdi (-2))</td>
<td>0.346118</td>
<td>(0.0766)</td>
<td>-0.116216</td>
</tr>
<tr>
<td>D(gdpdi (-3))</td>
<td>0.802096</td>
<td>(0.1037)</td>
<td>0.077161</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-1.1820</td>
<td>(0.0360)</td>
<td>-0.1426</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations
The dependent variable in model 5 is poverty head count ratio while in model 6, the dependent variable is poverty gap. In Table 12 values of Error Correction Coefficients of model 5 and model 6 are -1.1820 and -0.1426 respectively. Negative sign shows the short run convergence to the equilibrium. In model 5 the convergence to longrun equilibrium will occur two months approximately. In model 6 the convergence will occur in more than one month. It is also observed that in all ECM models the speed of adjustment is different. It might be due to the different dependent variables in different models.

5. Conclusions, Policy Implications and Future Research Agenda

Price level is a crucial factor in our routine lives while the individuals are diverse in terms of their wants, pattern of income and consumption. Hence, the impact of price levels on the individuals is different. The study examined the impact of change in prices of components of the price levels and the change in the aggregate price levels on the poverty in Pakistan. The study collected data of aggregate and disaggregate price levels, and poverty in Pakistan from World Development Indicators (WDI) and the Handbook of Statistics of the State Bank of Pakistan (SBP) for the years 1982-2015. Heterogeneity of the base of data of the price levels and their components was removed by using linear data splicing method and all the data converted to same base. The ARDL method is used to access the correlation among variables.

The results of the study are diverse in some cases, while are according to the theory in other cases, leading to a paradoxical situation. The results reveal that poverty has positive relationship with price level components and the aggregate price levels which increase the incidence and depth of the poverty in Pakistan. The increase in poverty is not merely associated with the deprivation of food only but is also linked to essentials of life such as food, clothing, education, health, freedom of speech, richer cultural life, justice, self-esteem etc. The development economists of our time reveal that the poor are more insecure and defenceless and victim of crimes as compared to the rich while the phenomenon becomes worse for the poorest sections of the society. The reason for positive association is the reduced real income of individuals, weak bargain power and poor system of indexation. The paradoxical results explain a positive association between components of the price levels, aggregate price levels, poverty manifested that increase in the prices of the components of the price levels, and aggregate price level reduced the poverty in Pakistan. These results are due to the negative relationship between inflation and unemployment, trickle down and strong workers bargaining power. However, due to large number of population, living in the rural areas where average income of household is very low, the inflation hurts them adversely.

The Government of Pakistan needs to consider policies for retail and wholesale prices as well. The following are some of the policy recommendations:

- The Government of Pakistan may focus on components of the CPI that are causing poverty such as atfi, ei, fbit etc. The inflation rates may be checked properly and their effect may be compensated by proper policies to reduce the poverty.
- The economic managers of Pakistan may consider components of the CPI that are reducing poverty such as hri and hefi etc. These components may be properly regulated.
- The Government of Pakistan may consider the components of WPI that are increasing the poverty such as fi, bmi etc. hence, inflation rates may be controlled.
- The policy makers may properly check the components of WPI that are decreasing the poverty such as gi, rmi etc. These inflation rates must be properly managed for better gains in the economy.

The present study explores the association of aggregate and disaggregated price levels and poverty in Pakistan. However, there is a need for future research to explore the relationship between consumption poverty and price levels.

References


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ARTICLE DETAILS

ABSTRACT
This study has discovered the impact of crisis management practices and strategic responses on the price strategy in the textile industry of Pakistan. In this research, independent variable is crisis management practices (efficiency improvement and competitiveness improvement), mediating variable is strategic responses (pro-activeness and reactiveness) and where the dependent variable is price strategy. This study investigated the textile industry firms of Pakistan by means of correlation and regression analysis via empirical findings. Data has been gathered from the questionnaire method from the companies of textile industry. It is hypothesized that crisis management practices, strategic responses have significant impact on the price strategy in which strategic responses have a mediating role and these noteworthy impacts have been denied by the results of the study.

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1. Introduction
The global textile industry more than past numerous years has become one of the most significant industry by contributing economic growth in the global economy. Textile manufacturing is a labor demanding industry involving cheap labor of developing and underdeveloped countries via use of different strategies and cultivate comparative advantage in labor costs. The global recession has not only affected the textile industry globally but also countries have faced economic downturns specifically. The global textile industry faces volatile times regardless of the stage of supply chain to which companies belong. Globally, textile industry has always the threat of unforeseen crisis that affect them deleteriously. Nominal sales of textiles are recorded at -4% in 2015 owing to multiple currency depreciations worldwide and other economic factors (Global Textile Report, 2016).

Textile industry is the mainstay of Pakistan’s economy as it contributes 57% to the country’s exports. This sector needs to upgrade its strategies and policies in order to meet the volatile economic downturns and to survive on global level (Ministry of Textile Industry, Pakistan). Textile industry in Pakistan has been seen uncompetitive in international textile market due to the high cost of doing this business. Pakistan faces a high risk in businesses due to unstable security situation, double digit inflation, and increased cost of financing distant from instant rise in energy costs that have led to different types of
crisis. Consumer oriented businesses e.g. textiles have a sizeable market potential (Business Monitor International, BMI) and Pakistan is a lucrative economy for investors in this regard.

The word “Crisis” is defined by two characteristics in Chinese terminology that are seen as “danger” and the “opportunity” together. All types of adverse events are incorporated in this elaborative concept. In the context, the phrase crisis relates to all circumstances that are redundant, unforeseen, unique, and almost uncontrollable, basis extensive scepticism and uncertainty (Boin, Kofman&Overdijk, 2004). Efficiency improvement leads to achievement of economies of scale via technical efficiency and cost efficiency (Berger, Leusner, and Mingo, 1997). Efficiency is the measure of the ability of firm to assign resources professionally among production units and on the basis of experiential prices to provide the right assortment of input and output (Deville, Ferrier &Leleu, 2013). This indicator is the first determinant for the crisis management practices. Competitiveness is related to economic success which leads to market growth, high employment and better living standards for the employees working in an organization and also it is related to the efficient and effective utilization of a company’s limited resources (Csath, 2007). However, this research will address the competitiveness improvement in terms of efficient and effective utilization of a company’s limited resources as the second indicator for determining crisis management practices.

Businesses produce special types of reaction to handle with crisis. The most victorious strategies to conquer crisis is to make use of practical response and reactive response (Alonso-Almeida & Bremser, 2013). Proactive response is a reaction to problem in advance that becomes crisis at later stages which involves anticipation of problems and changes the way things are done. Proactive strategy is a tactic to provide solution to business competition and workplace changes on the basis of anticipation. Reactive response is shown in response to a problem or situation that becomes crisis for firms. Reactive strategy provides a slow response to changes in firms environment i.e. problems that are addressed after they take the form of crisis.

Price strategy refers to the strategy for pricing the products and services in the market on the basis of estimation of the cost of resources and other factors. Price and worth are flattering progressively more fundamental to the selections that consumer make about the place to shop and what to buy (Textile and Clothing, 2015). Pricing strategy helps the companies to achieve profit maximization and also aids to achieve sustainability by use of different pricing strategies in case of adverse circumstances (Nagle and Holden, 1995).

Numerous studies have scrutinized the possessions of catastrophe in different industries especially in hospitality industry (Aziz, 1995; Leslie, 1996) and groundings for formulating strategies for future and past crisis situations or proceedings (Lynch, 2004). As Pakistan’s textile industry is lacking in research and development so the rationale of this research is to examine the relationship between Crisis Management Practices and strategic responses in the course of analyzing the price strategy in tough times for the textile industry in Pakistan. This research work will describe the impact of crisis management practices in terms of two dimensions i.e. efficiency improvement and competitiveness improvement on the strategic responses by use of two core responses i.e. reactive response and proactive response via use of one strategy i.e. price strategy. Little research has been done in Pakistan on the crisis management practices and strategic replies during price strategy especially considering the textile industry of Pakistan. This research will provide insight in the practical strategic responses through which the textile industry has reacted during hard times for the crisis management.

2. Literature Review
Crisis has been defined in Chinese context as an amalgam of danger and opportunity. It has generally been used for incorporating all the unnecessary events that occur. So, in this regard, all types of situations which are not needed, not expected, unprecedented and are difficult to manage or even are unmanageable, creating chaos disbelief and uncertainty (Boin, Kofman&Overdijk, 2004). Crisis has also been seen as a
good or bad turning point with inclusion of moments related to life and death, a decline in the way of expansions occurred which are considered as hazardous (Dincer, 2009). Crisis has also been considered as a situation which cannot be predicted beforehand by any organization and are considered unexpected (Koçel, 1998). Routine crisis situations have a unique feature of response in case of emergency and action which is quick and these are considered vital. Crisis situation detection is seen as detection, prevention or providing responses to the changes respectively as these changes arise in the insufficient occasions. Three features of crisis has been identified by literature i.e. crisis should be an abrupt sudden surprise that is comprised of event that is unexpected. Second feature is that crisis eliminate the appearance of any business, person or a destination linked to it. The last promising feature is that availability of time should be limited for remedy that creates pressure (Kalpaklıoğlu, 2010).

Crisis word is worn in all the capacities of political affairs, culture and the financial system of the country (Glaeser, 2005), which provide huge special consequence on the mainstream of any inhabitants. Economic costs that are high which encompasses precautions that are classical and has created unique, inclusive and multidimensional problems related to snowball effects, which ultimately have impact on key resources and limits the area that is operational for manager to tackle (Boin & Lagadec, 2000). The art of taking decisions by observing evidences of an event that is referred as crisis to alleviate or somehow eliminating effects even when the event is non-predicting are referred as crisis management. This generally means that decisions are made for organizations regarding their future in the scenarios of stress and when there is deprivation of key information (Seçilmiş& Sari, 2010). Before the occurrence of crisis, there can be felt some clues. Management is considered successful if the symptoms are identified and remedied before the occurrence of crisis. Thus, to remedify the crisis situation, crisis management technique should be applied for prevention and mitigation of the crisis effects on its start. A high level of uncertainty can be observed which is required by businesses to ponder on the decisions related to survival. Thus, focusing on choosing and implementing an appropriate strategy by businesses is considered as an integral part of thinking related to strategic management (Karakaya, 2004).

Three parts can be considered for crisis management which includes the appraisal of multiple risks faced by a particular business. Social, technical, political and monetary divisions are referred as key outside reasons. They are considered normal as to their occurrence within parameters which are typical and expected. Terrorism, conflict at international level, foreign and domestic political volatility, and instability associated with economic and trade affairs are high-lightened by some authors as crucial sources of high order or corporate crisis that is considered abnormal (Cushnahan, 2004). The management and synchronization of responses of the institution to an event that intimidates harm or has already harmed the people, structures, capability to operate, proceed and standing is regarded as crisis management. Planning and incident responses arise automatically and also dealing with situation via dynamism in contingencies which also comes in unpredictable way as well. Prediction of any crisis is on verge of top management. Direct and indirect indications to the organization are sent by crisis before they occur. Occasionally due to ignorance on the part of management as lack of analysis of the signals get them into crisis. This study undertakes management performance in times of catastrophe as equipped efficiency and competitiveness development as Alonso-Almeida & Bremer (2013).

To cope with crisis, businesses generate different responses as shown by several studies. The most effective and victorious strategies to conquer crisis is by practical measures that can include increased spending on marketing and developing innovative product (Alonso-Almeida & Bremer, 2013). Some others consent for the tourism concern that it should implement financial prudence strategies by continuing accessible staff stage and as a replacement for relying on grow in time of work or competence to increase litheness (Okumus & Karamustafa, 2005). Reaction has been taken as a first section that groups the procedures taken by the restaurant, due to a beg off in income, Customer value added has been taken to analyze management’s obligation to improve the superiority and services as part of a strategy to antedate intimidation and to be prepared to contradict them when they happen. Flexibility is taken as the third section that closely relates to the management of a restaurant’s operations. Litheness comprises
measures to decrease fixed costs and to gain flexibility. Proactiveness is taken as the fourth section that comprises activities that make stronger a firm’s competitive position. To the extent it is known that loyal customers have more buying activity, loyal customers tend to spend greater share of their income at the supplier, loyal customers are seen to be less price-sensitive than other customers and loyal customers spread positive word-of-mouth and in that way amplify the customers for products and the services (Williams & Naumann, 2011). In addition, it has been seen that extraordinary levels of customer loyalty and satisfaction revel in lower price compassion group (Alonso-Almeida & Bremser, 2013).

This study ensues management practices in eras of a crisis as operational efficiency and competitiveness enhancement acquire as features pretentious by the impact of a crisis (Alonso-Almeida & Bremser, 2013). Two different measures have been employed as strategic reaction (Alonso-Almeida & Bremser, 2013). Decline in income, pro activeness that comprises actions that toughen a firm’s viable point are seen as key components. As the price of the product is key to buyers as it influence their choices to buy and firms should focus on their price strategy or attaining profits during hard times so in light of this argument, the hypothesis discussed in next section are formed and conceptual framework has been shown.

3. Research model and Hypothesis

![Research Model Diagram](image)

Figure 1: Research Model

Hypothesis 1: Crisis management practices have impact on price strategy.
Hypothesis 2: Crisis management practices have impact on strategic responses.
Hypothesis 3: Strategic responses have impact on price strategy.
Hypothesis 4: Strategic responses mediate the relationship between crisis management practices and the price strategy.

4. Methodology

4.1 Data and Measures
The objective of this study is to understand the impact of crisis management practices with the mediating role of strategic responses through the price strategy in textile industry context. Questionnaire has been taken from King & Spalding’s global Crisis Management Practice, Schneider, & Meyer (1991), Alonso-Almeida & Bremser, (2013) and Williams & Naumann, (2011). The study focusses on the textile industry of Pakistan so a questionnaire has been distributed among several companies of this industry. So the total sample size of this study was 200. Out of which, 175 questionnaires were returned for analysis and further 5 questionnaires were discarded due to missing responses. Hence the response rate was 85% for this study. The managerial staff and administrators were the informants as their job related responsibilities were comprised of strategic management, marketing, sales and announcement tasks of the organization. The questionnaire has the measures of crisis management practices, strategic responses and the price strategy which have been measured from 7 points Likert scale.

4.2 Analysis and Results
The following table illustrates the descriptive statistics of demographic variables. The table shows that the respondents’ age lies between 21 years to 59 years representing the mean age of 30 years approximately and the standard deviation. The statistics for gender and field of education are depicted in the following table.

Table 1: Descriptive Statistics of Demographic Variables

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>170</td>
<td>21</td>
<td>59</td>
<td>29.71</td>
<td>6.41</td>
</tr>
<tr>
<td>Gender</td>
<td>170</td>
<td>0.00</td>
<td>1.00</td>
<td>0.29</td>
<td>0.45</td>
</tr>
<tr>
<td>Field of Education</td>
<td>170</td>
<td>1.00</td>
<td>3.00</td>
<td>1.55</td>
<td>0.596</td>
</tr>
</tbody>
</table>

The following table illustrates the descriptive statistics and correlation of the independent variable i.e. crisis management practices, mediator variable i.e. strategic responses and the dependent variable i.e. price strategy. Only the correlation between strategic responses and price strategy has been found significant at 0.01 level. Other values of correlation have been shown in the following table.

Table 2: Descriptive Statistics and Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>CMP</th>
<th>SR</th>
<th>PS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis Management Practices (CMP)</td>
<td>170</td>
<td>4.49</td>
<td>0.89</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Responses (SR)</td>
<td>170</td>
<td>3.99</td>
<td>0.66</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Price Strategy (PS)</td>
<td>170</td>
<td>4.13</td>
<td>1.32</td>
<td>0.03</td>
<td>0.28*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)

4.3 Mediated Regression Analysis
The following table illustrates the mediated regression analysis values. Only the strategic responses has been seen to have significant effect on price strategy at P value=0.000 (significance level 0.01). The other paths are found insignificant.

Table 3: Regression for Mediation Analysis

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Strategic Responses</th>
<th>Price Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>R2</td>
</tr>
<tr>
<td>Crisis Management Practices</td>
<td>0.039</td>
<td>0.002</td>
</tr>
<tr>
<td>Crisis Management Practices</td>
<td>0.076</td>
<td>0.006</td>
</tr>
<tr>
<td>Strategic Responses</td>
<td>0.287</td>
<td>0.083</td>
</tr>
<tr>
<td>Mediation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis Management Practices</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Discussion
This objective of this study is to dig out the relationship among crisis management practices and price strategy through the mediating role of strategic responses in a textile industry context. Management practices are seen on the dimensions of efficiency improvement and competitiveness improvement which are not related to the strategic responses which are considered from the perspectives of pro-activeness and reactivity. However, strategic responses are seen to have significant association with the price strategy in the textile sector of Pakistan. But there is found no mediation in the results when the study has been conducted in Pakistan. Except for the hypothesis 3, strategic responses have impact on price strategy, all the aforementioned hypothesis are rejected. This is due to the fact that the crisis management practices undertaken by the study efficiency improvement and the competitiveness improvement has not been given due importance in Pakistan. However, if other dimensions of these variables are taken into account then these would have significant impact on the strategic responses and responses ultimately on the price strategy. However, the study has found that strategic responses have impact on price strategy which shows that by undertaking pro-active and reactive strategic responses, the price strategy can be influenced at large.

6. Conclusion
The result of this study suggests that there is no mediation found in the proposed conceptual model. However, only the relationship between the strategic responses and price strategy has been found significant. The results of this research have contribution to the vast knowledge of crisis management practices in literature associated to strategic management. The current study has definite limitations of simply studying certain variables with price strategy. This research study can further undertaken with incorporation of managers personality role and other external and internal factors for more extensive results. Other implications are for the policy makers to opt out multiple standard and flexible operating procedures for the crisis management.

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Regional Wealth Disparity and Its Impact on Urban and Rural Child Schooling in Developing Economies: A Case of Punjab (Pakistan)

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The purpose of this study is to check how regional wealth disparity affects urban and rural schooling in Punjab. It is an effort to explore the influence of wealth disparity between the districts of Punjab on school enrolment of children 3-4 and 5-9 years age group using micro data-sets of cluster survey in 2007-08, 2011 and 2014 in Pakistan. This study uses the probit model and the principal component analysis to check district wealth disparity in Punjab, Pakistan. The principal variable i.e., socioeconomic disparity influences the school attendance severely in Punjab, however it affects more the rural areas. The sliding down the disparity desires equivalent distribution of funds from government of Punjab to the districts. The policy objective is to highlight the development of the districts of Punjab. This study creates the district wealth disparity index with various formula and principal component analysis to check how regional wealth disparities affect schooling.

1. Introduction

The provincial governments is concerned with education. The provincial governments are flowing their responsibility to the private sector and are not satisfactorily spending on education and particularly on school education. The funds distributed to the districts are having high disparity within the province which creates the high ratio of out of school children. The mechanism on school enrolment has devoted on the effect of rural urban locality on child schooling (Siddiqui and Uzma 2007; Sawada and Lokshin, 2009; Kruger et. al. 2010 for Nepal). Some of them have touched the children activities like child labor, combining child labor and schooling, etc. (Khan 2003).

Similarly studies have also estimated the impact of geographic regions on child welfare. (Tharmmapornphilas, 2013 for Thailand for child schooling). Huisman and Smits (2009) showed the
higher likelihood of child schooling in developed regions of developing countries (see also Longwe and Smits 2012 for sub-Saharan Africa). These studies have discovered that impact of region (urban/rural or geographical location) on education of children is due to socioeconomic and cultural diversity in the regions (Tharmmapornphilas 2013).9

The Punjab districts have too much difference in the structure of rural and urban areas. Schools are in low number and quality wise. The insufficiency is more extensive in rural areas. In the same way, the adult proficiency estimate is quite worse in rural areas. The discrepancy between the districts may distress the children’s school attendance inversely in both areas. Therefore both areas are independently examined and compared separately.

Regional disparities are identified in distinguishing conditions of life in Pakistan, also in inadequate fiscal and growth prospective. The Punjab Province has 35 districts (Jamal, 2012).

A lot of issues create hurdle in delayed and low child’s schooling. Parents make decisions considering so many things and their issues regarding education and work lead to low schooling of their children (Azid and Khan, 2010). The government of Pakistan has tried to achieve the targets but remained unsuccessful due to low funding and mismanagement.

From the studies debated above, the point of allusion appeared that if regional socioeconomic disparity is the reason of low school enrolment then disparity within the provinces among the districts may affect the child schooling. It provides prompting to the researchers for probing the impact of socioeconomic regional disparity in the province of Punjab (among the districts) on child schooling. If it is demonstrated from the current analysis then strong policy proposal would be to reduce the regional socioeconomic disparity in Punjab and to do the measures at provincial level. Such type of conclusion will also negate the theory of unbalanced growth, that is to elevate the big cities, metropolitans and business/industrial cities firstly and then have the spillover effects of economic expansion of these cities.10 In the current case, if the evidence is provided the proposed strategy would be to improve the socioeconomic status of all districts equally to have the universal primary education and pre-primary education to have the benefits of returns to education.

The specific purposes of the study are:
- To check how district wealth disparity index affects schooling of children at pre-primary and primary education levels in Punjab.
- To give policy implications for the enhancement school enrolment.

2. Literature Review

Viewing at related literature is to describe the enquiry with the prevailing facts that shows issue under study. So far many studies regarding disparity issue are found except in Punjab. So we explain the literature.

The regional disparity may be rural urban, among the geographic, administrative units of the countries, provinces and even within cities.

Khan (2003) examined child labor by using primary data. The probit model result show the effect of child age on probability of schooling. By using primary data, Filmer (2005) examined the differences in schooling at country level.

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9 Regional socioeconomic disparity is also assumed undesirable as it creates political instability, crimes, corruption and social imbalance. It may create hurdle in economic development of countries.

10 Currently the government of Punjab is spending a lot in big cities particularly Lahore while ignoring the other districts. For example, more than 50 percent of the development budget of Punjab is spent on Lahore (daily The News, August 4, 2016).
Kruger (2007) assessed the influence of child labor on schooling of children in Brazil. Huisman and Smits (2009) focused on households variables for primary school enrollment in less developed economies. The logistic regression results showed that parents’ education and nature of work and wealth enhanced children enrollment.

Tsujita (2013) argued that elements which terminate the children from teaching in slum by consuming data in India. The outcomes showed that children from wealthier family were more expected to get education.

Lincove (2015) associated plans to evaluate difficulties to schooling over discovered and specified predilections by using survey data in Nigeria. The probit model was used in the study.

The literature evidenced that rural urban regional disparity, developed and under-developed areas of same city and socioeconomic disparity affects child schooling.


It is evident from the review of literature that there is lack of the estimation of disparity in Punjab districts and its role in school enrolment. There is a need to capture impact of socio economic regional wealth disparities on child schooling. Hence, this study is inevitable and worth contributing to the existing literature of economics. The policy formation constructed on the outcomes of the study may be supportive for school enrolment to attain the national targets and SDGs.

3. Data and Methodology
To check the disparity at district level on 3-4 and 5-9 years of child schooling in Punjab, the Probit Model has been used on micro-data of Multiple indicator cluster survey MICS) 2007-8, 2011 and 2014 on three models in both areas. The observations in the relevant models were for 23263 pre-primary urban and 60092 for primary urban children and 45814 for pre-primary rural and 117973 for primary rural children.

We have used survey data and it coverages the whole Punjab, Pakistan. District wealth disparity index exemplifies the local inconsistency through regions and it has a vigorous effect on schooling. District socioeconomic disparity index has been constructed from the information given in MICS.

District disparity index symbolizes the wealth disparity across districts. Firstly the wealth index of the household is constructed through PCA by taking the ownership of consumer goods and dwelling characteristics (see for details Filmer and Pritchett 2001). This index has been formed by compelling the average of the wealth index of the households in the district

3.2 Model Specification
The study has specified the following Probit Models:

\[ Y_{uppit} = \beta_1 WDI_{it} + a_1 HIC_{it} + \gamma_j + \epsilon_{it} \ldots \ldots \ldots \ldots \ldots (1) \]

The average household income in the district may also be an alternative to household wealth index but latter is preferred as discussed by Rutstein and Johnson (2004).
\begin{align*}
\text{Yupit} &= \zeta_1 \text{WDlit} + \varphi_1 \text{HICit} + \gamma_j + \epsilon_{it} \quad \ldots \quad (2) \\
\text{Yrppit} &= \lambda_1 \text{WDlit} + \sigma_1 \text{HICit} + \gamma_j + \epsilon_{it} \quad \ldots \quad (3) \\
\text{Yrpit} &= \lambda_1 \text{WDlit} + \sigma_1 \text{HICit} + \gamma_j + \epsilon_{it} \quad \ldots \quad (4)
\end{align*}

The \text{Yuppit}, \text{Ybpit}, \text{Yrppit} and \text{Yrppit} show the probability of child at schooling. While, \text{WDlit} and \text{HIC} indicate wealth disparity index and household related variables.

The model 1, 2,3 and 4 represents the all urban and rural children school enrolment separately. \(\epsilon_{it}\) is an error term. The variable descriptions are shown in appendix the table 2.

5. Results and Discussion
The population of the study is comprised of urban and rural children (3-4 years and 5-9) in 2007, 2011 and 2014. Table 3 in appendix displays the expressive figures.

Table 3 carries the basic statistics of dependent and explanatory variables of the models. It gives mean value, standard deviation and smallest and extreme of the variables. The figures show that on average the school enrolment for the urban children 3-4 years remained 32 percent and 5-9 remained 86 percent. However, in the same age group rural school enrolment remained 19 percent and 72 percent during the same period. The results of Probit model are displayed in table 4.

**Table 4. Probit Model Results**

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Pre-primary Urban (3-4)</th>
<th>Pre-primary Rural (3-4)</th>
<th>Primary Urban (5-9)</th>
<th>Primary Rural (5-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District wealth disparity index</td>
<td>-0.0364*** (-3.19)</td>
<td>-0.0861*** (-8.05)</td>
<td>-0.0129*** (-4.78)</td>
<td>-0.0603*** (-9.95)</td>
</tr>
<tr>
<td>Household size</td>
<td>-0.0052*** (-5.59)</td>
<td>-0.0016*** (-3.11)</td>
<td>-0.0010*** (-4.81)</td>
<td>-0.0009*** (-3.48)</td>
</tr>
<tr>
<td>Chronic disease</td>
<td>-0.0339 (-1.59)</td>
<td>-0.0065 (-0.67)</td>
<td>-0.0055 (-1.22)</td>
<td>-0.0071 (-1.36)</td>
</tr>
<tr>
<td>Safety nets</td>
<td>-0.0395*** (-2.83)</td>
<td>-0.0240** (-2.3)</td>
<td>-0.0042 (-1.88)</td>
<td>0.0003 (0.09)</td>
</tr>
<tr>
<td>Remittances</td>
<td>0.0466*** (3.54)</td>
<td>0.0300*** (4.4)</td>
<td>0.0077*** (4.29)</td>
<td>0.0149*** (6.95)</td>
</tr>
<tr>
<td><strong>Head of household characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education (base category)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary education (yes=1, no=0)</td>
<td>0.0360*** (4.14)</td>
<td>0.0391*** (5.68)</td>
<td>0.0116*** (13.66)</td>
<td>0.0223*** (14.46)</td>
</tr>
<tr>
<td>Middle education (yes=1, no=0)</td>
<td>0.0588*** (5.29)</td>
<td>0.0616*** (6.23)</td>
<td>0.0165*** (13.2)</td>
<td>0.0290*** (20.17)</td>
</tr>
<tr>
<td>Secondary education (yes=1, no=0)</td>
<td>0.0742*** (8.03)</td>
<td>0.0792*** (13.27)</td>
<td>0.0217*** (14.16)</td>
<td>0.0352*** (23.54)</td>
</tr>
<tr>
<td>Higher education (yes=1, no=0)</td>
<td>0.0904*** (6.23)</td>
<td>0.0783*** (5.6)</td>
<td>0.0224*** (15.34)</td>
<td>0.0330*** (15)</td>
</tr>
<tr>
<td></td>
<td>Coefficient 1</td>
<td>Coefficient 2</td>
<td>Coefficient 3</td>
<td>Coefficient 4</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Head’s age</td>
<td>0.0014***</td>
<td>0.0009***</td>
<td>0.0002***</td>
<td>0.0004***</td>
</tr>
<tr>
<td></td>
<td>(3.74)</td>
<td>(6.43)</td>
<td>(5.02)</td>
<td>(7.1)</td>
</tr>
<tr>
<td>Sex, male (yes=1, no=0)</td>
<td>-0.0120</td>
<td>-0.0347***</td>
<td>-0.0121***</td>
<td>-0.0186***</td>
</tr>
<tr>
<td></td>
<td>(-0.95)</td>
<td>(-6.01)</td>
<td>(-5.69)</td>
<td>(-9.21)</td>
</tr>
<tr>
<td>Self-employed head (yes=1, no=0)</td>
<td>0.0161</td>
<td>0.0119</td>
<td>0.0076***</td>
<td>0.0111***</td>
</tr>
<tr>
<td></td>
<td>(1.03)</td>
<td>(1.14)</td>
<td>(2.16)</td>
<td>(3.56)</td>
</tr>
<tr>
<td>Government employee (yes=1, no=0)</td>
<td>0.0344**</td>
<td>0.0414***</td>
<td>0.0059</td>
<td>0.0179***</td>
</tr>
<tr>
<td></td>
<td>(2.32)</td>
<td>(4.8)</td>
<td>(1.63)</td>
<td></td>
</tr>
<tr>
<td>Private employee (yes=1, no=0)</td>
<td>-0.0021</td>
<td>-0.0073</td>
<td>-0.0005</td>
<td>0.0021</td>
</tr>
<tr>
<td></td>
<td>(-0.14)</td>
<td>(-0.91)</td>
<td>(-0.13)</td>
<td>(0.66)</td>
</tr>
<tr>
<td>Agricultural worker (yes=1, no=0)</td>
<td>0.0460*</td>
<td>-0.0063</td>
<td>0.0051</td>
<td>0.0003</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td>(-0.83)</td>
<td>(1.15)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Laborer (yes=1, no=0)</td>
<td>-0.0391***</td>
<td>-0.0296***</td>
<td>-0.0125*</td>
<td>-0.0183***</td>
</tr>
<tr>
<td></td>
<td>(-3)</td>
<td>(-3.84)</td>
<td>(-2.5)</td>
<td>(-5.32)</td>
</tr>
<tr>
<td>Mother characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education (base category)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary education (yes=1, no=0)</td>
<td>0.1132***</td>
<td>0.0938***</td>
<td>0.0220***</td>
<td>0.0357***</td>
</tr>
<tr>
<td></td>
<td>(10.96)</td>
<td>(12)</td>
<td>(26.26)</td>
<td>(21.53)</td>
</tr>
<tr>
<td>Middle education (yes=1, no=0)</td>
<td>0.1818***</td>
<td>0.1365***</td>
<td>0.0227***</td>
<td>0.0337***</td>
</tr>
<tr>
<td></td>
<td>(12.46)</td>
<td>(12.81)</td>
<td>(19.55)</td>
<td>(12.79)</td>
</tr>
<tr>
<td>Secondary education (yes=1, no=0)</td>
<td>0.2071***</td>
<td>0.1573***</td>
<td>0.0270***</td>
<td>0.0362***</td>
</tr>
<tr>
<td></td>
<td>(14.62)</td>
<td>(15.62)</td>
<td>(19.97)</td>
<td>(11.27)</td>
</tr>
<tr>
<td>Higher education (yes=1, no=0)</td>
<td>0.2619***</td>
<td>0.1755***</td>
<td>0.0274***</td>
<td>0.0337***</td>
</tr>
<tr>
<td></td>
<td>(18.6)</td>
<td>(11.73)</td>
<td>(28.07)</td>
<td>(12.91)</td>
</tr>
<tr>
<td>Mother employment * boys (yes=1, no=0)</td>
<td>0.0333***</td>
<td>-0.0051</td>
<td>-0.0047***</td>
<td>-0.0125***</td>
</tr>
<tr>
<td></td>
<td>(2.57)</td>
<td>(-0.74)</td>
<td>(-1.93)</td>
<td>(-4.74)</td>
</tr>
<tr>
<td>Mother employment * girls (yes=1, no=0)</td>
<td>0.0146**</td>
<td>-0.0009</td>
<td>-0.0031</td>
<td>-0.0081**</td>
</tr>
<tr>
<td></td>
<td>(2.17)</td>
<td>(-0.12)</td>
<td>(-1.36)</td>
<td>(-2.28)</td>
</tr>
<tr>
<td>Child characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child age</td>
<td></td>
<td>0.0635***</td>
<td>0.0860***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(15.19)</td>
<td>(17.46)</td>
<td></td>
</tr>
<tr>
<td>Child age square</td>
<td>0.0519***</td>
<td>0.0309***</td>
<td>-0.0039***</td>
<td>-0.0055***</td>
</tr>
<tr>
<td></td>
<td>(47.74)</td>
<td>(30.25)</td>
<td>(-13.67)</td>
<td>(-16.88)</td>
</tr>
<tr>
<td>Child gender, male (yes=1, no=0)</td>
<td>0.0066</td>
<td>0.0057</td>
<td>0.0031*</td>
<td>0.0189***</td>
</tr>
<tr>
<td></td>
<td>(1.02)</td>
<td>(1.32)</td>
<td>(2.21)</td>
<td>(6.8)</td>
</tr>
<tr>
<td>Siblings aged 1-4 years (yes=1, no=0)</td>
<td>0.0306***</td>
<td>0.0089</td>
<td>-0.0027***</td>
<td>-0.0038**</td>
</tr>
<tr>
<td></td>
<td>(3.8)</td>
<td>(1.42)</td>
<td>(-2.18)</td>
<td>(-2.68)</td>
</tr>
<tr>
<td>Siblings aged 5-14 years (yes=1, no=0)</td>
<td>-0.0422***</td>
<td>-0.0385***</td>
<td>-0.0032*</td>
<td>-0.0079***</td>
</tr>
<tr>
<td></td>
<td>(-5.46)</td>
<td>(-9.51)</td>
<td>(-2.01)</td>
<td>(-4.56)</td>
</tr>
<tr>
<td>Vitamin A (yes=1, no=0)</td>
<td>0.0427***</td>
<td>0.0320***</td>
<td>0.0049***</td>
<td>0.0082***</td>
</tr>
<tr>
<td></td>
<td>(4.48)</td>
<td>(6.27)</td>
<td>(4.24)</td>
<td>(4.16)</td>
</tr>
<tr>
<td>Government school (yes=1, no=0)</td>
<td>0.0344***</td>
<td>0.9097***</td>
<td>0.1298***</td>
<td>0.4253***</td>
</tr>
<tr>
<td></td>
<td>(2.32)</td>
<td>(18.81)</td>
<td>(12.09)</td>
<td>(19.92)</td>
</tr>
<tr>
<td>Iodized (yes=1, no=0)</td>
<td>0.0174**</td>
<td>0.0082**</td>
<td>0.0031**</td>
<td>0.0047**</td>
</tr>
<tr>
<td></td>
<td>(2.66)</td>
<td>(2.4)</td>
<td>(2.42)</td>
<td>(2.47)</td>
</tr>
<tr>
<td>Year2007 (yes=1, no=0)</td>
<td>-0.1853***</td>
<td>-0.1488***</td>
<td>-0.0123***</td>
<td>-0.0507***</td>
</tr>
<tr>
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<td>(-5.57)</td>
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<td>0.0004</td>
</tr>
<tr>
<td></td>
<td>(-3.3)</td>
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<td>(-0.7)</td>
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<td>0.0330***</td>
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Here, we show the results regarding schooling of children. Moreover, we have made a comparison of children in rural and urban areas.

The government should give commitment to the strategies for execution type of disparity. The distinction among the districts on the same lines may impact the welfare signals of the households of the disturbed districts. One of them may be the child schooling. The Principal variable of the analysis we have used in our study District wealth disparity index appears as a main factor of child schooling. In all models, the impact of disparity index is negative but it has robust effect on schooling of girls as parallel to boys. Huisman and Smits (2009) reinforce and verifies that school attendance is greater in districts and nations requiring greater ranks of improvement living in municipal areas.

The results directs that the child schooling is greater in urban than rural areas. Due to well arrangement and extra number of educational organizations child school attendance is higher in urban areas.

Result show that majority of the households has nuclear family in urban areas. But, a trend of joint family system is observed in rural areas and people earn through agriculture and agro-business. The female of poor families also involve to work and children are forced to work as family helpers. So the results are different for both areas.

It is found that household size decreases schooling. But household size affects child schooling. The result show diverse dynamics of household size in urban and rural areas. Our findings are consistent with Iram et al. (2008). The result also show a positive link of schooling and remittances. The result is consistent with Khan and Khan (2016).

The educated household head has sent children to school in rural area. Awareness and ability of decision-making increases with the increase of head age. It is strange to note that the minimum head age is 10 years and maximum age is 99 years in the sample. However econometric estimates show that increase in age enhances the probability of child schooling. Head age positively affects the child schooling in both areas in all models. Moreover, children of male heads are less willing to go to schools. It is supported by Khan (2003).

The variable government employees has increased the schooling of children in rural area. The result clearly conclude the importance and effectiveness of government employment employees in rural areas. The private head employee positively affects the attendance (pre-primary age group) in urban areas. The result also show a negative link of schooling and employment. The findings also show that children of educated mothers prefer to go to schools in both the areas of Punjab. The conclusion is that mother’s employment tends to lessen the child schooling. The study results are similar with Francessa et.al (2013).

Similarly employment of mother differently distresses the school involvement of children. The current model carries the interaction of women employment and boys as well as the interaction of women employment and girls. The estimates have shown that these interaction terms has decreased the school enrolment of all children. It explain that working women in informal sector engage their children in work with them in Pakistan (Siddiqui and Uzma, 2007). An important policy proposal emerges from the

| R-squared | 0.22 | 0.36 | 0.30 | 0.49 |
| Number of observations | 23263 | 45814 | 60092 | 117973 |

Note: Figures in parenthesis are t-values. ***, **and * indicate statistical significance at the 1, 5 and 10 percent levels, respectively.
discussion is that the minimum wages in informal sector employment should be increased and implemented.

The study has also found that male school attendance has increased than female because parents wish to educate boys than girls. Because females face some restraints to be literate. The probability of schooling has declined with the presence of siblings because child labor is an immense obstacle in child schooling. Children are involved in labor work and also involved in household work with their parents. Our outcomes are constant with the results of Kruger (2007).

Iodized household affects the schooling of school-age children in both the areas. The public sector school is important for school attendance of children. Additionally, schools are away from the households in rural areas.

Findings show that the households getting the safety nets tend to decrease the attendance. The year 2007-08 affects negatively the schooling of preprimary school, primary school whereas year 2011 tends to lessen the attendance of pre-primary school.

6. Conclusion and Suggestions
We have analyzed the effect of wealth disparity between the districts of Punjab on schooling. It is determined that disparity index has negative influence on the enrolment of all children. It is concluded that the effect of socio-economic disparity is stronger for rural areas. It has strong policy implication. Allocation of the provincial funds to the districts un-proportionally that is not only creating socioeconomic disparity among the districts but affecting the human capital in the form of lower school enrolment. It is proposed to allocate the funds to the districts according to Provincial Finance Commission award (still to be materialized) on the lines of National Finance Commission.

The result supports the theory of balanced growth and negates the theory of unbalanced growth. The balanced growth of all districts in Punjab would result into good quality labor force in the coming years. In the control variables, it is clear that public sector schools tends to increase the primary school enrolment for all children. So it may further be proposed that public sector spending on education should be increased in comparatively lesser developed districts.

All the control variables have similar influences on schooling but head’s education affected the attendance in rural area. Socio-economic disparity adversely influences the schooling in Punjab, but the stronger results are observed for rural analysis. The results of influence of household size are differ in both the areas. The chronic disease in the household differently affects the attendance in both areas. There is a serious need to enhance the attendance in rural areas in order to narrow down the gap between rural and urban areas.

References
Mediating Impact of Emotional Intelligence Competencies on the Relationship of Conflict Management Styles and Service Quality of Higher Education: A Pakistan Based Study

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ARTICLE DETAILS

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<td>Revised format: 30 Nov 2019</td>
<td>This quantitative, investigation was to explore mediating impact of emotional intelligence competencies on the relationship between conflict management styles and service quality of higher education. In this study, multi-stage cluster sampling technique was applied for the selection of sample whereas SPSS was used for testing the hypothesis which measures the direct and indirect effect. Structured questionnaires were used for data collection which comprised of 5 points Likert scale. The findings proved partial mediation to emotional intelligence competencies between the relationship of conflict management styles and service quality of higher education which indicates higher the emotional intelligence competency the staff has, would have the higher the ability to resolve day to day conflicts. The research suggests that faculty and staff training programs, workshops to improve service quality would help to narrow the gap between customer’s perceptions and expectations.</td>
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<td>Conflict Management Styles; Emotional Intelligence Competencies; Service Quality of Higher Education</td>
<td>D74, D79, L15, L19</td>
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1. Introduction
The educational system in Pakistan is not very encouraging (Rasool, 2007). We cannot change the education system to change the quality of educational services. This persistent low quality problem has made the institutional environment more hostile and violent. The causes of poor quality differ greatly in services and products. The main causes of service failure are lack of leadership, care or kindness, lack of training or anxiety (Sallis, 2014). Higher education institutions (HEIs) are therefore crucial to meeting the challenges of a rapidly changing world (Haider, 2008). According to Luan (2011), the higher education sector has not responded to the needs of society and the economy for two decades because it is growing rapidly, neglecting and neglecting the quality assurance mechanisms cited (Hilman et al., 2017). Another group of scholars argue that educational services are generally intangible and measurable because outcomes translate into student transformation, characteristics, knowledge and behavior (Tsinidou et al., 2010). Due to the consistency of the product, the quality of services is a major concern for education. Education has been shown to play a key role in the creation of human capital. This will increase people's productivity and strength by creating talented employees who can steer the economy toward sustainable
economic development. A team of social scientists supports the idea of "client", ie. They clearly agree with the ambiguous idea of "customers" in education, but that does not diminish the power to provide the simplest services offered to buyers. In this way, there is a change in the paradigm from 'student' to 'client' in universities and public services to corporate or managerial approaches (Wong, 2008). To understand the concept of quality of service in educational institutions, it is divided into two parts; 1) academic quality and 2) non-academic quality. This study deals only with the non-academic quality of university services. The process of improving the quality (quality of service) of the higher education subsector can provide us with a rational strategy for what affects the quality of service in higher education. The main objective of the study is to identify the mediating effect of emotional intelligence on the relationship between conflict management styles and the quality of higher education services, in order to understand the importance of emotional intelligence in higher education.

This study bridges the customer perception gap of service quality in education which distinctively sought to improve the service quality of higher education in the light of emotional intelligence competencies to handle day to day conflicts among faculty to improve service quality. This study is a unique pursuit to find a mediating impact of emotional intelligence competencies evaluated by faculty as internal customers.

This investigation answers the following research question:

- Whether conflict management styles have a significant positive impact on the service quality of higher education institutions of Pakistan?
- Whether emotional intelligence competencies mediate between the relationship of conflict management styles and service quality of higher education institutions of Pakistan?

2. Literature Review

2.1 Conflict Management Styles (Cm)

Conflict is inevitable in individuals, it is the natural result of human interaction, relationships between individuals or organizations become incompatible or inconsistent when two or many of them crave a similar resource, which is rare when they do not share behavioral preferences about their joint actions or with completely different attitudes, values, beliefs and skills (Rahim, 2017). Some scholars believe that conflict management is better than avoiding it (Algert & Watson, 2002), as reported in (Din et al., 2011). Conflict, if managed well, will cause growth and development. People have one dominant style when dealing with conflict, although different conflicts require different methods (Din et al., 2011). Academic administrators must address all structural issues, increase employee frustration, which would have negative consequences (Galtung, 1964), as outlined in (Kriesberg, 2007). Universities have unclear lines of authority, role, and communication. Structural problems and limited resources are key sources of conflict in the identified university context (Holton, 1998). Rahim and Bonoma (1979) and Rahim (2002) categorize conflict management into two main dimensions; i.e. concerns for oneself and concerns for others. These five completely different types of conflict management avoid, threaten, dominate, integrate, and engage. It is a proven fact that conflict can have positive or negative consequences. If the impact of a conflict is positive, then it is known as a deliberate conflict, and if the impact is negative, then it is known as a negative conflict. Similarly, methods of conflict management have negative or positive consequences. Many of these methods are also non-functional, while some are also effective (Afzalur Rahim, 2002).

2.2 Conflict Management and Service Quality of Higher Education

The academic institution is ripe for conflict (Hartman & Crume, 2014; Kantek & Gezer, 2009). Because these institutions value free thinking, they are academic autonomy, conflict is inevitable and therefore can arise in any combination of students, teachers, and administrators (Bess & Dee, 2014). In particular, if educational institutions do not give their leaders sufficient time to resolve conflicts, this will take up to 25% of the time of the manager suffering from a significant human resources outflow. Conflict must vary depending on the environment. Factors such as location, campus, authority, student population, and
unions will all influence the conflict. Conflict resolution methods are as complex as the conflict itself (Garcia, 2015). Social conflicts increase diversity, friendliness and complexity. The current context of the university is much more difficult than before and so many conflict and governance forums are longer than before (Fatiele & Adejuwon, 2011). Another researcher also added, as others, Conflict is inevitable and considered a standard phenomenon. There are total human relationships in all styles of organizations (Ahamefula, 2014). Educational institutions are experiencing quite different styles of conflict, despite the recent advances in conflict management theory, if the conflict is managed properly, it will become a positive experience (Khamkhong & Tayco, 2018). The researcher thus uses a tool previously developed by Rahim (1995) ROCI-II in the following areas. These are:

- Integration (High concern for self and high concern for others);
- Domination (High concern for self and low concern for others);
- Obligation (Low concern for self and high concern for others);
- Avoidance (Low concern for self and low concern for others), and
- Compromise (Intermediate levels of concern for both self and others)

2.3 Emotional Intelligence Competencies (EI)

According to Gardner's Theory of Intelligence (1983), the emotional person is an important measure of organizational behavior. There are seven different forms of intelligence. Five of them consist of cognitive knowledge that can be functional for scientists. The practice of two of them - interpersonal and intra-personal - confirms the high chance of success. The first type of intelligence describes the ability of someone to define their criteria and use them throughout their lives. Gardner's theory plays an important role in psychology and health care. In addition to Gardner, there are three key theories in the field of emotional intelligence: Bar-On, Salovey, Mayer, and Goleman. However, with the decline in emotional intelligence, academic success and stimulating communication seem to be diminishing. People with greater emotional intelligence are more interested in their own and other emotions. Coates and Anderson's (2007) study concludes that self-confidence, commitment, sensitivity, tenacity and inspiration are the most important indicators of emotional intelligence among successful higher education leaders. After an in-depth review of the literature, it was concluded that a range developed (Sala, 2002a) could be used that could address the need to assess the emotional intelligence competencies of four clusters;

- Self-awareness
- Self-management
- Social awareness
- Relationship management

2.4 Relationship of Conflict Management Styles and Emotional Intelligence

Confidence, creative ideas and behavior and adaptability are the emotional skills needed to effectively manage conflicts. According to Barry (1999), efficiency, creativity, and productivity are, in themselves - and not supported by emotional control - detrimental to conflict management. This is because negotiation and conflict resolution require emotional interactions (Barry, 1999). Successful conflict managers must therefore be able to evaluate the emotions of all stakeholders in order to achieve maximum success. The different dimensions of emotional intelligence are critical aspects of successful decision making, leadership, transparent communication, teamwork, relationships, loyalty and innovation within jobs and companies (Cooper & Sawaf, 1997). By adding intent and emotion to rational assumptions, Thomas (1992) builds on his model of conflict. He explained this: "I tried to integrate emotions into the conflict process and to show how emotions respond to both types of thinking and how they add more force to conflict episodes" (Thomas, 1992). As emotional expression is the key to individual and organizational growth, conflict management procedures need to recognize the impact of emotional conflict outcomes (Bar-On, 1997). The link between emotions and emotional intelligence and conflict resolution is a popular course.
2.5 The Concept of Service Quality of Higher Education Institutions (SQHE)

"Quality is difficult to outline and is an elusive concept" (Sallis, 2014). Another group of scholars even describe quality as a "slippery concept" (Pfeffer & Coote, 1991). According to Crosby (1994), "Quality meets the requirements; poor quality is a disagreement". According to Juran (1988) quality is suitable for use. Deming (1982) argues that higher quality leads to higher productivity, which in turn leads to long-term competitiveness. The purpose of the organization is to optimize the whole system, not to optimize the individual subsystems. In the context of higher education, the exact concept of quality is not an easy job. The term quality education is considered infamous (Pounder, 1999, 2001) and is a very vague and tainted term (Cheong Cheng and Ming Tam, 1997). The definition of quality, adopted by most analysts and policy makers in the classroom, is a definition of proportionality for the goals of pro-rectors and more. (1989) further cited (Sahney et al., 2006). Exhibitors of this approach claim that quality is intelligent because it looks at the purpose of the product or service. Quality is judged by the extent to which the product or service meets its goals (Green, 1994; Tight, 2012a). According to Deming (1982), deviations or discrepancies in customer service are disappointing and affect the reputation of companies. This is one of the main causes of poor quality. According to Aldridge and Rowley (2001), interest in the organization becomes clear when students recognize the quality of the institution's services and the standardized learning environment provided by intellectual educators, appropriate training and infrastructure services, their interest will be reserved explicitly. Students are motivated by both the academic ability and the administrative effectiveness of the institution (Aldridge & Rowley, 2001). Maintaining other important quality services in education, such as well-maintained libraries, security systems, medical equipment, multimedia classes and equipment, conference arrangements and collaboration among administrative staff, assumes a significant job in of help for training and development (Dick & Basu, 1994; Oliver, 2014). Service organizations have achieved the need to treat their employees as internal customers and deliver them with high quality services to each external customer. As per Juran (1988), internal customers are directly involved in the production of a product or service. The task of management is therefore to systematically improve the system with the input of employees and management. According to the literature, education mainly affects the services sector. After reviewing the literature researcher hypothesizes;

H1: There is a significant positive relationship between conflict management styles and service quality of higher education.
H2: There is a significant positive relationship between conflict management styles and emotional intelligence competencies.
H3: There is a significant positive relationship between emotional intelligence competencies and service quality of higher education.
H4: Emotional intelligence competencies mediate between the relationship of conflict management styles and service quality of higher education.

3. Conceptual Framework of the Research

In the light of the above discussions, the researcher infers the accompanying conceptual framework for the investigation.
4. Methodology
Quantitative method was used for this investigation; only 18 universities gave positive response from 62 universities / institutes of Punjab province. The analytical unit in this study was all faculty members either full-time or visiting were considered of the Punjab province of Pakistan. The instruments were composed of a 5-point Likert scale. For this empirical study, "SPSS" was used for the analysis and it was found the best to know the direct and indirect effects to achieve the objectives of the study. In addition, the Taro Yamani (1967) formula was used to calculate the sample size as shown in (Singh and Masuku, 2014).

Formula to calculate sample size, \( n = \frac{N}{1+N(e)^2} \)

\( n = \) Sample size,
\( N = \) Population size, 5876 faculty members of 18 universities
\( e = \) Sampling error 5% or Margin of error

Sample Size = 375 by keeping 20% (expected non-response rate) suggested by expert we added 20% of 375, so it became 450 faculty members.

5. Results and Discussion
5.1 Demographic Statistics
The descriptive statistics data part of the questionnaire comprises five questionnaires. In this study 460 questionnaires were sent to the faculty members of randomly selected universities in Punjab, Pakistan, only 12 questionnaires were misplaced and could not be delivered to the faculty members. Finally, 448 questionnaires were returned after continues and massive follow-ups due to doubt of frivolous responses and missing information, 29 responses were discarded. A total of 419 useful questionnaires were utilized for data analysis with a response rate of 91%. The table of demographic information received regarding the Gender, Age, Education, Experience and Marital Status from the respondents is as under.

Table 1: Gender Wise Response Rate

<table>
<thead>
<tr>
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<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<td>Male</td>
<td>313</td>
<td>74.7</td>
<td>74.7</td>
<td>74.7</td>
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<tr>
<td>Female</td>
<td>106</td>
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<td>Total</td>
<td>419</td>
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<td>100.0</td>
<td></td>
</tr>
<tr>
<td>20-25 Years</td>
<td>10</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>26-31 Years</td>
<td>36</td>
<td>8.6</td>
<td>8.6</td>
<td>11.0</td>
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<tr>
<td>32-37 Years</td>
<td>133</td>
<td>31.7</td>
<td>31.7</td>
<td>42.7</td>
</tr>
<tr>
<td>Age Group</td>
<td>N</td>
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<td>Max</td>
<td>Mean</td>
</tr>
<tr>
<td>----------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
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</tr>
<tr>
<td>38-43 Years</td>
<td>105</td>
<td>25.1</td>
<td>25.1</td>
<td>67.8</td>
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<tr>
<td>44-49 Years</td>
<td>82</td>
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<td>19.6</td>
<td>87.4</td>
</tr>
<tr>
<td>50 &amp; Above</td>
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<td>41.1</td>
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<tr>
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<td>6-10 Years</td>
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<tr>
<td>16 &amp; Above</td>
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<td>.2</td>
<td>.2</td>
<td>100.0</td>
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<tr>
<td>Total</td>
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<td>100.0</td>
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<td>Married</td>
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<td>91.2</td>
<td>91.2</td>
<td>91.2</td>
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<tr>
<td>Un-married</td>
<td>37</td>
<td>8.8</td>
<td>8.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>419</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
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5.2 Mean, Min, Max, and Standard Deviation of CM Styles, EI Competencies and SQHE

Table: 2 shows higher score, means greater usage of CM styles. The Avoiding style is the largest (M = 3.25), followed by the compromising and dominating style (M = 3.24). As per the analysis Relationship Mgt. (M= 3.94) is the frequently used emotional intelligence competency among all followed by Social Awareness (M =3.88), and, lastly Tangibility remained highest (M = 3.36) followed by Responsiveness and Assurance (M =3.28) as the most responded items among all.

**Table: 2 Descriptive Statistics**

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<tr>
<td>Obliging</td>
<td>419</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>3.17</td>
<td>1.133</td>
</tr>
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<td>Dominating</td>
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<td>5</td>
<td>1</td>
<td>5</td>
<td>3.24</td>
<td>1.134</td>
</tr>
<tr>
<td>Avoiding</td>
<td>419</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>3.25</td>
<td>1.076</td>
</tr>
<tr>
<td>Compromising</td>
<td>419</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.24</td>
<td>1.099</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>419</td>
<td>17</td>
<td>1</td>
<td>5</td>
<td>3.84</td>
<td>1.052</td>
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<td>Self Mgt</td>
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<td>22</td>
<td>1</td>
<td>5</td>
<td>3.78</td>
<td>1.042</td>
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<td>Social Awareness</td>
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<td>8</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
<td>1.055</td>
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<tr>
<td>Relationship Mgt</td>
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<td>1</td>
<td>5</td>
<td>3.94</td>
<td>1.037</td>
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<tr>
<td>Tangibility</td>
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<td>4</td>
<td>1</td>
<td>5</td>
<td>3.36</td>
<td>1.141</td>
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<td>Reliability</td>
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<td>5</td>
<td>1</td>
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<td>1.163</td>
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<tr>
<td>Responsiveness</td>
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<td>1</td>
<td>5</td>
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<td>1.170</td>
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<tr>
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<td>1</td>
<td>5</td>
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<td>1.225</td>
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<tr>
<td>Empathy</td>
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<td>5</td>
<td>3.22</td>
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</table>
5.3 Composite Reliability and Cronbach’s Alpha
The value of Composite Reliability and Cronbach’s Alpha should be greater than 0.7 (Hair et al., 2014).

Table: 3 Reliability Analysis

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict Management</td>
<td>0.937</td>
<td>0.952</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>0.927</td>
<td>0.948</td>
</tr>
<tr>
<td>Service quality of Higher Education</td>
<td>0.946</td>
<td>0.958</td>
</tr>
</tbody>
</table>

In our research value of all variables are meeting the threshold value except and Composite reliability also showing reliable results for all the variables as shown in Table: 3.

5.4 Collinearity Statistics/ Variation Inflation Factor (VIF)
There is criterion value for the values of VIF according to which if the value is less than 5 i.e. (VIF <5), and a value if close to 1 indicates that there is no collinearity (Joseph, 2014).

Table: 4 Multicollinearity Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Conflict mgt. styles</td>
<td>.952</td>
</tr>
<tr>
<td>Emotional intelligence competencies</td>
<td>.952</td>
</tr>
</tbody>
</table>

Dependent Variable: Service quality of higher education

Table: 4 shows the inner VIF values of all the variables except the dependent variable because it doesn’t show the value of the dependent variable. The values of CM, EI are less than 5 and near to 1 which shows that these values lie within the threshold value thus showing that there is no multicollinearity and showing the goodness to fit.

5.5 Test of the Hypotheses
In order to test the hypotheses, multiple regressions and the correlation method were utilized. Multiple regressions were used in order to identify the relationship between two or more independent variables whereas the Pearson correlation was used to test the relationship between one dependent and one independent variable.

5.6 Pearson Correlation Test
The results of the relationship between the independent variables and the dependent variable are shown in Table:5 below. The result indicates that there is a significant relationship between is a significant positive relationship between conflict management styles and service quality of higher education, the result is $r = .559^{**}$ while $p < .01$. There is significant relationship between conflict management styles and emotional intelligence competencies, the result is $r = .219^{**}$ while $p < .01$ and, lastly significant positive relationship found between emotional intelligence competencies and service quality of higher education, $r = .309^{**}$ while $p < .01$. 

629
Table: 5 Correlations

<table>
<thead>
<tr>
<th></th>
<th>CM</th>
<th>EI</th>
<th>SQHE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.219**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>419</td>
<td>419</td>
</tr>
<tr>
<td>EI</td>
<td>Pearson Correlation</td>
<td>.219**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>419</td>
<td>419</td>
</tr>
<tr>
<td>SQHE</td>
<td>Pearson Correlation</td>
<td>.559**</td>
<td>.309**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>419</td>
<td>419</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

5.7 Mediator Regression Analysis

Multiple regressions were performed to assess the direct and indirect relationships within the proposed model and the stated hypotheses. Testing of the stated hypothesis was done so in accordance with Baron and Kenny’s (1986) was given preference over (Preacher & Hayes, 2004) mediation technique because Baron and Kenny’s approach fulfills the need of investigation and hypothesis testing. A variable functions as a mediator when it meets the following conditions: (a) variations in levels of the independent variable significantly account for variations in the presumed medication (i.e., Path a), (b) variations in the mediator significantly account for variations in the dependent variable (i.e., Path b), and (c) when Paths a and b are controlled, a previously significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path c is zero.

H1: There is a significant positive relationship between conflict management styles and service quality of higher education.

In order to assess this relationship, a regression analysis was conducted and provided an $r^2 = .312$, $p < .05$. There is a significant positive relationship between conflict management styles and service quality of higher education ($\beta = .586^*$, $t = 13.757$, $p < .05$). As per the criteria t-statistics value must be above than 1.96, and p-value needs to be lesser than 0.05 (Hair, Hult, Ringle, & Sarstedt, 2014), therefore Hypothesis: 1 was not rejected because it is meeting the threshold criteria.
H2: There is a significant positive relationship between conflict management styles and emotional intelligence competencies.

In order to assess this relationship, a regression analysis was conducted and provided an $r^2 = .048$, $p < .05$. There is a significant positive relationship between conflict management styles and emotional intelligence competencies ($\beta = .204^*$, $t = 4.581$, $p < .05$). As per the criteria $t$-statistics value must be above than 1.96, and $p$-value needs to be lesser than 0.05 (J. F. Hair et al., 2014), therefore Hypothesis: 2 was not rejected because it is meeting the threshold criteria. Figure: 4 depicts the direct relationship (note: bold represents a significant finding).

H3: There is a significant positive relationship between emotional intelligence competencies and service quality of higher education.

In order to assess this relationship, a regression analysis was conducted and provided an $r^2 = .095$, $p < .05$. There is a significant positive relationship between emotional intelligence competencies and service quality of higher education ($\beta = .348^*$, $t = 6.642$, $p < .05$). As per the criteria $t$-statistics value must be above than 1.96, and $p$-value needs to be lesser than 0.05 (J. F. Hair et al., 2014), therefore Hypothesis: 3 was not rejected because it is meeting the threshold criteria. Figure: 4 depicts the direct relationship (note: bold represents a significant finding).
was not rejected because it is meeting the threshold criteria. Figure: 5 depicts the direct relationship (note: bold represents a significant finding).

**Figure: 5**

Table 8:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>1.927, .208</td>
<td>9.260, .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>.348, .052</td>
<td>.309, 6.642</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: SQHE

H4: Emotional intelligence competencies mediate between the relationship of conflict management styles and service quality of higher education.

In order to assess this hypothesis Baron and Kenny’s (1986) criteria for mediation was followed. Path a (conflict management styles and emotional intelligence competencies) was assessed through a regression analysis and revealed an $r^2 = .048$, $p < .01$. The first requirement, a significant Path a was supported ($\beta = .204^{**}$, $t = 4.581$, $p < .01$). Next, the second requirement for mediation, Path b (emotional intelligence competencies and service quality of higher education) was assessed through a regression analysis and revealed a significant relationship ($\beta = .348^{**}$, $t = 6.642$, $p < .01$). Finally, the third criterion for mediation, Path c (when Paths a, and b are controlled for, a previously significant, Path c [as supported in Hypothesis 1] will be non-significant) was assessed through a regression analysis and revealed significant relationship Path c ($\beta = .541$, $t = 12.72$, $p < .01$). As per the criteria t-statistics value must be above than 1.96, and p-value needs to be lesser than 0.05 (J. F. Hair et al., 2014), therefore It was concluded that Hypothesis 4 was not rejected as the data supported which means emotional intelligence competencies partially mediates the relationship between conflict management styles and service quality of higher education. Figure:6 depicts the significant indirect relationship (note: bold represents a significant finding),

**Figure: 6**
Emotional intelligence competencies mediate between the relationship of conflict management styles and service quality of higher education.

Table: 9 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.683</td>
<td>.202</td>
<td>3.378</td>
</tr>
<tr>
<td>CM</td>
<td>.541</td>
<td>.043</td>
<td>.516</td>
<td>12.720</td>
</tr>
<tr>
<td>EI</td>
<td>.221</td>
<td>.046</td>
<td>.196</td>
<td>4.845</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SQHE

6. Scope and Limitations
The survey instruments applied in the current research study contained multiple-choice items and did not include open-ended questions. As a result, the argument of the study findings is limited to a reliable source of the chosen research instruments. Consequently, in this research study, only student perception was considered to gauge service quality of higher education when rating provided by faculty as internal customer particularly to nonacademic departments and the demographics remain restricted to one province (Punjab).

7. Recommendations
Researchers can replicate current research at other larger private and state universities, institutes in different provinces of Pakistan. An additional consideration for future research would be to carry out a qualitative approach, and future researchers could consider the extended role of environmental or cultural factors on the relationship between faculty and students. And furthermore, there is a requisite to replicate this research model to the faculty’s perception of academic and nonacademic quality of higher education institutions of Pakistan.

8. Conclusion
The fallouts of this study seem most probable agreeing to the culture or norms of Pakistan as faculty, most often chosen avoiding style, followed by dominating and compromising style for handling conflicts and commonly used relationship management followed by social awareness among emotional intelligence competencies, while repeatedly chosen tangibility followed by assurance among all dimensions of service quality. It would be relatively practical for higher education institutions to offer policies, practices, and procedures, clearly formulated, understood well, humane and fair to provide quality services and support to all departments to improve the satisfaction of internal and external customers. The institutions would respond to customers’ perceptions by narrowing the gap between expectations and perceptions through training of faculty and staff. The research also suggests that higher the emotional intelligence competency would increase the capability to resolve day to day conflicts to improve the service quality of higher education in Pakistan.

References


Core Urdu Vocabulary for Chinese Business Community in Pakistan, A Corpus-based Perspective

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ARTICLE DETAILS

ABSTRACT

With the dawn of 21st century, the world has grown into a global village and the need for inter-communal interactions has also increased many times. Urdu language is said to be one of the third biggest language of the world along with Chinese and English and its speakers are constantly on the rise. With the emergence of the CPEC (China Pakistan Economic Corridor), Urdu has assumed ever increasing importance due to the geopolitical and geo-economic condition of the South Asian region. The undertaken study is a systematic attempt in this regard to work out a list of most frequent words of the Urdu language for the Chinese business community in Pakistan. Schmitt (2000) asserts that learning a non-native vocabulary is a continual process as the core vocabulary should encompass the ever-changing linguistic needs of the time. The name of the Urdu corpus for the undertaken research is urTenTen that has been compiled from internet data. The corpus belongs to TenTen corpus family that is corpora of the web with more than ten billion words. The corpus has been tagged according to Unified Parts of Speech (POS) Standard in Indian Languages. In order to process data, “Sketch Engine” has been used. List of frequent words for the Chinese Business Community has been retrieved from urTenTen corpus with the help of Sketch Engine. The retrieved list of core Urdu vocabulary is supposed to be useful for the Chinese business who is supposed to interact with the Urdu speakers of the region.

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1. Introduction

Pakistan is a developing country of South Asia. The region has been under colonial rule for many decades. The result is disintegration and the deteriorating economy. Pakistan is not an exception in this regard. In these pursy times, CPEC is a massive opportunity to boost Pakistan Economy. China-Pakistan Economic Corridor (CPEC) is the major part of the One Belt One Road (OBOR) that has roots in the traditional Silk Road. This new trade facility will not only provide China a cost effective chance of trade to global regions but it will also upgrade and expand the existing Pakistani economy and infrastructure.
With the emergence of China-Pakistan Economic Corridor, there have also been signed many agreements between China and Pakistan. For this purpose, visits of the officials of both the countries have increased many times. Apart from these visits, many Chinese officials are constantly present in Pakistan for technical assistance. There is a significant language barrier between the communities of Pakistan and China. Moreover, Chinese and Urdu are absolutely different languages that have opposite linguistic origins. As a result, the officials of both the countries have to face a lot of linguistic obstacles that may hamper the true spirit of China-Pakistan Economic Corridor. Consequently, a wordlist of Urdu language that is quite frequent, is the need of the hour to help the Chinese officials in Pakistan for successful communication.

Significance of vocabulary especially in foreign language learning and teaching is an established phenomenon (Biemiller, 2004). It determines the procedure of foreign language learning. The traditional methods to handle foreign vocabulary have hampered linguistic creativity of the language learners.

One of the reasons of this obstructed linguistic creativity in the foreign language learners is the teachers centered approach of the learners of the foreign language who are at the lowest paradigm of autonomy (Neuman & Dwyer, 2009). In traditional foreign language class rooms, the teacher gets his own practice of vocabulary items and the learners’ role is very passive.

Secondly, with the advent of new approach of lexical item to vocabulary, the focus has been on a long range of vocabulary items from single words to multi-words items or phraseology in the words of Moon (2006). The various forms of Urdu words are کتاب (single word lexical item), دود کے ڈھول سہانے (proverb), مَلْکِی خزانہ (collocation), بولنا بند کرنا (idiom), بت پرستی (compound word), دُالِ کی ذُهول سِبائِی (phraseology), etc. The handling of this type of complex vocabulary has never been an easy task.

In foreign language context, there has been felt a great need to improve this dismal situation, because learning a long range vocabulary of a foreign language was putting pressure on the overall comprehension of the learners. With the emergence of innovations in foreign language teaching, there have occurred many motivating techniques and there is a considerable shift to student centered approach and autonomy rather than following the orthodox approach of language teacher as the policeman of the classroom. The use of computers in language teaching in the form of great corpora has also improved the situation of foreign language learning.

According to Hughes and McCarthy (2001), the vocabulary of a language covers all aspects of social life. Qain (2002) describes vocabulary of a language in terms of depth, size, learner’s autonomy and lexical organization. Presence of large multi-purpose corpora has made it possible to implement Qain (2002) learner friendly language theory with encouraging results. In this regard, retrieved frequency list with the help of large corpora has proved very useful in foreign language context.

Statement of the Problem:
Urdu is one of the top five most spoken languages of the world. Its ever increasing importance is due to socio-economic and geo-political position of the region where it is spoken, especially, the emergence of China-Pakistan Economic Corridor has increased the importance of Urdu language many times. In these conditions, it has become the need of the hour to work out for a specific vocabulary of Urdu language for Chinese business in Pakistan as the major portion of China-Pakistan Economic Corridor is being carried through in the Pakistani territories where Urdu is spoken as an official language. Consequently, a vocabulary list of Urdu language that is very frequent, can help the Chinese businessmen in Pakistan to communicate successfully over any speech event. As, Urdu is a pidgin language, its vocabulary is very diverse with lot of loan morphology.
As vocabulary plays a significant role in overall comprehension of the language, it is the need of the hour to work for the focused and core vocabulary of the Urdu language for Chinese so that comprehension of the language may be improved in less time with maximum autonomy of the Urdu learners of the foreign language.

2. Research Methodology

Corpus linguistics has revolutionized the art and craft of foreign language teaching. Corpus is a collection of spoken or written text that is presented in electronic form. The corpus data is collected from real life situations to make the corpus more productive and helpful (Mukoroli, 2011). There are many corpus tools to work with the collection of electronic text that help in determining new emerging meanings, spellings, word sketch, n-grams, concordance, key words, frequency lists, etc. The name of the Urdu corpus for the undertaken research is urTenTen that has been compiled from internet data. The corpus belongs to TenTen corpus family that is corpora of the web with more than ten billion words. The corpus has been tagged according to Unified Parts of Speech (POS) Standard in Indian Languages. In order to process data, “sketch Engine” has been used. List of frequent words for the Urdu learners has been retrieved from urTenTen corpus with the help of sketch engine. The following diagram shows the weightage of the collection of corpus from various domains.

Diagram 1. Urdu Geo-political origin

Diagram 2 Courtesy to urTenTen corpus of the Urdu Web.

2.1 Place of Corpus in L2 Learning

There have been brought many innovations with the help of corpus in nearly all field of linguistics. Especially, applied linguistics is the most influenced discipline in this regard. Linguistics in Corpus is a relatively new way of studying linguistics as it develops rapidly since the 1980s with the development of
computer science, which offers dynamic technical support. With the advantages are almost incomparable in delivering huge amounts of real, efficient and powerful ability to research and study. Corpus linguistics and its use in teaching and learning attracted a lot of EFL researchers. The importance of corpus linguistics has also been widely accepted. A lot of linguistic studies on how linguistics can facilitate teaching and learning activities of various Language levels, has highlighted the scope of corpus linguistics.

Johns (1986) identifies the significance of concordance in L2 learning. He states that the issue of L2 vocabulary can be handled in a successful manner if the learners of the foreign language are exposed with the concordance of the lexical items. McCarthy (2001) establishes the significance of past perfect verb form in spoken and written discourse with the help of corpus. Corpus refers to the composition of the natural words, containing everything from a few sentences in huge bulk, written or oral for language learning. Recently, the word "Corpus" has been reserved for a collection of letters (or parts of the manuscript) that are stored and stored electronically. Because computer can pack and process many files information, electronic banking is generally larger than the academic literature before used in the study of words. The process is dead but the odds can play a part in the text collection, and it is designed for some purpose. Specific purpose of the decision model choice of texts, and the purpose is rather to store the books themselves because they are internal force. This separates the corpse from a library or electronic archive. This storage is kept there in a way that it can be learned in a linear way and effectively.

Cacoullos and Walker (2009) examines the multiple use of “will” and “going to” with the help of corpus analysis and conclude that their use is not determined by certainty or intention. The application of corpus linguistics in teaching can be divided into two aspects: the direct one: taking the relevant knowledge of corpus linguistics: means of developing a linguistic corpus, and applications of linguistic corpus as the teaching materials; and the indirect one: based on both corpus and computer technology, including compiling corpus-based dictionary, editing grammatical reference, textbook, developing multimedia courseware, language learning software, or evaluating or testing tools. Vocabulary is one of the three basic elements of language and is taken as the backbone of the whole language system as pointed out by Sinclair (1992) “If the language regarded as the bone of the tongue, the vocabulary offers vital organs, flesh and body. He further argued that without grammar, many can happen to express in languages, but nothing can be expressed without vocabulary.

Reppen (2009) asserts that corpus tools like MonoConc and Wordsmith can be motivating for the foreign language learners and teachers. He states that foreign language learners and teachers should develop their own corpora of multiple registers for better handling of vocabulary issues. Corpus linguistics has not same sense of potential as semantics, syntax, and pragmatics. Its real significance is in its empiricism as it takes into account the real patterns of language. Its analysis is objective and verifiability. It allows the collection of different genres and registers which makes it possible to show the wide repertoire of language. The corpus analysis is democratic in its approach as it provides equal chances to non-native speakers as to native speakers. Lastly, focused results can be obtained for pedagogical purposes.

According to Reppen (2009) corpus tools like MonoConc could help the teachers and the learners of the foreign language to develop their own material on vocabulary to determine the various shades of meanings and use. He also suggested using the reference corpora and multiple registers for the better handling of vocabulary issues.

The role of corpus in handling the challenging issues of foreign language vocabulary is an established phenomenon and it has changed the entire scenario across many branches of linguistics. Apart from this, it has led towards the autonomy of the L2 learners that was being hampered in the traditional class rooms of L2 learning (Hoey, 2000). Finally, corpus has helped in determining core vocabulary of any language that was not possible in the past and the L2 learners had to cram long list of vocabulary items. As a result, the undertaken research has adopted a corpus perspective to retrieve a core list of frequent words for the Urdu
learners of a foreign language. The core list of Urdu language may also be useful for Urdu lexicographers, lexicologists, grammarians, etc..

Vocabulary is widely applied and its education is playing an increasingly important role in language learning. Linguists turn to the corpus linguistics for the ways of improving the language learning, which does make sense, especially for EFL vocabulary learning. As the learners lack a real context for the application of the language, sometimes, it is difficult for the learners to handle their learning and to acquire the usages and meaning of certain words accurately. The application of corpus linguistics into EFL vocabulary learning can almost perfectly deal with that, for the language data in the corpus are all from natural contexts, which can help the learners to use the word accurately and properly. Corpus was used to conduct research in Europe in the early eighteenth century; the procedure was followed, with a great deal of time and effort. In the nineties, the main application of the corpus was the study of the dictionary and the use of grammar. It started getting eminence in the 1950s but began to recede in the mid-80s.

During EFL learning, learners are more or less exposed with the native language, which is called transposition of the first language. The transfer can be both positive and negative. The negative change affects the traditional comprehension of the accepted language. However, the expression of the same situation is different in two languages. There may be differences in both the situations. Negative changes affect the learners understanding of the new knowledge of the foreign language and communication. The consequences of negative changes are very high is also often found in EFL vocabulary learning

2.2 Core vocabulary List of the Urdu Language
Urdu belongs to Indo-Aryan group within Indo-European family of languages. Its current place of use is South Asia. It is official language of Pakistan and one of the official languages of India. Urdu language is spoken by more than one hundred and twenty million people. Urdu is ranked as one of the top three languages of the world along with Chines and English. Urdu has rich vocabulary and has the impact of many regional languages. Its vocabulary is also very diverse and not easy to handle for the foreign learners. With the emergence of corpus and its tools, there have occurred innovations in the field of foreign language learning (Granger, 1998). It has taken place the orthodox techniques being used in the traditional foreign language class rooms. Structurally, Urdu is a complex language. The reason behind the fact is that Urdu is a pidgin language and has the impact of many regional languages of the region. Consequently, learning Urdu as a foreign language is a challenging task. Core vocabulary, retrieved through corpus data, can be used to face the challenges of Urdu as a foreign language. The use of corpus and tools in the Urdu language are comparatively a new phenomenon but they have strong potential to motivate foreign learners of Urdu language. The retrieved Urdu list of frequent words can be reshaped according to the needs and levels of the learners. It will counter the traditional laborious wordlists of Urdu language that are not actively used in the real written and spoken discourse. The large number of Urdu files refers to the bulk of the corpus, resulting in a focused and core vocabulary list.

2.3 Word List
According to McCarthy (1998) corpus data is generally gathered with two approaches. The first approach is the genre approach that does not rely only on a pre-decided idea of a text but also endeavors to create a healthy balance between the context and the language use with repeated patterns. It focuses the population of language users, the context in which language is used and the environment. While, the second approach is called demographic approach where the users of a target language are focused and there is a consideration of the span of the time as well during which that language has been used.

The genre approach is generally employed to compile corpus of a foreign language. The samples of corpus are different from one component to the other. Keen observation and intuition are used to decide the appropriateness of the corpus sample. The sample size is basically determined on the basis of two
factors. The considerable factor is the availability of the text and the second important factor is the readership of the selected text.

Following is the list of frequent words of the Urdu language. The retrieved list is quite extensive but only the top two hundred frequent words have been indexed here. The list can be used as a point of departure and the list can be extended according to the level and the needs of learners of Urdu as a foreign language.
Frequency word lists of the languages continuously evolve and grow with the passage of time (Henriksen, 1999). Similarly, word list of Urdu language is dynamic and can be upgraded with the ever changing needs of the L2 learners and time. The rationale behind using large corpus to retrieve these lists is that the words in the list should reflect all aspects of life from social to academic. As the proposed word list has been driven from a large corpus of Urdu language, it is supposed to be productive and potential for the L2 learners of the Urdu language and will encompass all domains of Urdu culture.

3. Analysis and Discussion

Descriptive research of a language is useful from many aspects. Apart from helping the foreign language learners (Gleason, 1961), it helps the translators to translate books for the foreign learners with lexical sensitivity, for the grammarians who intend to publish books on lexis and in language teaching for native speakers as well as for the foreign learners of the language.

3.1 Structurally, Urdu is a different language from English

The significance of such descriptive studies becomes all the more important when the non-native learners of the Urdu language constantly make comparisons of the target language with their mother tongue. Realistically, such convergence of the target language and the mother tongue is not potential as “sunny day” and “دھوپ والا دن” have difference of meaning when used in their respective cultures. Conversely, these attempts of convergence by English learners may lead to unsuccessful handling of the Urdu language.

As language is culture, expressed by language and no expression of language can occur without suitable word combinations. The above description of lexicon of the Urdu language is potential as it is replete with cultural information. As the corpus data has been collected from various domains of Urdu culture, the vocabulary list also reflects the word associations with full cultural meanings as the word روشنی (light) is occurring with word choices like القرآن الكريم (The Holy Quran) حدیث (Hadees), etc. connoting to some extent the Muslims background of the Urdu lexicon.

The above description of Urdu collocations shows that some words accept more word choice than the rest. For example a few Urdu adjectives take more Urdu nouns in association in comparison with Urdu nouns that accept Urdu verbs. For example Urdu noun “صدر” (president) take more nouns in association in comparison with Urdu verbs.

Predictably, Urdu vocabulary described in the above section, can be classified the most frequent as they have been retrieved from large corpus data. Without considerable awareness of frequent wordlist, as supported by Lewis (2004), it is difficult to handle overall language skills of Urdu. These are the vocabulary items that shape the linguistic expressions of non-native learners, natural and fluent even though they lack grammatical strength sometimes. However, it is an established fact that Urdu as L1 and as L2, lexical development differ significantly. The first difference in the case of Urdu as L2 is the poverty of input of the word combinations in terms of quality and quantity that make the bulk of Urdu lexicon. The L2 learners of Urdu have to face lack of contextualized data that can only be presented in the
form of lexical collocations. This situation puts foreign learners of Urdu language in an extremely difficult position to create syntactic, semantic and morphological harmony among word associations of Urdu language and they are at a loss to integrate words into acceptable combinations. Learners of Urdu as a foreign language usually focus on the single words items and disregard their association and context. Consequently, they often refer to their mother tongue to produce word combinations in the target language that results in unacceptable lexical choices.

Summing up the corpus data, it can be safely claimed that Urdu is a very rich language. Its lexicon structure is very diverse. Urdu language offers many word combinations of lexical collocations that are constituted with the help of single words. The corpus data of Urdu lexical lexicon can be very useful in the description of Urdu language at the level of lexis.

4. Concluding Remarks

From a global point of view, the number of explicit vocabulary learning activities is quite high because it achieves 1/3 of all actions in the textbook. This it should be added that the percentage of explicit and accidental vocabulary activities are uniformly distributed along the units, as shown by the distribution of activities per unit. We must therefore conclude that in terms of the amount of work devoted when it comes to learning vocabulary, corpus strategies are well on the learner’s way to achieving their goals of learning vocabulary.

Corps linguistics, based on the application of technology, shows its advantage in the EFL vocabulary because of the ease of exploration and the natural content that it is given to the target word. Although the quality of the corpus language in the EFL guidelines is grounded, as it has been identified above. In order to eliminate its disadvantage and make good use of it, a corpus should provide a context in which a word is present while not yet representative of it angels of all meanings and relationships of the text. Moreover anything provided by the corps can only be used as evidence, rather than information.

This exploration establishes that language corpora can upgrade the nature of vocabulary learning in second or outside language classrooms. By showing advantages of language corpora to learners, it is trusted that this examination can be useful to learners who are attempting to look for a productive method for learning vocabulary. The aftereffects of corpus based review will ideally guarantee the understudy's needs to create vocabulary at intermediate level. This is the primary investigation of its sort and fills a critical crevice in research on vocabulary techniques.

Vocabulary handling in any L2 program is a key indicator in overall comprehension of the language (Bauer, 1998). Computers and soft wares have contributed in improving this situation. The retrieved frequency list of Urdu language is supposed to be very helpful for the Chines business men who are working in various capacities in Pakistan. The use of corpus and soft wares will also lead towards of the learners in the foreign language class rooms. The undertaken research is an innovation in the art of foreign language learning and fills a critical crevice in vocabulary building of Urdu language for the Chines business community in Pakistan.

References

Henriksen, B. (1999). Three dimensions of vocabulary development, OUP.
Principals’ Decision-making Practices at Public Degree Colleges Sindh: Teachers’ Perceptions

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ARTICLE DETAILS

ABSTRACT

This study investigates the impact of principal’s commitment on the power, college culture, and college effectiveness in decision-making practices at public degree colleges of Sindh and to determine the effect of participative decision-making to improve the overall performance of teachers and students. The sample comprising n=646 (n=426 (66%) male and n=220 (34%) female) teachers was randomly selected from amongst 122 colleges out of 244 public degree colleges of Sindh. The principal’s decision-making practices were measured through four latent well-established constructs, which include principal’s commitment, principal’s power, college culture, and college effectiveness. This study is quantitative in nature wherein the researcher used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to estimate the validity and reliability of the measurement or outer model through SPSS version 19 and AMOS statistical software. However, the model fitness was ensured with the help of seven frequently reported goodness of fit indices. Results revealed that there is a statistically significant impact of principals’ commitment on power as sig. value is .000, there is a statistically significant impact of principals’ power on college culture as sig. value is .035 and there is a statistically significant impact of college culture on college effectiveness as sig. value is .007 in decision-making practices at public degree colleges of Sindh. Future studies may ascertain the impact of principal’s power and commitment on the college effectiveness using college culture as mediator in participatory decision-making practices in the context of Pakistan.

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1. Introduction

It has been recognized at the global level that development of nations is closely linked to education. Educational set up is not possible without teachers (Ricard & Pelletier, 2016). In spite of gigantic progress in the field of science and technology, the need of teachers is unavoidable who play a significant role in
the learning process through motivation, their learning experiences and performance (Arifin, 2014). Success and failure of college or school is related with the performance of teachers (Wildman, 2015). Performance of teachers is connected to leadership qualities of school and college principals who inculcate professionalism in them through supervision (Adetula, 2005). Hence, effectiveness of learning process requires efficient leadership qualities of principals in schools and colleges (Wildman, 2015).

Heaton (2016) states that being the head of a college, the prime responsibility of the principal is to run the college smoothly by taking all teachers on board. Lundgren (1983) has also put this idea forward that principal is a manager who manages all the activities with the support of people for improvement of organization. Productivity and achievement of set targets is closely linked to the management skills of principals (Ducker, 1986; Snell, Morris, & Bohlander, 2015).

The most important role of a principal is decision-making regarding academic matters through which he assigns a task to faculty members and office staff for achieving the desired results (Hussain, 2011). Recently, participative decision-making has got momentum in western countries and receiving a great deal of attention from researchers in various organizations. Teachers’ participation in a decision has been given importance in the reforms of education. Therefore, participation in decisions in the context of education has great importance all over the world by researchers and practitioners (Conley, 1991; Lee & Nie, 2014; Smylie, 1992). Through this study, principal’s leadership was investigated from all aspects. It was found out that whether a principal was willing to empower and include faculty members in the process of decision-making.

Maheran, et al. (2009) and Al Medlej (1997) state that decision-making is the most significant activity in a day-to-day affairs of life. Managers have to take important decisions in an organization. They take decisions to execute the chalked out activities that the set objectives and goals can be achieved. Failure of quality decisions may lead the organization towards destruction or it may spoil the image of it.

Decision-making is considered as a complete process by thinkers. The process is based on various steps; starts with identifying the problem and completes with getting results. College principals make important decisions and are directly responsible to Ministry of Education. They are not only managers but also supervisors of colleges (Yambo, 2012).

Researchers have defined the process of decision-making. They are of the view that decision-making is not one-shot activity but requires a serious deliberation to reach an effective and positive conclusion. Decision-making process is based on four steps: identifying the problem, collecting information, creating and selecting alternatives, and reaching the solution (Hellriegel, Slocum & John 2011). Decision-making process requires recognizing the problem and selecting suitable solutions to reach expected results (Madali, 2016). Decision-making starts with the identification of problems and opportunities that are broken up into divisions. This activity continues until evaluation and implementation of the results (Daft, 2010). McShane, Steven, Von and Mary (2010) have also defined the decision-making process in the same way. They state that decision-making is a wake process through which decisions are chosen from alternatives for reaching to the expected targets. George, Jennifer, Jones, and Gareth (2012) define that decision-making process holds up members of the organization together to choose a certain action either for the availing of opportunities or for resolving issues. Griffin, Ricky, Moorhead and Gregory (2014) state that, decision-making is to choose a favorable alternative among many other alternatives.

This study is different from other studies in Pakistan in the way that participation of teachers in decision-making at a public degree college level has been explored on the basis of ground realities in depth. Participative decision-making is the global phenomenon and being practiced in the developed countries of the world. However, leadership behaviors and activities have been tested in the context of Sindh.
The problem is that in Pakistan, participative culture hardly exists in public sector institutions. The government runs schools, colleges, and universities to educate the students at cheap rates that low-income students can acquire education (UNESCO, 2006). But the hindrances in the way of achieving the objectives of education is hierarchical power structures in which officers from top to bottom only possess authority (Bacchus, 2001; Khalid, 1996; Memon, Nazir Ali, Simkins, & Garret, 2000). In such a situation, teacher is neglected and administrators or other officers are preferred to take decisions for the students. This overall bureaucratic system does not give importance to a teacher who is the necessary part of this change process (Ali et al., 2014; Simkins, Sisum, & Memon, 2003; Tajik, 2008).

Research findings show that when teachers and stakeholders are encouraged to take part in decision-making, it produces valuable results. Involvement of employees in decision-making boosts up their satisfaction, motivation, morale, and self-esteem and is beneficial in implementation (Chapman & Boyd, 1986; Gamage & Pang, 2003; Hargreaves & Hopkins, 1991). Similarly, participative/shared in college or school management practices promote commitment and loyalty among employees (Beyerlein, Freedman, McGee, & Moran, 2003; Chapman & Boyd, 1986; Hargreaves & Hopkins, 1991; Wong, 2003). Likewise, researchers assert that to promote participative setup people should be provided a chance to give their views through open communication for solving the issues (Hargreaves & Hopkins, 1991; Owens, 1998).

Participative decision-making in colleges is not Aladdin’s lamp or magic to solve all problems but needs all hands together to put the institution on the road of success. It depends on the democratic style of the principals to create a favorable environment to promote a culture for collaborative leadership. Empirical studies have disclosed that there are certain factors, which have affected the decisions of principals. Among other factors commitment, power, culture, and effectiveness are most prominent. The latent constructs "Commitment", "Power", "Culture" and "Effectiveness" have been explored individually in the previous studies, however, this study focuses the association between these four variables in the participative decision-making process. The researcher aims at exploring the relationship between Principals' Commitment, Power, College Culture and College Effectiveness in the Public Degree Colleges of Sindh.

2. Literature Review and Hypotheses
2.1 Commitment and Power
Commitment means progress or product, which a person achieves through agreement with either decision or request by taking efforts on his part to implement the decisions effectively and efficiently. Commitment is vigor or strength, which shows the track to a person to achieve the targets (Herscovitch & Meyer, 2002). The term Commitment is further divided into three components; affective, continuance and normative and was adopted as a model by researchers (Allen & Meyer, 1996).

Commitment has been the most researched topic in organization (Hackney, 2012). Commitment has three dimensions i.e. affective (emotional attachment), continuance (cost of leaving and staying in the organization), and normative (obligation to continue in the organization) (Allen & Meyer, 1996). Employees at workplace or Principals/teachers attach and identify themselves with organization/school through commitment (Albdour & Altarawneh, 2014). Principals/teachers are called committed when they are strongly attached to schools/colleges (Hellriegel, Slocum & Woodman, 1998). Moreover, commitment towards the organization is of vital significance because it stimulates employees to work with full vigor and force (Nurharani, Norshidah, & Afni Anida, 2013). Committed employees rarely think to leave an organization and work with sincerity and fervor (Pascal, Pierre-Sébastien, & Lamontagne, 2011).

Researchers have come up with conclusion that commitment has glued the educators in technical and vocational education even in the phase of transformation (Rabindarang, Khuan & Khoo, 2014). Swarnalatha (2016) found that majority of teachers in Secunderabad and Hyderabad were less committed to work, so their level of commitment was average. In conclusion, the researcher suggested and
emphasized the importance of commitment of teachers. He said that without affective attachment teachers might not survive in the ever-changing circumstances.

Power is also an important factor in decision-making. Achua and Lussier (2013) state that power is potential which leaders exercise to influence their subordinates. Powerful leadership has capability to bring change in the behavior of their subordinates, control their attitude, their opinion, their purpose, their needs, and their values. The same idea was supported by Griffin, Ricky and Gregory (2014) when they confirmed that power is a potential owned by a person or group and is exercised to control a person or group of subordinates. George, Jennifer and Gareth (2012) defined that power is the capability of a person or group to get the important task done from others, which they think quite difficult or impossible. Schermerhorn and Wright (2011) express power as a capability of pursuing others to work or think for getting desired outcomes. Power is a psychological force, which helps individuals in achieving the desired results (Keltner et al., 2003; Galinsky et al., 2015). It may be concluded that power gives strength to an individual to utilize all resources for influencing other members to meet the organizational goals.

Power that is exercised in educational administration is called social power. The use of the power by college principals plays an important role in making school and college effective or ineffective and represents their styles of leadership (Nir&Hameiris, 2014). In Turkey, research studies have been carried out on principals’ power bases and its various dimensions by adopting Raven’s (2008) power taxonomy. The taxonomy comprises six dimensions of power; coercive, reward, legitimate, referent and informational or persuasive power. The researchers have found a strong relationship between principals’ power basis and teachers’ organizational commitment (Sezgin&Kosar, 2010).

In this regard, the following hypothesis is proposed:

H1. There is a statistically significant impact of Principals’ commitment on power in decision making at public degree colleges in Sindh.

2.2 Culture and Effectiveness

According to Bedarkar, Pandita, Agarwal and Saini (2016) culture plays a vital role in the growth of any organization. Culture of all organizations is not same therefore; every organization develops its own culture, firmly maintains, and represents it as a substantial element of the organization. Culture is the most important aspect of school/college, which not only determines school or college effectiveness but also earns it distinguished position (Bolman& Deal, 1991). Every school is like a formal organization having a different culture that has been shaped by developing relationship among school leader, teachers, students and other stakeholders. Robbins and Judge (2013) defined organizational culture as a system in which all members have shared meaning and make themselves distinguished from other groups of organization. DuPont (2009) supported the idea; states that college or school leadership (Principals) is well conversant with the significance of culture, and know that positive culture creates committed teachers whose contribution guarantee sustainable achievement. A good leadership of principal develops a positive culture in educational institution. In organization, culture is a framework of certain rules, customs and values to be followed by the members of the organization. These norms denote organizational behavior of members in the organization (Monga, Monga, Mahajan, &Monga, 2015).

Researchers are also agreed that culture and leadership have brought a significant change in the organization (Burke, 2017; Cameron & Quinn, 2011; Kellerman, 2008; Quinn, 2010; Schein, 2010; Senge et al., 1999). Researchers discussed that shared management leadership may influence the culture and it increases the ability of an institution for accepting external and internal challenges (Birnbaum, 2004; Kezar, 2001; Shinn, 2004; Tierney, 2008). According to Kaplan and Owings (2013), school culture consists of values, norms, shared coordination and activities of the members. Culture is bond that holds together whole school unit. Strong culture is not only guiding force for management but it also facilitates and compensates the members (AbTalib, Don, Daud, & Raman, 2015).
In the words of Nor and Roslan (2009), school and college culture ensures a positive relationship, sense of ownership, and self-concept among teachers. Principals play their significant role in shaping school culture that students may feel self-worth and confident.

In the light of the above literature, the following hypothesis is proposed:

H2. There is a statistically significant impact of Principals’ power on college culture in decision making at public degree colleges of Sindh.

It is the on the top priority of leaders, teachers and societies that school effectiveness may be improved. Apart from other factors, school culture is most important factor to contribute in school effectiveness (Badri, et al., 2014; Bhengu & Mthembu, 2014; Scheerens, Witziers & Steen, 2013; Aidla & Vadi, 2007) and teachers’ job satisfaction (Hosseinkhanzadeh, Hosseinkhanzadeh & Yeganeh, 2013; Michaelowa, 2002; Somech & Drach-Zahavy, 2000; Treputtharat & Tayiam, 2014) among others.

The effectiveness of any organization is referred as productivity, excellence, efficiency or quality. Organizational effectiveness is closely associated to the people and their performance. It depends upon the satisfaction of stakeholders; students, parents, teachers, and leaders. Many colleges are facing hindrances in the way of effectiveness because valuable teachers are not encouraged and motivated to participate in the college decisions. This conceptual framework is handy in the management of higher education and helps the principals to manage and motivate the faculty members. In this way, management and faculty members may collectively play their role in college effectiveness.

Many research studies have been conducted on the organizational effectiveness (Rojas, 2000). Cameron (1978) state that various models have been developed to measure the organizational effectiveness but in the context of educational institutions, little work has been done by the researchers. Karagöz and Öz, (2008) support the same idea that little research work is available on organizational effectiveness in the field of education.

Research studies have identified the relationship between school or college culture and effectiveness. It has also been found that organizational culture has brought significant and positive effect on subordinates or workers and ensured the satisfactory results. This is also true in the world of education where school culture may increase performance of teachers on the one hand and students’ achievement on the other (Badri et al., 2014). A study was carried out to investigate relationship between culture and effectiveness in 60 Estonian secondary schools. Interviews were conducted on the basis of organizational cultural questionnaire to measure school culture through interviews from school administrators and teaching and non-teaching staff and the performance was tested on the basis of Annual results. The findings of the study revealed that the culture has a positive effect on performance of school (Aidla and Vadi, 2007). In a meta-analysis of 155 researches from 1984 to 2005 on school effectiveness, the research findings explored a strong effect of school effectiveness on students’ results. The research study also found the impact of environment on the achievement of students (Scheerens, Witziers & Steen, 2013).

One of the research studies discovered difference between students output of two “sister” schools. The reason was leadership approaches of heads of schools because school principals play their roles in shaping and maintain different cultures. It was found that school culture and effectiveness is directly related to school leadership (Bhengu & Mthembu, 2014). A study was conducted on elementary school that found indirect impact of principals on effectiveness through school culture (Hallinger, Bickman & Davis, 1996).

In the light of the above literature related to different educational institutions it may be concluded that there is a strong relationship between school or college culture and effectiveness. Furthermore, school culture does not have only direct influence on effectiveness but also through teachers’ performance on
students’ achievements (Gamoran, Secada & Marrett, 2000; Stearns, Banerjee, Mickelson & Moller, 2014). In this regard, the following hypothesis is proposed:

H3. There is a statistically significant impact of college culture on college effectiveness in decision making at public degree colleges of Sindh.

In the light of the above theories the following conceptual framework has been developed.

3. Research Model

Figure No 1

4. Methodology

4.1 Sample and Data Collection

The author has taken quantitative study from his own doctoral research (Dissertation). This study was quantitative in nature for computing the latent constructs in order to generalize the findings and to present a clear picture of large scale-social trends and relationship between the latent variables. The experts in the field of education analyzed the face and content validity of survey questionnaire and then it was sent to the teachers of public degree colleges of Sindh. A workable data were received from a sample n=646 (including n=426 (66%) male and n=220 (34%) female) respondents.

Table No 1:
Respondents’ Demographic Profile (n= 646)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic Variable</th>
<th>Items</th>
<th>Frequency</th>
<th>Percent</th>
<th>Total Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>426</td>
<td>65.9</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>220</td>
<td>34.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26-35 years</td>
<td>170</td>
<td>26.3</td>
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<td></td>
<td>36-45 years</td>
<td>251</td>
<td>38.9</td>
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<tr>
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<td>46-55 years</td>
<td>203</td>
<td>31.4</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>56 years and above</td>
<td>22</td>
<td>3.4</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Experience</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>5 years and below</td>
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<td>5-10 years</td>
<td>165</td>
<td>25.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11-15 years</td>
<td>126</td>
<td>19.5</td>
<td></td>
<td></td>
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<td>16-20 years</td>
<td>110</td>
<td>17.0</td>
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<td>21-25 years</td>
<td>120</td>
<td>18.6</td>
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<td></td>
<td>26 years and above</td>
<td>59</td>
<td>9.1</td>
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<td></td>
<td>Education</td>
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<td></td>
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</tr>
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<td></td>
<td>Master Degree</td>
<td>610</td>
<td>94.4</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>M. Phil.</td>
<td>29</td>
<td>4.5</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Ph. D.</td>
<td>7</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Professional Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate Courses</td>
<td>172</td>
<td>26.6</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>B. Ed.</td>
<td>102</td>
<td>15.8</td>
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<td>M. Ed.</td>
<td>101</td>
<td>15.6</td>
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</tr>
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<td></td>
<td>Not any</td>
<td>271</td>
<td>42.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2 Composition of Data
There were twenty indicators in the survey inventory related to four latent constructs such as principal’s commitment, principal’s power, and college culture and college effectiveness. The research participants were asked to rate their responses on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4.3 Analysis and Results
This research study performed reliability, CMVB, and exploratory factor analysis (EFA) through SPSS version 19, and hypotheses testing through statistical software i.e. AMOS version 19.

Table No 2
Reliability of all latent constructs (Main Study, n = 646)

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No of items</th>
<th>Cronbach’s Alpha Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making Inventory</td>
<td>20</td>
<td>.766</td>
</tr>
<tr>
<td>Principals’ Commitment</td>
<td>4</td>
<td>.736</td>
</tr>
<tr>
<td>Principals’ Power</td>
<td>3</td>
<td>.892</td>
</tr>
<tr>
<td>College Culture</td>
<td>6</td>
<td>.750</td>
</tr>
<tr>
<td>College Effectiveness</td>
<td>7</td>
<td>.774</td>
</tr>
</tbody>
</table>

Table No 2 illustrates that Cronbach Alpha of Decision-making Inventory in the main study was 0.766 which clearly indicates that used inventory is quite reliable. Moreover, the independent variable i.e. principal’s commitment in the research model is reliable because its Cronbach Alpha was 0.736 which is quite good. The dependent variable i.e. principal’s power in the research model is reliable because its Cronbach Alpha was 0.892 which is quite good. The dependent variable i.e. college culture in the research model is very reliable because its Cronbach Alpha was 0.750 which is very good and the dependent variable i.e. college effectiveness in the research model is very reliable because its Cronbach Alpha was 0.774 which is quite good.

4.3 Common Method Variance Bias (CMVB)
The result of Harman’s single factor test reveals that one single factor in this study accounted for only 19.992% of the total variance which is less than 50% threshold value. Then it is concluded that the data that has been collected for analysis in which there is no Common Method Variance Bias (CMVB) issue with the data set. It indicates that the researcher can proceed for further data analysis.

4.4 Exploratory Factor Analysis (EFA)
EFA technique was used to ensure the validity of the decision-making inventory.

Table3
KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>.784</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square 3694.957</td>
</tr>
<tr>
<td></td>
<td>df 136</td>
</tr>
<tr>
<td></td>
<td>Sig. .000</td>
</tr>
</tbody>
</table>

Table 3 shows that sample adequacy is quite good as the benchmark for KMO should be > 0.5 whereas the value of KMO = 0.784 and Bartlett’s Test is excellent as Sig. value is < 0.05 which is Sig. value = 0.000. It indicates that the researcher can proceed for further analysis.
Table 4
Principals’ Decision-Making Practices at Public Degree Colleges Sindh: Teachers’ Perceptions

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
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<tr>
<td>College Effectiveness (CE6)</td>
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<td>.803</td>
<td></td>
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<td>College Effectiveness (CE7)</td>
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<td>.750</td>
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<td>College Effectiveness (CE5)</td>
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<td>College Culture (CC6)</td>
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<td></td>
<td></td>
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<tr>
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<td>.692</td>
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<tr>
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<tr>
<td>% of variance explained</td>
<td></td>
<td>17.711</td>
<td>14.417</td>
<td>13.667</td>
<td>13.663</td>
</tr>
<tr>
<td>Cumulative % of variance explained</td>
<td></td>
<td>17.711</td>
<td>32.128</td>
<td>45.795</td>
<td>59.459</td>
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</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Table 4 illustrates that there are 4 factors and the surrogate items which include CE6 = .803, CC5 = .799, P3 = .905, and C2 = .799. All the items values are quite good as they are > 0.60. From the Rotated Component Matrix (RCM), it is concluded that the researcher ensured the convergent validity because all the items are loaded with their respective factors. Secondly, the construct validity was ensured in a way that all the loaded items are greater than .60, which is a very strict criterion for the researcher to meet for further analysis. Finally, the discriminant validity was also ensured that there is not any single item which is loaded into any other different factor which means that there is no cross loading in RCM table. Therefore, the decision-making inventory is quite valid and authentic to proceed with further analysis, which means the researcher can proceed for CFA model.

### 4.5 Hypotheses Testing

In the light of model fit indices (See Table 5) and standardized regression weights, which are quite good because all are greater than .6 for the CFA model (See Figure No 2). Therefore, the CFA model is quite fit for testing the hypotheses. Structured Equation Modeling (SEM) was performed to test the hypotheses (See Table 6).
Figure 2 CFA Model

Structural Equation Modeling (SEM) Results for hypotheses testing

Table No 6
Regression Weights: (Group number 1 - Default model)

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>&lt;--- Commitment</td>
<td>.800</td>
<td>.083</td>
<td>9.612</td>
<td>***  Supported</td>
</tr>
<tr>
<td>College Culture</td>
<td>&lt;--- Power</td>
<td>.103</td>
<td>.049</td>
<td>2.103</td>
<td>.035  Supported</td>
</tr>
<tr>
<td>College Effectiveness</td>
<td>&lt;--- College Culture</td>
<td>.101</td>
<td>.037</td>
<td>2.706</td>
<td>.007  Supported</td>
</tr>
</tbody>
</table>

Table No. 6 shows that the above three null hypotheses were rejected because the p. values of H01, H02 and H03 are .000, .035 and .007 respectively. As a result, the H1, H2 and H3 were accepted. The alternate hypotheses are given as under which are statistically supported or accepted.

- H1: There is a statistically significant impact of principals’ commitment on principals’ power at the public degree colleges of Sindh.
- H2: There is a statistically significant impact of principals’ power on college culture at the public degree colleges of Sindh.
- H3: There is a statistically significant impact of college culture on college effectiveness at the public degree colleges of Sindh.
5. Discussion
The overall results of Structural Equation Modeling (SEM) reveal that the principals’ commitment has positive significant impact on power, as p. value is .000, which indicates that commitment clearly predicts the power of the principal at public degree colleges of Sindh. Secondly, statistical result shows that principals’ power has a positive significant impact on college culture, as p. value is .035, which reflects that principals’ power clearly predicts the college culture at public degree colleges of Sindh. Thirdly, college culture has a positive significant impact on college effectiveness, as p. value is .007, which clearly reflects that college culture predicts the college effectiveness at public degree colleges of Sindh.

The findings of this study are in consistent with the previous studies such that in Turkey researchers have found a strong relationship between principals’ power basis and teachers’ organizational commitment (Sezgin & Kosar, 2010). Commitment moves teachers or principals towards the fulfillment of objectives. When principal is committed, he uses his power to put the institution on the path of success. According to Kaplan and Owings (2013), school culture consists of values, norms, shared coordination and activities of the members. Culture is bond that holds together whole school unit. Strong culture is not only guiding force for management but it also facilitates and compensates the members (AbTalib, Don, Daud, & Raman, 2015). In the words of Nor and Roslan (2009) school and college culture ensure positive relationship, sense of ownership, and self-concept among teachers. Principals play their significant role in shaping school culture that students may feel self-worth and confident.

Research studies have identified the relationship between school or college culture and School/college effectiveness. It has also been found that organizational culture has brought significant and positive effect on subordinates/workers and ensured the satisfactory results. This is also true in the world of education where school culture may increase performance of teachers on the one hand and student’s achievement on the other (Badri et al., 2014). One of the research studies discovered difference between students output of two “sister” schools. The reason was leadership approaches of heads of schools because school principals play their roles in shaping and maintaining different cultures. It was found that school culture and effectiveness is directly related to school leadership (Bhengu & Mthembu, 2014). In the light of the research studies, it can be concluded that there is a strong relationship between school/college culture and effectiveness. Furthermore, school culture does not have only direct influence on effectiveness but also through teachers’ performance on students’ achievements (Gamoran, Secada & Marrett, 2000; Stearns, Banerjee, Mickelson & Moller, 2014).

6. Conclusion
This study examined the impact of principals’ commitment on power, college culture and college effectiveness in participative decision-making practices at public degree colleges of Sindh. It was statistically established that the principals’ commitment plays a pivotal role in predicting the power, power influences culture and culture influences effectiveness in participative decision-making practices in public degree colleges of Sindh.

Based on the findings of this study, the following main conclusions could be drawn concerning decision-making practices of principals in public degree colleges of Sindh. The results were very clear that principals do have the realization that participatory decision-making is important and could have far-reaching effects for the organization as well as employees. They believe that it is in the interest of both the organization and the employees to follow and practice participatory decision-making process. Despite the fact, the principals do not practice participatory decision making very often because of inherent internal cultural norms of distrust, the propensity of non-cooperation, culture of unhealthy and undue pressure, lack of sense of responsibility and unwillingness on the part of subordinates to participate in decision-making process.

7. Theoretical Implications
This study contributes in providing practical implications for different stakeholders to address the issues.
- Participative decision-making cultivates component of self-worth in subordinates since they feel honor and respect when their ideas are given importance in decisions.
- The administrative higher authorities make sure that Principals are free from any undue pressure from different quarters. They must be supported in making merit-based decisions. At the same time, however, they should be convinced to adopt participative decision-making culture in the organization and take all the subordinates on board to achieve the goals of the organization.
- The results have clear implications for professional development and training providers to develop the capacity of principals in developing a team spirit in the organization and take subordinates on board in the decision-making process. They should be professionally trained to develop a culture of participatory decision-making and management in the organization.

8. Limitations and Areas For Future Research
Interesting results of this study provide many opportunities and space for further research to explore further about this issue.

- This study may be replicated in other parts of the country and the results may be compared with the results of this study.
- This study should be expanded to a larger sample of respondents drawn from the entire country to ensure wider generalization of the findings. The same inventories can be employed for data collection to explore the issue related to decision-making practices.
- The study is limited to the perceptions or views of the teachers to achieve the objectivity for generalization of the results. However, the mediation and moderation is not the scope of this study.

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Impact of Passive Leadership on Organizational Citizenship Behavior and Turnover Intentions; Mediating Effect of Organizational Interpersonal Trust

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ARTICLE DETAILS

ABSTRACT

This study investigates the impact of passive leadership on organizational citizenship behavior and turnover intentions with the mediating effect of organizational interpersonal trust. Data has been collected from a sample of 180 working at managerial levels in public and private sector universities based in Islamabad. Findings of the current study confirms that passive leadership is negatively associated with organizational citizenship behavior and employee turnover intentions and the mediating role of organizational interpersonal trust confirms the partial mediation between these relationships. The study provided with new insights into the body of knowledge and also provided with practical implications. Limitations of the current study along with the future directions of research also discussed at the end.

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1. Introduction

Leadership can be represented as an exceptional resource that enables an organization to perform multi-lateral role and to deliver outstanding performance (Viitala, Kultalahti, & Kangas 2017). Passive leadership style or management by exception (passive) can be characterized as hesitant, uncertain and reluctant to take organizational decisional, being absent when needed to take important decision. Passive leadership, laissez faire leadership, passive management by exception- passive style has found to be ineffective and poor style of leadership (Lee. 2018).

Passive leadership can be termed as avoidant leaders, management by exception (passive) generally provides the group members with the complete freedom to make decision and to complete the work in whatever they see fit to perform. Passive leaders possess passive behavior, acquire less information,
remain reluctant to share information and do not truly involve in organizational decision making, takes corrective action to prevent mistakes which may result in employee distrust, poor management, engagement into some negative outcomes like bad perception for seeking organization justice (Adeel, Khan, Zafar & Rizvi 2018). Moreover, it has been found that those leaders who engaged in transformational leadership are consistent in their performance and productivity related issues, providing feedback and encouragement, building strong network and maintain effective organizational citizenship behavior. while leaders who seems to be engaged in management by exception and passive leadership might be consistent and find to be engaged in harassment related issues, keeping intentions of quitting and leaving their job and organization (Frooman, Mendelson & Kevin Murphy, 2012).

The full range of leadership was developed by (Bass 1985). Cole, Theories of leadership describe range of leadership styles such as transformational, transactional, laissez faire, authentic, servant leadership that directly affects the projects and organizational performance (Raziq, Borini, Malik, Ahmad, Shabaz. 2018).

2. Literature Review

2.1 Passive Leadership and Organizational Citizenship Behavior

Passive leadership, laissez faire leadership, passive management by exception- passive style has been found to be ineffective and poor style of leadership (Lee. 2018). Passive leaders avoid intellectual simulation that can be achieved by encouraging employees to participate, performing creative behavior; promote morally uplifting values (Frooman, Mendelson & Kevin Murphy, 2012). Organizational citizenship can be characterized as voluntary practices that tap to result in improved functioning of organization’s tasks and duties (Malik, Saleem, & Naeem 2016). While employees engaged in passive or avoidant style, laissez faire leadership and management by exception-passive exhibited extended extent, generally fail to intervene until problem become severe or serious, abdicate responsibility, absent when needed, or fail to follow upon request (Nguni, Slegeers & Denessen, 2006). Laissez faire is non-leadership that has almost no influence over the groups and makes difficult to distinguish the leaders from the followers (Holtz & Hu 2017). It is expected that laisses faire or passive leadership style leads an employee to little modification in OCB level of subordinates. Hence it has been hypothesized that

H1; Passive leadership has negative impact on organizational citizenship behavior.

2.2 Passive Leadership and Turnover Intentions

Passive leadership avoids supervisory responsibility along with decision making that always be an inappropriate way to lead. Empirical evidence suggests the facets of effective and inactive behavior are often to be referred as passive avoidant leadership (Holtz et al. 2017). Passive avoidant leadership that often termed as management by exception (passive) takes corrective action and devised strategies only when problem become retrospective and significant, reluctant to express his view and gratitude on important and controversial issues but there might be the cases where passive leader can be considered as transformational leader that aim to let followers learn from making mistakes (Horwitz, Horwitz, Daram et al. 2008). The word turnover intentions describe as one’s intentions and propensity to quit or leave an organization (Long, Thean, Ismail, & Jusoh 2012). Turnover can be classified as voluntary and non-voluntary, functional and dysfunctional that impact to make decision of employee whether to stay or leave the organization. Puni, Agyemang, & Asamoah, (2016) concludes that employee or any subordinate under the laissez faire or passive leadership style will have less turnover intentions,hence it has been conceptualized

H2; Passive leadership has negative impact on turnover intention.

2.3 Passive Leaders and Interpersonal Organizational Trust

Passive leadership has unattractive characteristics towards the trust building process and interpersonal organizational trust. Passive leader can be characterized as non-leadership and absence of leadership with a certain behavior that involves procrastination shown by an individual who has got power in his position.
“Interpersonal trust can be termed as the willingness of a party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor that other part.” (Guinot, Chiva & Roca-Puig 2014) While distrust can be termed as opposite of trust, various academic scholars considered distrust to be as an exception that others will not act or work in the best interest of other party, by engaging and indulging other person in potentially injurious behavior (Guinot, Chiva & Roca-Puig 2014). Interpersonal trust is a multi-dimensional construct of cognition-based and affect based trust (Lewis and Weigert, 1985; McAllister, 1985). Hassan, Toylan, Semerciöz, & Aksel (2012) claimed that interpersonal trust as the degree to which one is confident and willing to act upon the actions, words and decisions of others. From above discussion it can be concluded that passive leadership on part of leadership will lower up the sense of trust building process or upon interpersonal organizational trust

H3. Passive leadership is negatively associated with interpersonal organizational trust.

2.4 Organizational Interpersonal Trust and Organizational Citizenship Behavior
Trust can be expressed as set of beliefs or expectations, about choice, willingness and beliefs of having trusting behavior Singh, & Srivastava (2009). Worked on following five types of citizenship behaviors included in the study were civic virtue, courtesy, sportsmanship, altruism and conscientiousness (Podsakoff, MacKenzie, Moorman, & Fetter 1990). Den Hartog, Schippers, & Koopman (2002) examined subordinate trust as a sort of mediating variable in organizational citizenship behavior and transformational leadership. A great nature of theoretical work has shown evidence that organization trust is a significant driver of OCB (Yoon, Jang & Lee 2016). Organizational citizenship behavior is the discretionary behavior of an employee that is not to be on the part of a workers and employee formal job requirement but nevertheless promotion the effective functioning of the job (Appelbaum, Bartolomucci, Beaumier, Boulanger, Corrigan, Dore, Girad & Serroni 2004). Studies have shown strong and positive association between OCB and interpersonal trust. Singh, & Srivastava (2009) found that subordinates perception of their “leaders” trust in them influenced performance and OCB. A great nature of theoretical work has shown evidence that organization trust is a significant driver of organizational citizenship behavior (Yoon, Jang & Lee 2016). Hence, based upon the above discussion it has been hypothesized that

H4: Organizational interpersonal trust is significantly and positively related with organizational citizenship behavior.

2.5 Organizational Interpersonal Trust and Turnover Intention
Turnover has received significant attention from academia and practitioners (Dubey, Gunasekaran, Altay, Childe, & Papadopoulos 2016). Turnover refers to those employees who are considering and thinking to quit a job (Long, Thean, Ismail & Jusoh 2012). Turnover from the job for such kind of employees require adequate higher cost to retrain, reskill, and hidden cost in completing different tasks and projects with in a group (Dubey et al. 2016). There are various factors that constitute to frame and impacting employee turnover as personal factors, work-related factors and external factors. When an employee feels safe, sound and morally protected about his job than fell highly satisfied and secured about the job (Balkan, Serin, & Soran 2014). Hence, based on above considerations it has been hypothesized that

H5: Organizational interpersonal trust is negatively related with employee turnover intentions.

2.6 Passive Leadership, Organizational Interpersonal Trust and Organizational Citizenship Behavior
Management by exception (passive) comes under the construct of transactional leadership is a situation in which leader waits passively until deviation occurs from the set standards. Errors, mistakes and omissions are to be controlled when their severity become highly offensive only then make the corrections (Mesu, Riemsdijk & Sanders 2009). Passive leadership is a sort of least positive style of leadership and contrast a
negative effect on organizational citizenship behavior. Organizational leadership can be viewed as employee’s disbursing positive behavior in response to leader’s positive behavior and attitude towards justice, job satisfaction, work environment and positive feedback (Spence, Ferris, Brown & Heller 2011). In accordance to the social exchange theory an employee feels pleased and delighted about developing an exchange and reciprocate relationship by voluntary giving benefits and then expecting returns in future (Compeer, Smolders, & De Kok 2005). Literature suggest that trust can be developed by perceive organizational processes and outcomes to be fair, since trust must be present to foster OCB and to engage the employees actively in voluntary behavior (Appelbaum et al., 2014). Hence based on the supportiveness of above theory it can be hypothesized that

H6; Significant negative relationship between passive leadership and OCB is mediated by organizational interpersonal trust.

2.7 Passive Leadership, Organizational Interpersonal Trust and Turnover Intentions

Turnover intentions are defined as the cessation of membership in an organization by which an individual who receive monetary compensation by an organization (Watrous, Huffman, & Pritchard, 2006). Researchers typically identify two forms of negative turnover which is to be believed as voluntary and involuntary. Voluntary turnover is the form of turnover intentions which begin by the employee i.e. an employee quitting the organization whereas involuntary turnover is initiated by the organization i.e. an employee is “laid off” due to downsizing (Balkan, Serin, & Soran, 2014). Transactional leadership where an employee strongly focusses on contingent rewards and passive management by exception with employee turnover intention’s in large financial and multinational organizations (Alzubi, 2018). Employees who trust each other are likely to be more willing to synchronize, working together constructively and help each other. Mbah, & Ikemefuna (2011) suggested that poor leadership style as passive leadership caused reason that why employees resort to portraying a deviant behavior and why employees leave their jobs. The link between passive leadership and turnover intentions can be studied by justice theory which explains that if employees are satisfied, trusted and perceive the procedures and processes to be fair then they will remain or stay productive and connected with their organization. Therefore, on the basis of all above discussion it can be hypothesized that,

H7; Significant negative relationship between passive leadership and turnover intentions is mediated by organizational interpersonal trust.

Research Model

Figure: 01

3. Research Methodology

3.1 Sampling Size & Sampling Technique

Simple random sampling technique was applied, a total of 330 questionnaires were distributed out of which 180 fully filled questionnaires were received back from the respondents of public and private sector universities based in Islamabad.

3.2 Measures and Scales Used
All study variables were measured in a uniform way with using a 5 points Likert scale whereas 1 represented strongly disagree, 2 represented disagree, 3 represented neither agree/neither disagree, 4 represented agree whereas 5 represented strongly agree.

### 3.3 Passive Leadership
Passive leadership of participants was carried out and measured using a 7-items scale developed by Hartog, Muijen, & Koopman (1997). Sample items included were “As long as work meets minimal standards, he/she avoids trying to make improvements”. The Cronbach alpha reliability of the 7 scale items was .772.

### 3.4 Interpersonal Trust
Organizational Interpersonal trust was measured using 6 items scale developed by Hill, Chenevert, & Poitras, (2015). Sample items included were “I think my colleagues are worthy of trust”. The Cronbach alpha reliability of the 6 scale items was .825.

### 3.5 Organizational Citizenship Behavior
A 16 items scale was adopted from Lee, K., & Allen, N. J. (2002). was used to measure organizational citizenship behavior. Sample items included “Help others who have been absent”. The Cronbach alpha reliability of the 16 scale items was .900

### 3.6 Turnover intentions
Turnover intentions were measured using a 4 items scale adopted from Wu, Lin, Hsu, & Yeh (2009) that was developed by Salanova, Agut, & Peiró (2005). Sample items included “I often consider leaving my organization”. The Cronbach alpha reliability of the 4 scale items was .823

### Table 01: Correlation Analysis

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<th>4</th>
<th>5</th>
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<td>.016</td>
<td>-.192*</td>
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<tr>
<td>OIT</td>
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<td>.066</td>
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<td>.021</td>
<td>.070</td>
<td>(.825)</td>
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<td>.126</td>
<td>.218**</td>
<td>-.075</td>
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<td>.042</td>
<td>.149*</td>
<td>.449**</td>
<td>(.900)</td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>.021</td>
<td>.070</td>
<td>.035</td>
<td>.141</td>
<td>.064</td>
<td>.205*</td>
<td>.116</td>
<td>-.242**</td>
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<td>.162*</td>
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</table>

N = 180. The reliabilities of variables are given in parentheses. **correlation is significant at the 0.01 level (2-tailed).
Hypothesis of first variable was assumed to be negative and this was found to be in line with H3 as the passive leadership ($r = .070, p < 0.01$) has very weak correlation with organizational interpersonal trust while the value of scale reliability was found to be .772 considers to be as good reliability. H1 was assumed to be negative and this was found to be contradictory as the passive leadership ($r = .149, p < 0.01$) has significant and positive correlation with organizational citizenship behavior. Turnover intentions have assumed to have a negative relationship with passive leadership in H2 and this provide preliminary support of hypothesis as ($r = .116, p < 0.01$). Organizational interpersonal trust has positive correlation with organizational citizenship behavior as the organizational interpersonal trust has positive correlation ($r = .449**, p < 0.01$) and this provide initial support of H4. The scale reliability ($\alpha$) of organizational interpersonal trust found to be .825. Organizational interpersonal trust has assumed to be negative relationship with turnover intention, this found to be in line with H5 as the organizational interpersonal trust ($r = -.242**, p < 0.01$) has negative correlation.

4. Regression Analysis

The results indicate that passive leadership is significantly related to organizational citizenship behavior, where $p = 0.46$ and ($\beta =.149, p >.001$), thus hypothesis 1 is supported. Organizational interpersonal trust was also found to be significant predictor of organizational citizenship behavior with approximately 20.2 percent of variance in organizational citizenship behavior was accounted by organizational interpersonal trust with $p = .000$ and ($\beta =.449, p >.001$), thus hypothesis 4 is accepted. Passive leadership wasn’t found to be significant predictor of organizational interpersonal trust as the sig-value is marginally beyond .05 with ($\beta =.370, p < .001$) $\beta$ also found to be insufficient, thus hypothesis 3 is supported. For the path of organizational interpersonal trust with turnover intentions results are shown in table (vii). Further, organizational interpersonal trust has found to be significant forecaster of turnover intentions with approximately about 59 percent of variance in turnover intention was accounted by organizational interpersonal trust as the $p = 0.01$ and ($\beta = -2.42, p >.001$), Hence hypothesis 5 is supported. Passive leadership found to be significant predictor of turnover intention as the $p = .120$ and ($\beta = .116 p <.001$), Hence hypothesis 2 is not supported.

Table 02: Results of Simple Linear Regression Analysis for H1 and H4

<table>
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<th>R2</th>
<th>$\Delta$R2</th>
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<th>Sig</th>
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<td>.049</td>
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<td>.202</td>
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<td>.022</td>
<td>.022</td>
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Table 03: Results of Simple Linear Regression Analysis for H3

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<th>Step 1</th>
<th>$\beta$</th>
<th>R2</th>
<th>$\Delta$R2</th>
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<th>t</th>
<th>Sig</th>
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<td>Step 2</td>
<td></td>
<td>3.70</td>
<td>.005</td>
<td>.005</td>
<td>.888</td>
<td>.942</td>
</tr>
</tbody>
</table>

Table 04: Results of Simple Linear Regression Analysis for H2 and H5
### Table 05: Results of Mediated Linear Regression Analysis for H6

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>( \beta )</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
<th>( F )</th>
<th>( t )</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Controls</td>
<td>0.64</td>
<td>0.004</td>
<td>0.004</td>
<td>0.721</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>OIT</td>
<td>-0.242</td>
<td>0.059</td>
<td>0.059</td>
<td>11.16</td>
<td>-3.334</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>Passive leadership</td>
<td>0.116</td>
<td>0.014</td>
<td>0.014</td>
<td>2.438</td>
<td>1.561</td>
<td>0.120</td>
</tr>
</tbody>
</table>

Control variables were entered and controlled in step 1 of mediated regression analysis. For step 2 mediating variables was entered and in step 3 predictor variable or criterion variable was entered that provide firm evidence that organizational interpersonal trust mediates the relationship between passive leadership and organizational citizenship behavior where \((\beta = 0.322, \ p > 0.001, \ \Delta R^2 = 0.014, \ p > 0.001)\) and there is full mediation exist, hence H6 is supported. Similarly, the mediated effect between passive leadership and turnover intention was found to be insignificant with \((\beta = 0.119, \ p < 0.001, \ \Delta R^2 = 0.014, \ p < 0.001)\) and there is partial mediation and H7 is not supported.

### Table 06: Results of Mediated Regression Analysis for H7

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>( \beta )</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
<th>( F )</th>
<th>( t )</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Controls</td>
<td>0.049</td>
<td>0.049</td>
<td>4.514</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>OIT</td>
<td>0.414</td>
<td>0.216</td>
<td>0.168</td>
<td>16.204</td>
<td>6.141</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>Passive leadership</td>
<td>0.322</td>
<td>0.231</td>
<td>0.014</td>
<td>13.119</td>
<td>1.801</td>
<td>0.020</td>
</tr>
</tbody>
</table>

### 5. Discussion and Findings

Results of the current study indicates that passive leadership and organizational citizenship behavior are significantly related to each other and hypothesis 1 was found to be supported but very weak relationship was between passive and organizational interpersonal trust. The results of this study are consistent with (Malik, Saleem & Naeem 2016) where findings of study suggest that passive leadership style causes a permanent state of tension, dissatisfaction, conflict and decreased interest in subordinate. The result of our 2nd hypothesis was found to be supported, and the results of this study are in line with the study of (Puni, Agyemang & Asamoah 2016). The results of passive leadership and organizational interpersonal trust for this hypothesis found to be supported and was linked with the previous study of (Adeel, Khan, Zafar, & Rizvi, 2018) which concluded that passive leadership is negatively associated with affect based trust and claimed that abusive behavior of supervisor may result in negative experience which can lower the affective commitment towards job and other psychological problems. Likewise, the results of our 4th hypothesis for organizational interpersonal trust and organizational citizenship behavior found to be
supported and the results of this study are in support of (Podsakoff, MacKenzie, Moorman, & Fetter 1990) in trust was conceptualized as faith and loyalty with the leader. Similarly, the results of 5th hypothesis, organizational interpersonal trust and turnover intention found to be insignificant, passive leadership influence personnel intention to leave or stay in the organization.

Similarly, the results of 6th hypothesis of passive leadership and organizational citizenship behavior through organizational interpersonal trust found to be supported as the organizational interpersonal trust is fully mediating the relationship between passive leadership and organizational interpersonal trust and these results are consistent with the study of (Compeer, Smolders, & De Kok, 2005). Moreover, the results of 7th hypothesis of passive leadership and turnover intentions through organizational interpersonal trust found to be insignificant but organizational interpersonal trust is partially mediating the relationship between passive leadership and turnover intentions.

6. Limitations and Direction for Future Research
For the current study data was cross sectional and collected from managerial level employees and to assure the generalizability of findings and results for future research, it is suggested to undertake larger and diversified pool of employees representing different public and private sector organizations. Future researchers are directed to explore the relationship of passive leadership on organizational commitment to change job satisfaction, psychological change, organizational justice, varied dimensions of trust and performance of employees by using bootstrapping, smart PLS, network and path coefficients with structural equation modeling using AMOS.

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Discursive Practices and Narrative Building in Post 9/11 Among Young American Adults

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ABSTRACT

The changing undercurrents of the political situation of the world, in the aftermath of 9/11, seem to have affected the notion of the ‘other’ in the social, cultural and most expressively the discourse of literature. The power structures embedded in these discourses have influenced the social practices in the portrayal of the ‘other’. The construction of the ‘other’ is epitomized through writings illustrating biases that reveal themselves in ostracizing communities and ideologies. The socio-political implications of the identity in post 9/11 require further investigation. The current study investigates the portrayal of the ‘other’ delineated in American young adults. The theoretical perspectives of Siegfried Jager and Teun van Dijk (2001) in the domain of Critical Discourse Analysis (CDA) were employed to analyze the data. The results of the investigation substantiated that the ‘other’ was redefined as an entity loaded with explicit negative implications and depicted by adding a prefix to the ‘other’ creating a ‘Muslim other’. The paper has implications for socio-political, education and cultural setting and practices in society.

1. Introduction

The present study aims at investigating the utilization of discursive practices by texts to create and legitimize identities. The basic assumption is that by the employment of the discursive practices, texts written for young adults after 9/11 follow the principles of ‘othering’ to represent a ‘self’ and an ‘other’ by establishing positive and negative identity features. Post 9/11 literature provides a site to ascertain the changes if any regarding representation of ‘self’ and ‘other’.

Jensen S. Q. (2011) opines that identities are social constructs and social situations provide a locus for the construction of identities. A theoretical assumption of the process of formation of identity helps us understand the phenomenon of ‘othering’. The concept of othing draws its principles from various theoretical approaches. The most significant being the understanding of self, put forward by Hegel which establishes a dialectic master-slave relationship between self and other. Said (1978) explains that othing is exclusion of a person or a group not fitting in the norm of the group which is a version of the Self.
Regarding the expression of identity, Vanheule and Verhaeghe (2009) quote Jacques Lacan a prominent psychoanalyst, opined that identity is constituted by language which marks a certain identity domain.

Versluys (2007) argues that language constructs new identities making it imperative to identify the resources which a language utilizes to construct an identity, the source, creating that identity and the purpose is questions worth considering. Dam, Holmgreen and Strunk (2006) explain that the uneven power balance between the source creating the identity and the audience is essential in achieving the desired change in the audience perceptions and in creating an identity. Hence the idea of Wodak and Myer (2007) holds true that language does not possess inherent authority, it is the user who gives it power. Thus, it becomes apparent that a change in social conditions can recreate identities. Mansoor (2012) posits that 9/11 changed not only the global socio-political scenario but also the concept of identity by creating “terrorists” and “us”.

Lampert (2007) opines that events happening around us affect our perceptions therefore, it is important to investigate the texts which narrate events like 9/11 to understand their assumptions of ‘self’ and ‘other’. Hence, exploring the Young Adult American novel written as the outcome of 9/11 offers a site to examine the emerging identities.

2. Research Methodology
This study investigates the phenomenon of identity construction by a text and its socio-economic effects. Critical Discourse Analysis provides many approaches to explore the expression of unequal power relations in social discourses and the resultant prejudices (Meyer and Wodak, 2001).

Griffin (2007) opines that CDA endeavors to interpret the discourses shaped by powerful socio-political institutions like administrations and regimes to paint a specific reality. Griffin (2005) emphasizes how CDA through the utilization of tools establishes a correlation between language and social practices. The researcher is able to determine how a particular reality is constructed by utilizing language. Wodak and Meyer (2001) describe that for textual analysis, CDA depends on linguistic categories. The emerging patterns of these categories help in comprehending the meaning being conveyed. The current study investigates a text and attempts to decipher the meaning being created. The exploration required an initial phase of sorting the content and then a linguistic examination was carried out. Identification of ‘The Main Categories’ provided the data. These categories were informed by the approach of Seigfried Jagar and Teun van Dijk (2001). The Main Categories included:

2.1 Rhetorical Means
Hodges (2001) elaborates how metaphors and similes act as markers to describe an event or a phenomenon in a manner to empower a narrative to influence the response of an audience. Lakoff and Johnson (1980) opine that these linguistic devices allow the user to construct an identity. Chilton and Schaffner (2002) highlight that these linguistic tools help convey a systemized ideology by creating specific identities.

2.2 Ideological Statements
These statements express multiple meanings but the text suggests only one meaning as the sole meaning.

2.3 Lexicalization
Texts use lexical descriptors to highlight, blur, foreground or to ignore events, phenomena and attributes. (Hodges, 2011). Van Dijk (1995) elaborates that connotations of lexicons can construct positive and negative identities.

2.4 Identity Features
Mansoor (2012) explains that by assigning qualities to the entity being described, texts accomplish the creation of explicit identities.
2.5 Strategies of Analysis
The identification and recording of the above mentioned Main Categories led to the creation of the categories given by Teun van Dijk (2001) for studying the nature of identity being created.

2.6 Concretization
Van Dijk (2001) explains that texts provide details of events, feelings, or phenomena so that the reader can actually see, hear or feel the entity being described.

2.7 Topicalization
The frequent but mostly indirect reference to an act or happening brings it in the notice of the reader and avoids its blurring.

2.8 Sympathy
Van Dijk (2001) points out that texts create sympathy against the ‘other’ by mentioning the harmful act of the ‘other’ implying that ‘us’ is a victim of the ‘other’.

2.9 Identity Domains
Van Dijk (2001) is of the view that human, cultural and institutional traits of ‘us’ are shown to be positive and hence appreciated while the ‘other’ is shown to possess all negative traits in the said domains.

The current study will explore concretization, topicalization and sympathy as the domains of identity creation.

Figure 1: Construction of ‘self’ and ‘other’ by interaction of discursive strategies and creation of identity

3. Collection of Data
The categories of discursive strategies were identified from the text. The frequency of these strategies is given in table 1.

Table 1: Frequency of Main Categories

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Main Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rhetorical Means</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>Ideological Statements</td>
<td>36</td>
</tr>
<tr>
<td>3</td>
<td>Identity features</td>
<td>18</td>
</tr>
</tbody>
</table>
4. Results and Discussion
The interaction of the Main Categories constructed the Identity Domains which defined the nature of identities. The analysis leads to the creation of Identity Domains. The frequency of these categories is shown in the table 2 and 3.

**Table 2:** Discursive strategies, identity domains and their frequency for Positive ‘self’

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Discursive Strategy</th>
<th>Identity Domains</th>
<th>Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ideological Statements</td>
<td>Competence Positive Mindset Free Society ‘us’ and ‘them’ Sense of Responsibility All Encompassing Religion Total</td>
<td>2 16</td>
</tr>
<tr>
<td>2.</td>
<td>Lexicalization</td>
<td>Family Values High Ethical Standards Empathetic Society Total</td>
<td>7 19</td>
</tr>
<tr>
<td>3.</td>
<td>Rhetorical Means</td>
<td>High Moral Values</td>
<td>4</td>
</tr>
</tbody>
</table>

**Table 3:** Discursive strategies, identity domains and their frequency for Muslim ‘other’

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Discursive Strategy</th>
<th>Representational Strategy</th>
<th>Number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ideological Statement</td>
<td>Topicalization Sympathy Total</td>
<td>5 8 20</td>
</tr>
<tr>
<td>2.</td>
<td>Lexicalization</td>
<td>Topicalization Sympathy Total</td>
<td>6 9 20</td>
</tr>
<tr>
<td>3.</td>
<td>Rhetorical Means</td>
<td>Topicalization Sympathy Total</td>
<td>5 7 15</td>
</tr>
</tbody>
</table>

4.1 Positive Self Representation through Identity Building
4.1.1 Ideological Statement for Competent Authorities
After 9/11 attacks, Tess saw a clip on the TV prepared by the defense department describing how mountains could be blown up by bombs. “On the screen………...and watched for a while”. (p.39). The American government had established that the attacks were engineered by Muslims who were hiding in Afghanistan in caves. The government was showcasing to the public that it had weapons which could destroy the terrorists even if they hid in the deepest of caves. The text thus concretizes a very capable government of America having the ability to admonish the terrorists.

4.1.2 Ideological Statement for Positive Mindset

The American people have been depicted as spirited and lighthearted by nature. “At that time of the year every family in the United States is at Disney World.” (p.51). All families have been publicized to be affectionate towards children. The word “every” generalizes this attribute sending a message that children are considered very important in the American society. Rejoicing life paints a society which is at peace with its environment.

4.1.2 Ideological Statement for a Free Society

The American society has been depicted to be a free and open culture where no restrictions not even religious ones are imposed. People having a variety of beliefs live in harmony and attend various churches displaying tolerance for diversity in thinking. Before marrying David, Tess’s mother changed from Old Methodist Church to Episcopal Church, which David followed. Religious beliefs do not dictate the quality of relationship among individuals. It is only through consideration for others that such a harmonious state has been achieved. A clear signal has been given that the Americans are very accommodating.

There is direct critique on the derelictions of religious figures. Tess comments, “priests getting married…..better than altar boys…” (p.61). Also she adds, “…old people who have nothing better to do with their Sundays” (p.59). Tess conveys that attending the church had little importance. Nevertheless, Tess mentions “I used to go to the church a lot”. (p.60). Religious exploitation has been condemned by Tess when she mentions, “…Put your whole paycheck in the platter, bring clothes right off your kids back…”. “…how you can go to the Mass from one door and go out of the other…”. (p.62). Such unequivocal disapproval of faith is probable when contradictory views are appreciated and people have enlightened minds. This portrays a truly free American social set up.

4.1.3 Ideological Statement for Sense of Responsibility

Tess explains how her father valued relationship with his sisters and their children. Concretizing this concept, details are given when Tess mentions, “Dad spends a lot of time with his family…….he goes to every basketball game, wrestling or school play that one of them is in” (p.83). This shows the high degree of involvement of Tess’s dad in the lives of his nieces and nephews and how he reinforced their hard work. When Tess came to live with him, he changed his habit of getting up late because he had to take Tess to school. Tess’s dad is portrayed to be mindful of her education. “I want to be able to give you stuff” (p.98). So it becomes evident that he was aware of his responsibilities as a father.

4.1.4 Ideological Statement for All Encompassing Religion

Although Tess had earlier criticized Christianity she finds consolation in attending the Mass. “I have to admit……...Like a protective shield”.(p.65). She feels safe because of the company of her grandmother and father and the atmosphere in the church. Hence, the reader concludes that the social and religious systems entrenched in the American society are founded on good moral grounds. The church—a symbol of Christian religion instilling a sense of safety in Tess highlights positive doctrine on which Christianity is based. Tess describes the church as, “safe and beautiful” (p.65) which promotes genuineness of the Christian religion. Tess further adds, “The priest gave …….he was talking right to me.” (p.65). The Christian faith is depicted to be able to provide solutions to day to day life. This makes Christianity a genuine religion which provides spiritual supervision to its disciples.

4.1.5 Lexicalization for Family Values
Tess decided to live with her real father and leave her family. However, her concern was about her mother. The text creates an appreciable self-image of Tess by highlighting positive family tenets and concern for each other when she utters, “I was thinking about mom and how she was alone now. I felt by leaving, I was leaving her alone”. (p.55). A teenager experiencing extreme trauma is worried about her mother’s happiness does not leave any ambiguity in the thoughts of the reader but to acknowledge the existence of strong bonding in families. Tess does not want her mother to suffer loneliness and is visibly concerned about her mother’s emotional well-being. A durable family connection has been portrayed again when Tess describes her affection for her father and states, “…in whatever rusted -out chariot he was driving and rescue me…” (p.54). She is not concerned about the quality of vehicle her father possessed but just wanted to be with him.

4.1.6 Lexicalization for High Ethical Standards
The text utilizes lexicalization to show that Tess’s step father, David, possesses a progressive attitude. Tess describes “David’s all about efficiency both time and money.” (p.27). Likeable traits have been underlined portraying David to be a sensible and aware person who knows that to achieve success one must manage time and money. By explaining that personal growth was taken very seriously by David the text establishes him to be a person who strives for excellence and does not become complacent. This is highlighted by Tess’s utterance that he did not consider “relative performance” (p.28) as sufficient.

4.1.7 Lexicalization for an Empathetic Society
The text utilizes specific words to depict an American society in which people possessed empathy. Sharing the sorrows with the grieved families helped them cope with the suffering. Tess states, “Just like all people in school who write poetry on 9/11…..feeling is the same as real loss” (p.69). The empathetic feature of the society is being stressed upon by using the word “real”. The people who did not lose a loved in the wake of 9/11 provided support to those who were suffering the pain of losing a family member or friend.

4.1.8 Ideological Statement for Positive Identity Building
The strategy of using multilayered statements enables the text to construct diverse identities of the White Americans and the immigrants. The text depicts that White individuals had better manners and civility when matched with that of the immigrant population. Describing the refined and cultured White Americans in her neighborhood Tess explains “In our neighborhood you can sit outside……even in summer when everyone’s windows are open and not hear much of anything except a cricket or a car” (p.76). While describing immigrants living in her dad’s neighborhood she says, “In my Dads neighborhood you never see any stars plus with all the crime in the area they have put up a lot of streetlights in the parking of the malls.” (p.77). Her father’s neighborhood had a majority of immigrants and the explicit meaning of “you never see a star” points towards the haphazard construction of houses in which aesthetic aspects had been neglected and also this statement points out that the residents were criminals.

4.1.9 Lexicalization for Social Consciousness
The text explains how people hurried to donate blood for those who were injured as a result of 9/11 attack. “There are lines at the blood bank in New York five hours long, people desperate to open their veins” (p.176). The words “lines” and “five hour long” make the reader envision enthusiastic and courageous residents of New York donating their blood to save the injured.

4.1.10 Rhetorical Means for High Morality
The text employs rhetorical means to send the message that modesty is a strong pillar of the American society. Parents, like David, stressed on its importance and Tess was made to follow a decent dress code by David emphasizing that “anything that shows cleavage or belly button is illegal” (p.28). The selection of the word “illegal” depicts the importance being given to this aspect by David.
4.2 Muslim ‘other’

4.2.1 Ideological Statement for Topicalization
Narrating her story, Tess, mentions, “…what looked like any other September morning.” (p.5). Employing an apparent comparison the text points out a contrast conveying that the morning of 9th of September was not a usual morning of September and prepares the reader to discover the irregularity that defined ‘that’ morning of September from a usual morning of September. Hence, through an ideological statement the reader is made to discover the happening which made that September morning different from other September mornings. The text indicates “until those planes flew into the tallest buildings in the world.” incorporating events of 9/11 and substantiating that a specific entity had smashed their planes into the building and the devastation of the day of 9/11 was the result of this action of that entity. Thus the reader creates the certainty of 9/11 and also of the ‘other.’ The text has accomplished a successful construction of a Muslim ‘other’.

4.2.2 Ideological Statement for Concretization
Ideological statements help to construct the Muslim ‘other’ both at the collective and formal level as well as at an individual level also. “On the news they say that history is going to be separated by what happened before that day and what will happen after that day.” (p.5). The use of “the news” describes the formal level and the reference of “history” connects 9/11 to the shared perspective of the American populace. The text expounds how 9/11 has not only changed the present but the future also. 9/11 has become the locus from which the ‘after’ meaning the future will develop its uniqueness. Hence the reader can easily decipher that the American people and American government will now imagine the ‘before and ‘after’ in the light of 9/11. It also expresses that the newly emergent ‘after’ is permanent and its characteristics will be very unlike the previous ‘before’ entity. So the treatment of the ‘other/s’ will undergo change by the American citizens and by the American government. At the individual level the narrator of the story experiences an analogous state. The text explains in detail Zoe’s death “…you dying that day….‖ (p.5). The reader is told the ghastly sequence of events which apart from establishing the painful truth of the demise of Zoe also concretizes the authenticity of the assault on the World Trade Centre by a Muslim ‘other’.

4.2.3 Ideological Statement for Sympathy
By using metaphorical device a reference is made towards the deed of the Muslim ‘other’ describing it as “the beginning of the end of the world” (p.14). This permits the visualization of the gruesomeness of 9/11. The magnitude of devastation triggered by the Muslim ‘other’ was so large that it seemed as if the whole world was about to be annihilated. Muslim ‘other’ brought death to the people as they jumped from the Twin Towers to avoid being burnt by the fire. The text remarks, “People who fell out from the sky” (p.14) shows the merciless nature of Muslim ‘other’. This was such a horrifying way of killing people that even people who did not lose a family member had to ponder sadly on the lost ‘no one’ and would imagine in despair the desperateness inflicted upon those people who had no option but to embrace a wretched death.

4.2.4 Lexicalization for Topicalization
By using specific lexical choices the text brings to the surface the happenings of 9/11. Tess recollects the happenings of 9/11 and the death of her sister, Zoe in an implicit manner when she says, “Everything led to that day.” (p.32). Although it is an indirect way of referring to ‘someday’, the context provides an opportunity to foreground the atrocious day of 9/11 again in the mind of the reader .Thus “that day” is converted into a specific day -the day that witnessed the killing of many innocent human beings and most tragically Zoe, an infant who had not caused any harm to anyone.

4.2.4 Lexicalization for Concretization
The devastation due to the large number of deaths and damage to property as a result of the burning of Twin Towers has been described by means of words like “the Tower folded into the sidewalk” (p.170). The lexical choice of ‘folded” enables the reader to actually see the falling Towers. This lexical choice
helps to relate to the next step of such huge destruction -when huge buildings collapse, damage to life and assets can be envisioned to be enormous. There is no direct mention that the cause of the destruction of the Twin Towers was the act of Muslim terrorists it is inevitable for the reader to condemn the being that had brought an appalling end to life and property. The reader easily visualizes the complete destruction of Towers accompanied by many deaths.

4.2.5 Lexicalization for Sympathy
The text highlights that permanent loss has resulted due to the actions of Muslim ‘other’ as Tess utters, “You’ll still be dead and I’ll still be sad” (p.21). Tess describes that long hours of counseling by the psychiatrist are futile since the sorrow she and her family are enduring has no end. The text has used the adverb ‘still’ making the situation at that instant eternal.

4.2.6 Rhetorical Means for Topicalization
Metaphorical devices help in creating an undesirable image of the Muslim ‘other’. The gruesome act of the Muslim ‘other’ had affected the individual and the collective sphere of life. Tess states, “Something as small as you cannot make a sound in a world where buildings can come down” (p.170). The utterance conveys that 9/11 was a tormented act of the Muslim ‘other’ in which innocent lives like that of Zoe who was not capable of hurting anyone, were lost. The attacks of the Muslim ‘other’ were no doubt inhuman and brutal since they killed not just a few people but made a huge number of individuals lose their lives as when “buildings come down” those who are crushed by the rubble meet a painful death not to mention the agonizing death of those who were in the falling buildings. It is not difficult for the reader to conclude that the seemingly unimportant demise of Zoe had shaken the lives of four people so the number of people who had to bear the unbearable loss of loved ones would be so large. The text is thus able to represent both the physical and the psychological aspect of human life which were traumatized by the ruthlessness of the Muslim ‘other’.

4.2.7 Rhetorical Means for Concretization
By employing metaphorical devices the text highlights that the Muslim ‘other’ had brought pain and agony of the extent that it was not possible to measure the amount of grief and anguish. Tess points out, “Impossibly our mother’s face is ugly” (p.172) when her mother and Tess had gone to the hospital to enquire after Zoe who was unconscious after being hit by the car. Pain and distress had engulfed every place and everyone and had substituted loveliness and positivism in repulsiveness & pessimism.

4.2.8 Rhetorical Means for Sympathy
To describe the agony Tess’s family was undergoing due to the act of the Muslim ‘other’ metaphorical devices have been used. When Tess decides to leave her family and live with her real father, her mother states, “I can’t lose both of you. I can’t” (p.131). The Muslim ‘other’ had created a chain of events causing Tess’s mother to undergo the unbearable loss of Zoe’s death and Tess’s absence.

5. Socio-Economic Implications
The tragic incident of 9/11 had its inevitable socio-economic effect. America faced debt crisis after 9/11 and had to increase the defense budget (Amadeo, 2019). Report for Congress (2002) also states that American GDP growth during the first half of 2001, went down and contracted further during the 3rd quarter” (Makinen, 2002). Later, the Bush administration hurled a war in Afghanistan to find Osama Bin Laden, and a $29.3 billion budget was approved by the Congress as funding for the war. (Amadeo, 2019). Troops were sent to Iraq to find weapons of mass destruction and the pretext that President Sadam was helping Al-Qaida and another $36.7 billion were sanctioned. (Amadeo, 2019). The total cost of the war-on-terror is ‘$2.126 trillion’ (Amadeo, 2019) which is a big financial burden on America’s economy. 9/11 led to socio-economic consequences not only in America but worldwide, due to War-on-Terror. (Makinen, 2002).

6. Conclusion
This study explored the application of discursive practices and socio-economic implications highlighted in American fiction produced for young adults after 9/11. The application of Teun A. van Dijk’s approach of analyzing the role of the discursive practices was highlighted in the sample text constructing a specific identity for Americans and Muslims. The results signified that the sample texts revealed Muslims to possess negative streaks of human nature. They have been described as an ‘other’ who is violent and hates America. Such images are crafted by employing discursive strategies which have created Muslim ‘other’ as the most dangerous enemy of America. On the other hand, everything and anything American retains all appreciable aspects.

The conventions of Muslims ‘other’ and positive America are the recurrent themes which the text brings to the surface. The results are thought provoking and call for more exploration in this domain to reveal and ascertain the effects of such identity creation in fiction for young adults written in the background of 9/11 to develop a better realization of the world around us.

References

Impact of Microfinance on Social Mobility and Women Empowerment: The Case of South Punjab

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ARTICLE DETAILS

ABSTRACT

This purpose of this study was to examine the impact of microfinance on women empowerment and social mobility of women in the underprivileged region of Bahawalpur located in south Punjab. The study uses a sample of 772 female clients of two active microfinance institutions, NRSP and Apna bank. A comprehensive questionnaire was used for the survey and results were analyzed through smart PLS. Findings of results suggested that Microfinance is an efficient tool in facilitating social mobility and financial empowerment in women belonging to the region of Bahawalpur. The value and originality of the paper rests with its use of social mobility as a determinant of well-being and enhancement in standard of living.

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1. Introduction

Pakistan is a country struggling with the issue of poverty since its independence. Four out of every 10 people are living under poverty line. The Multidimensional Poverty Index result indicates 60.6% of Pakistan's population doesn't complete education, nearly four out of 10 individuals (39 percent) don't have any benefits and more than 38 percent of the populace lives in a one-room house. Around 33 percent of population does not have access to healthcare facilities (Rana, 2016). According to Mahmood, (2016) Pakistan’s 60% population is even unable to earn exactly $2/day, and more than 70% of these are women. This situation has more or less prevailed through last 70 years of independence. Pakistan has always performed poorly on the gender equality index and is lowest in the South Asian region.

As a patriarchal society and a developing country, Pakistan is facing issues in delivering the women their due rights as members of society. In name of protection and dependence on the head of family, women are deprived of their basic right to decide for themselves and be a productive part of the labor force. Social and economic empowerment for women is important not only for their own self but is also crucial for the development of the country. Keeping this objective under consideration, The Government of Pakistan has been a signatory to major projects like Millennium development goals, Sustainable...
development goals and Convention on the elimination of discrimination against women. These all projects share the same focus on empowering women economically and socially in every aspect of life.

Microfinance is one such vehicle that is assumed to have a significant impact on well-being (the state of being comfortable, healthy, educated and happy) of the users. The most important component of well-being is happiness, which may not directly be achieved through increased earnings but assurance of higher social bonding (Corpstake, 2007).

The stagnant poverty levels in Pakistan and low performance on happiness index could be attributed to lack of social mobility amongst classes. This study aims to examine the efficacy of microfinance as a tool in women empowerment and enhancement of social mobility towards achievement of the goals pertaining to overall well-being and gender equality.

2. Literature Review

2.1 The Microfinance Drive

Skoufias, Leite, and Narita (2013) describe that microfinance’s’ right borrowers are women as they are credit-constrained than men because they lack collateral, they are poor than men and also they are good at repaying their loans. Lending from formal institutions is associated with success in business and it would create employment opportunity for others.

Pakistan has performed poorly on the metrics of equal opportunity and egalitarian distribution of income. This inefficiency in resource allocation and gender bias discourages the female segment of society who wants to ascend their selves from one social position to another.

Microfinance, besides other tools for improving well-being in women, is a financial service that provides access to easy loans to entrepreneurs, especially females. The microfinance movement, started by Bangladesh gained popularity world over. In Pakistan it started in 1982 with the advent of Agha Khan Rural Support Program (AKRSP) and Orangi Pilot Project (OPP), as an activity targeted at empowering women from their homes and improving their overall contribution in economy (Pokhriyal, Rani, & Uniyal, 2014).

Microfinance institutions are set to achieve goals to help people have a standard living, to reduce poverty, to give them healthy lifestyle, women empowerment, social and economic development of women and gender equality. Group loans increase well-being of women because in group people are socially related to each other in case of difficulty they try to help each other and prevent themselves fail emotionally, socially and materially as well. But Microcredit is the one aspect to help women and society to cope up with misery so it will not be the enough measure for the sustainable development (Goey, 2012).

Women borrowers are more inclined to alleviating poverty for themselves and their families. In minimal cases they gave opportunity to other women or helped other women. On micro level this suggests that they work to empower themselves economically and in some cases they are contributing to economic growth. Household gets finances when they have somewhere to spend it, on easy repayment term and conditions. Mostly borrowers just use a microfinance loan to fuel up their consumption circle (Lock & Smith, 2016)

Korankye & Abada, (2017) state that microfinance benefits women economically as well as socially without bringing any harm to the institution of marriage. It has the potential to alleviate poverty especially in women, as has been witnessed by the microfinance experience in Bangladesh, Latin America and other developing countries. Mader (2013) and Hossain (2015) also suggest that microfinance institutions helps to reduce poverty, give empowerment to women and development of society.
Microfinance is being considered a powerful instrument for economic upheaval of the financially disadvantaged and its demand is increasing by the day. SECP has also acknowledged microfinance institute’s efforts and issued regulations for non-bank microfinance institutions.

National financial inclusion strategy (NFIS) has established policy for financial inclusion 2015-2020. The main drivers to achieve the policy are; promoting financial literacy, capacity building for institutions, non-branch banking and increasing number of microfinance bank points. This strategy is developed in best concern for all of stakeholders. So all the stakeholders will make combined effort and help to achieve NFIS 2015-2020 strategy (Social Performance Country Report, 2016).

Skoufias, Leite, and Narita (2013) describe that microfinance’s’ deserving borrowers are women as they are more credit-constrained than men because they lack collateral. The availability of these loans to women at the very least increase their participation in labor market and as well it increases their social status economically.

Women prefer to get a loan that is readily available to them and also has a greater impact on them. These types of loan help them to raise voice for their contribution results and for their bargaining power to influence households decision; decision related to healthcare facilities, education facilities available to their children. These loans also help them to free them up from loan sharks. Women serve as intermediaries between household expenditures and microfinance lenders. The bargaining power given to the women in return of socially honorable finances is more likely compensation to them. Those women who acquired the planned loans they invest it in their businesses and the outcome for this type of activity take time. That’s why planned loan may make women economically empowered but bargaining power in this case does not increases. (Garikipati, Agier, Guérin, & Szafarz, 2016).

2.2 Incidence of Microfinance, Economic Empowerment of Women and Social Mobility
Social mobility is a change in social position of individual or group on the basis of economic, occupational and political mobility (Sorokin, 1959). Social mobility is a concept that belongs to the field of sociology and sociologists study social mobility in terms of changing status of occupation. The economists on the other hand, focus on income and wealth to measure social mobility. Social mobility measures social fairness and is now perceived as measuring tool for equality of opportunity between unequal and differing social groups (Nunn, Johnson, Monro, Bickerstaffe, & Kelsey, 2007).

According to Aldridge (2001) ability of people is basis for social mobility. The ability either can be inherited or attained through socialization. Different studies have inferred different conclusion about the role that ability plays in social mobility. Aldridge (2001) further studies potential explanatory factors as barriers to social mobility which includes educational background of society members; poverty faced by members of society from childhood and its impact on their psychological behavior; family and upbringing techniques prevailing in families; capital access either it is social, cultural or financial; behaviors; opportunities; discrimination and procedures to —hoard opportunities in profession as well as in societal concerns.

Arku (2007) concluded that microfinance clients get economic and non-economic benefits from microfinance programs. The relationship of women empowerment and microfinance are interrelated because it alleviates poverty for poor families and make their status increased in society. Wellbeing is defined as living in peace when there is sustainable environment around poor. And wellbeing of poor can be enhanced by socio-economic empowerment that is facilitated by microfinance.

Self-help groups and Non-profit organizations both working together to give better results, by trying to empower poor. SHGs have made drastic change in income level of poor. It has helped them to increase their economic power by investing loan in productive activities which helped them in asset possession. It
has changed financial position of the poor households as well as helped to increase in social mobility. SHGs mainly helped women to increase their empowerment (Devi, 2009).

3. Research Objectives
The objective of this research is to study influence of microfinance on social mobility and financial empowerment of female borrowers. Microfinance makes society and its individual more flexible in terms of movement from one social status to another. The broader objective of the study is to evaluate the relationship of microfinance and gender equality in terms of agricultural land right to women, their education, healthcare facilities, their participation in economic activities. To effectively introduce social mobility in society, it is critical that we understand the causal relationship between lifting women out of poverty and women serving as powerful agents of social change.

The inferences derived from literature review are as follows:
- Microfinance services have significant relationship with economic empowerment of female entrepreneurs.
- Microfinance services have significant relationship with social mobility of female entrepreneurs.
- Microfinance program have a significant impact on socio-economic status of female entrepreneurs.

4. Materials and methods
The current study uses quantitative method for data collection and analysis for data adopting mono method for data collection and analysis of data. The respondents for the research were female entrepreneurs.

Data were collected from two microfinance banks operating in the region of South Punjab i-e National Rural Support Program (NRSP) bank and APNA microfinance bank. The respondents for the study were female entrepreneurs who were availing microfinance facilities residing in the area of Southern Punjab.

NRSP is a non-profit organization, started its activities in year 1991. It is largest microfinance program in Pakistan. It has its branches in 64 cities of Pakistan. It is giving loan to approximately 3.17 million of poor household. APNA microfinance bank is working as microfinance bank under 2001 ordinance. It has specialized its operations in a portfolio which consists of loan for agricultural sector, the poor and unprivileged, for women, and microloan for small businesses.

Data were obtained from all the field offices of both banks. NRSP bank has 7 field offices in the South Punjab region whereas APNA bank has started its operations in Bahawalpur recently hence, APNA bank has one office which serves Dilawar Colony and Islami colony Bahawalpur area and two offices in Multan region which cater to Multan and surrounding areas.

The questionnaire items used in this study is divided in two categories on nominal level and likert scale level. The descriptive part of questionnaire is of nominal scale. Whereas, the items used to study behaviors, attitudes and psychology. The likert scale level for this questionnair is 1) highly increased 2) increased 3) neither increased nor decreased 4) decreased 5) highly decreased. This scale was used to examine either microfinance has change anything for the borrowers. The descriptive part of the questionnaire collected to evaluate the women borrowers economic and social condition. This part comprises of age, education level, civil status, size of family, type of house, savings, income, spendings etc. And the second part of questionnaire is based on items which will examine the condition of female either it has become better or become poorer or has no impact.

5. Results and discussion
The instrument from this study has been adapted from Hossain (2015) and Durgappa (2014)
Table 5.1 Reliability analysis

<table>
<thead>
<tr>
<th>Measurement Scale</th>
<th>Cronbach’s Alpha</th>
<th>Results of reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfinance Program</td>
<td>0.86</td>
<td>Good</td>
</tr>
<tr>
<td>Social Mobility</td>
<td>0.798</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Economic empowerment</td>
<td>0.875</td>
<td>Good</td>
</tr>
</tbody>
</table>

The above result shows that reliability of instrument is above cut off value. Hence, the instrument is suitable and reliable for further analysis.

For validity of construct correlation analysis is used. Researches states that a correlation less than 0.85 shows that there is discriminant validity. Discriminant validity states that instrument constructs are not assessing the same information. If the correlation value exceeds 0.85 it would be depicts as the variable constructs are overlapping.

Table 5.2 Correlation analysis

<table>
<thead>
<tr>
<th></th>
<th>Economic</th>
<th>Socialmob</th>
<th>MFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socialmob</td>
<td>Pearson Correlation</td>
<td>.664**</td>
<td>1</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>MFI</td>
<td>Pearson Correlation</td>
<td>.850**</td>
<td>.681**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
</tbody>
</table>

Henseler, Hubona, & Ray (2016) suggests the criteria for validation is AVE should greater than 0.5. the AVE values in the test is greater than 0.5. Hence, two tests has suggested that instrument is valid.

Before analysis of regression results from PLS, outer loading of PLS Algorithm test results are evaluated. The less than 0.5 value for outer loading for any construct tells that there is error. This error will affect the results of regression. So, these error terms should be excluded from the model and then start interpreting the results of regression.

The outer loading for this study is shown below which has been colored red* by the PLS software will be excluded and again check if there is any remaining error in model.
Table 5.3 Outer Loadings before Adjustment for Error

<table>
<thead>
<tr>
<th></th>
<th>EE</th>
<th>MF</th>
<th>SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE1</td>
<td>0.906</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE2</td>
<td>0.769</td>
<td>0.828</td>
<td></td>
</tr>
<tr>
<td>EE3</td>
<td>0.828</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE4</td>
<td>0.731</td>
<td>0.799</td>
<td></td>
</tr>
<tr>
<td>EE5</td>
<td>0.799</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE6</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE7</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE8</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE9</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE10</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The new outer loading table shows that there is no error remaining in the data. The further analysis can be carried forward.

Table 5.4 Outer Loadings after Adjustment For Error

<table>
<thead>
<tr>
<th></th>
<th>EE</th>
<th>MF</th>
<th>SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE1</td>
<td>0.912</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE2</td>
<td>0.769</td>
<td>0.828</td>
<td></td>
</tr>
<tr>
<td>EE3</td>
<td>0.828</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE4</td>
<td>0.731</td>
<td>0.799</td>
<td></td>
</tr>
<tr>
<td>EE5</td>
<td>0.799</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE6</td>
<td>0.862</td>
<td></td>
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<tr>
<td>EE7</td>
<td>0.862</td>
<td></td>
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<tr>
<td>EE8</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE9</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE10</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF1</td>
<td></td>
<td>0.878</td>
<td></td>
</tr>
<tr>
<td>MF2</td>
<td></td>
<td>0.862</td>
<td></td>
</tr>
<tr>
<td>MF3</td>
<td></td>
<td>0.858</td>
<td></td>
</tr>
<tr>
<td>MF4</td>
<td></td>
<td>0.849</td>
<td></td>
</tr>
<tr>
<td>SM1</td>
<td></td>
<td>0.841</td>
<td></td>
</tr>
<tr>
<td>SM2</td>
<td></td>
<td>0.837</td>
<td></td>
</tr>
<tr>
<td>SM3</td>
<td></td>
<td>0.837</td>
<td></td>
</tr>
</tbody>
</table>

To analyze the multivariate regression the current study has used SmartPLS software. The model analyzed is as follows:
Figure 5.1 PLS results

The PLS Algorithm states two values on arrows β value is displayed. And in circle or latent variable R2 value is displayed.

These results suggest that women from age group and their responsibility are interrelated because with the increased responsibility of their children upbringing they try to minimize their activities even the income generating activities and give time to their children. Respondents’ education level is not a problem they are facilitated by the existing borrowers and the bank staff. Most of borrowers are illiterate women. Amongst those, women who are married and living in nuclear families are more inclined to take microfinance loans. Family size between 3-6 members uses microfinance loans. The reason can be that lower family size can depend on one member income and family size of 3-6 members cannot depend on one member’s income so, women of family has to work to help her husband to make a better living. The larger family size means they live in joint family, there are more members earning in family and the increased household workload on women restricts them to earn. In this patriarchal system, head of the nuclear family is a man, hence the husband makes most of the decisions.

The higher number of children in household compels women towards microfinance. The income of female borrower’s household range lies above the average income range of Pakistan household thus resulting in financial empowerment of women.

Economic independence is the main driver for women to take loan. The main reason for women to avail loan displayed in pie chart is to setup or expand their business. Rs. 10,000-50,000 loan is available for women entrepreneurs. Most of the borrowers have taken loan in the range of 40,000-50,000 in expectation of financial easing of the working capital for a small setup.

The borrowers who have taken loan for their businesses and spend it efficiently do not exhibit problematic behavior in repayment of loan because they have invested it on an income generating activity.
Microfinance has made most of women borrowers able to move freely in society because of their increased social and economic status.

![Figure 5.2 Bootstrapping results](image)

**Figure 5.2 Bootstrapping results**

In bootstrapping model t-statistics is displayed. T-statistics value should be greater than +1.96 to be lying in acceptance region. The t-statistics are both greater than +1.96. the assumption has been accepted or rejected will be decided on p value of t-statistics.

The SmartPLS software gives Standardized beta coefficients, R² (R square) value and t-statistics. These statistics give significant value on which basis a relationship can be accepted or rejected.

**Table 5.5 Model Fit**

<table>
<thead>
<tr>
<th>Variable</th>
<th>R square</th>
<th>Standardized coefficient beta</th>
<th>T-statistics</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MF→EE</td>
<td>0.733</td>
<td>0.856</td>
<td>14.4</td>
<td>0.00</td>
</tr>
<tr>
<td>MF→SM</td>
<td>0.537</td>
<td>0.733</td>
<td>6.8</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The R square value indicates that independent variable (microfinance) will change the dependent variable (economic empowerment) with 73.3% and 53.7% variance in model will be the result of microfinance impact on social mobility for female entrepreneurs. T-statistics should be greater than 1.96.

The model is fit as SRMR value in bootstrapping was less than 95%. The questionnaire and items in it are valid and reliable to further analysis. The results of t-statistics show that there is significant and high correlation between the variables.
6. Conclusion
The above findings and discussion concludes that there is a positive and significant relationship of microfinance program on economic empowerment and social mobility. The microfinance program factors are microfinance loan, saving facility, income generating activity. Whereas after excluding the economic variable to make the model fit.

This current research is based on Bahawalpur the future researcher can get data from different cities to have better results. The future researches can be conducted while taking different dimensions along with the social and financial empowerment to have better representation of microfinance.

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Public Policy Formulation in Pakistan during Military Regimes

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ARTICLE DETAILS

ABSTRACT

Pakistan has faced intermittent military interventions in politics since its establishment. In altered military governments, Pakistan faced severe swipes in public policy formulation since first martial law of Ayub Khan to the last military government of General Musharraf. Military governments tried to get de-jure prestige after coming into power and designed the government structure to sponsor their interests. Under military governance, performance of judiciary, religious leaders, external players and local administration persisted in critical situation. During military regimes, transformation program was executed in the country through public policy formulation intended to bring broadminded modifications in the constitution, legal and public domains of the country.

This study will observe the major policies of the military regimes in Pakistan and their impacts on social setup of the country. The core purpose of this study is to scrutinize the process of public policy formulation in Pakistan during military regimes, their effects upon the socio-political environment of Pakistan and addresses the key causes of disappointing results of these policies. The causes of armed forces interventions in politics of Pakistan will also be analyzed. The findings specifies that pitiable articulation of policies, feeble establishment, dominating behavior of military executives, poor structure of funds management, varied interests of community and that execution of public policies blemished by exploitation are noteworthy reasons to failure of public policies in the country. The study acclaims rearrangement of socio-political situations as benevolent expansions for difficulties of public policy.

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1. Introduction
Public policy is the main source through which governing body establishes guidelines or handles the necessities of its inhabitants according to the directions given by the constitution. The stability and progress of administration of any well managed country is a marvel that is reliant upon public policy. Since the establishment of Pakistan, the governing bodies have been struggling to implement a cherished mechanism for public policies formulation and implementation to address public issue but remained failed to adopt it.

The public policy formulation is a technical role of governing body which is a complex procedure effected by the different environmental and socio-political powers. Public policy formulation in Pakistan has always been faced political involvement and stress due to which it has been an arguable subject of policy developers. Handling the issues that are affecting the social development and economic growth of the country is the prime objective of public policy and to provide suggestions for the improvement of social indicators and economic sector.

Since its existence, Pakistan remained failed to articulate a strong public policy to overcome its issues. After Pakistan came into being in 1947, the number and power of army raised progressively due to numerous factors associated to colonial era. The royal inheritance united with the absence of proficient public servants, paved the way for martial law in the country and interference of the army in the public administration. Top level bureaucracy invited the military rulers to run the country by giving reductions to them against the public representative.

The migration on massive scale and communal assassinations of the people accompanied by partition, growth of nationalist activities on ethnic basis and disputes with India and Afghanistan due to Durand Line and Kashmir shaped the image of profound defenselessness. The first war between India and Pakistan was broke out after few months of partition over Kashmir. The declarations of Indian representatives that Pakistan will not be able to persist for a long time added fuel to the fire which resulted national disintegration. These elements influenced the initial security measures of the country and gave the reason for extraordinary and growing endowment of budget for military. (Giunchi, July 2014)

Ayub khan imposed first military government on October, 08 1958 in the country. After the Martial Law of General Ayub, country perceived four martial laws with small intervals. In four martial laws, military dictators captured the governments upsetting the democratic esteems. Second military government was enforced by Yahya Khan in 1969 replacing General Ayub Khan. Third military government was initiated by General Zia on July 05, 1977 and he governed the Pakistan for eleven years. Unsuitable public policies and imposing quick Islamization by Zia caused uprising of sectarianism in the country. During Musharraf’s era economic and social development was observed which reflects that the public policies of his tenure remained beneficial for Pakistan.

Public policy is a blend of the actions, requirements and decisions taken by government. Environmental directives such as financial, political and societal features not only form the shape of public policy also affect productivity and impacts of policy. Initially, the term public policy was presented by the American political scientist, Harold Lasswell in 1951 who is accepted the creator of policy science and after that in several of publications. “Public policy is whatever governments choose to do or not to do” (Dye, 2013). “Public Policy refers to the actions taken by the administrative executive branches of a country for varying classes of issues, in a way that they are consistent with the laws and institutional customs” (Hill, 2014). “Public policy is a formal document statement of intentions and sets of actions of a government to either remove certain deficiencies or to improve the conditions in any particular area of concern/interest” (Raja, 2015).

2. Public Policy Formulation
Significant duty of an executive body of any country is to formulate public policy and its enactment. According to the “Constitution of Islamic Republic of Pakistan” 1973, sole concern of an executive
branch is policy making through further division amongst the central, provincial and local governments. “The Principles of Policy”, Chapter 2 of the “Constitution of Islamic Republic of Pakistan” 1973 is observed as charter of desires of the people of the country.”

Formulation of public policies is the exceptional zone of designated legislature of the state and policies formulated by the legislature are being executed by the apparatus of the state. Logically, strategy and policy are different from each other. Public policy is honestly universal representing that what has been prepared whereas strategy summaries the precise actions for understanding the objectives and goals defined by the policy. A great number of individuals, interest and pressure groups, politicians, ministers, legislators, public servants, organizations, authorities, experts, external countries to safeguard their interests are involved in the development of public policy.

Man as an individual and in society is a being of social nature. Hence, the life of man is the life of social interaction. Man’s social interaction does not exist in isolation of social problems and as man interacts in different spheres of life – politically, economically, technologically, educationally, and otherwise, these social problems diffuse and spread along these sectors of life. It is in recognition of these social problems and in a bid to proffer durable and reliable solutions to them that the government is always seen formulating policies in response to them and in relation to fostering development, stability, growth, citizenry wellbeing and administrative efficiency. This is necessary because if attempts are not made to address these problems as they arise, they may degenerate into uncontrollable stages with the society’s socio-economic growth and development endangered (Okoli and Onah, 2012).

In view of this, a policy is a conscious plan of action and the action itself, initiated to solve a specific social problem. It is a plan or course of action by a government, political party or business designed to influence and determine decisions, actions and other matters (Lennon, 2009).

3. Theoretical Frameworks for Examining Public Policies
The study of policy process and analysis has speedily developed as unique extent of theoretical study which appropriately described to draw attention towards an extensive series of educational benefits, commonly in the western world. The stages model adopted for collecting data for this study offers an upright design for the methodical framework to examine the public policies. Due to this model, presentation of composite procedure for formulation of public policy comparatively becomes easy in modest way to pursuing a logical apparatus that may be imposed to formulate the public policy. The stages model is stated into different ways and has been individually named as linear model, public policy cycle, heuristic stages model or the sequential model (i.e. Jones, 1997; Lemieux, 2002; Smith & Larimer, 2009; Anderson, 2011). According to the stages model, the procedure of making of public policies can be distributed into numerous stages. Actually, every stage parallels to numerous moments in policy cycle. Public policies are framed by executive branch and executed by public and private actors. According the model of Howlett and Ramesh’s (2003), Policy cycle have five phases i.e. agenda setting, policy formulation, policy adaptation/decision making, implementation and evaluation.

4. Research Methodology
This study on public policy formulation in military regimes in Pakistan was exploratory in nature. The research design was qualitative. The data was collected through secondary sources which includes research articles published in various journals and available on online sites. Moreover, data was also collected through books written on public policy by some foreign and local authors.

5. Public Policy Formulation During the Military Regime of Ayub Khan (From 1958 to 1969)
First military government was imitated by Ayub khan on October 08, 1958. His regime is regarded as Golden Sixties. After taking control as “Chief Martial Law Administrator”, he declared that Martial Law will be eliminated after handling prevailing situation in the country i.e. economic, social and administrative misperceptions. In the beginning years, General Ayub Khan gave stress to improve the
supervision of government to firming his control. “Constitutional Commission” was formed by him. Commission reported on May 06, 1961 that presidential system is suitable for the country in place of parliamentary system. Ayub enforced a new constitution in the country on March 01, 1962 and lifted martial law on June, 06 1962. According to the new constitution, General Ayub took oath as President of Pakistan.

He introduced “Political Parties Act” on July 16, 1962 through which he expelled all political parties and seal their offices. Convention Muslim League was structured by the followers of Ayub Khan and he declared as president of Convention Muslim League on December, 24 1963.

Presidential elections were planned in January 1965. On July 21, 1964 all political parties in opposition included Council Muslim League of Khawaja Nazimuddin were organized as “Combined Opposition Parties” (COP) at Dhaka. Aim of this alliance was to provide joint contestants for Presidential, National and Provincial Assemblies. Conventional Muslim League had chosen Ayub khan as presidential candidate.

Ayub had given a stunning manifesto to the country. According to him ‘public will’ was supreme in all affairs of the country, democracy would fundamentally base on realism and basic rights of the public must be protected. As per forthcoming packages he committed that provision of broadest, imaginable and evenhanded sharing of wealth, adoption of a viable mechanism to preclude the repetition of floods in East Pakistan and rehabilitation of affected ones, constancy of costs of goods to avoid inflation, a complete code of ethics for media, Principal of Parity between two parts of Pakistan according to the constitutional requirements, progress of the concept of Islamic nationalism for alliance with Muslim world, struggle for independence of Kashmir, protection of minorities and equality of privileges. (Hussain, 2018)

The program launched by General Ayub was actually transformation which was imposed through implementation of public policies. The agricultural policies/Green Revolution of Ayub Khan improved the constancy of the government. The most significant and consistent public policy firstly was formulated in Pakistan in the era of Field Martial Ayub Khan. (Ansari, 1970)


General Ayub was removed on March 25, 1969 in result of campaign planned cooperatively by “People’s Party of Pakistan” of “West Pakistan” and religious parties from “East Pakistan”. General Yahya khan acquired control of the country as substitution of General Ayub Khan. In his tenure, Pakistan indulged in civil war resultantly divided the country into two parts in 1971 by giving birth to Bangladesh as an independent country.

After observing the tense political condition of the country, General Yahya decided that general elections would be detained on October 05, 1970 to transfer command to voted representatives of the public. He initiated Legal Framework Order (Interim Constitution) on March 29, 1970 as guideline for upcoming elections. First General Elections were held in the country in December, 1970 for which credit is gone to Yahya khan.

Mujeeb ur Rehman picked up 160 seats out of 162 in Eastern part of the country but his party Awami League remained failed in getting any seat from Western part of the country whereas, Mr. Bhutto got 81 seats of National Assembly in Western part of the country. Both Mujeeb ur Rehman and Zulfiqar Ali Bhutto wanted to become the Prime Minter of the country. Yahya Khan decided to handle the situation by using Forces in Eastern part and remained unsuccessful. At least, Yahya handed over the authority of remaining part of the country to Mr. Bhutto on December 20, 1970.

7. Public Policy during the Regime of General Zia-ul-Haq (From 1977 to 1988)

After the harrowing happening of “Fall of Dhaka”, country recuperated its administrative framework in
the command of Mr. Bhutto from People Party of Pakistan as Prime Minister of Pakistan. Beside commendation of General Tikka Khan, Mr. Bhutto indorsed General Zia as “Chief of Army Staff” of Pakistan. Later on, General Zia deposed Mr. Bhutto on July 05, 1977 by initiating third martial law in the country and governed the Pakistan for eleven years till August 17, 2019.

General Zia is admired for the promotion of Islamic values in the country. His firms believe was that Pakistan gain freedom on the notion of two nation theory based on Islamic values. Hence, Islamic laws must be adopted for the governing of it. But, determination of Zia was much critiqued due to self-centered relatively less advantageous for public. (Ziring, 1988).

The administrative situation of the country was extremely uncertain in the regime of General Zia. After taking charge of Chief Martial Law Administrator, General Zia declared that he will ensure the conduction of general elections within 90 days in Pakistan and the country will observe its representative administration very presently. But, General Zia suspended the program of general elections against his promise and initiated the program of accountability against politicians. (Arif, 1995).

The society of Pakistan was overwhelmed and divided on religious, political and traditional foundation since its existence. Due to forceful stress on Islamization and unsuitable policy steps of General Zia, it was further divided into clusters. Though, General Zia was not the main source of the divisions of nation but undoubtedly he enhanced the division of society due to his brutal policy. (Shakir & Qadri, 2015)

General Zia gave attention for the existence and growth of the country. Zia considered the country an Islamic state rather than democratic. Zia was against secularism and not acknowledged the significance of administrative procedure. Pakistan’s Public Policy was mandatory to be consisting of secularism & Islamic ideology however, significance stress of Zia towards Islamic side played vital role towards destruction in every field.

The story of the era of General Zia can be surmised according to the reality that there was a need of public policy for Pakistan which could handle the dominant circumstances and organized under irreligious elements (Ziring, 1988).

8. Public Policy during the Regime of General Musharraf (From 1999 to 2008)

Forth martial law of the history of Pakistan was enforced by General Musharraf on October 12, 1999. His era is deliberated as best regime of the country regarding quick progress of economy and social development. Perfect public policy was designed and executed during the entire tenure of Musharraf and the country was developed significantly during his eight years tenure.

Era of General Musharraf is deliberated as peculiar regime by military in the history of Pakistan. In military administration of General Musharraf, democratic values were motivated which is observed as contradictory against dictatorship. The features of the era of General Musharraf are distinctive and fairly remarkable such as these situations were not examined in the whole past of the country. (Shakir & Qadri, 2015).

Pakistan was facing political disorder and some more depreciation issues. After commencement of martial law, General Musharraf tried to get possible chances to overcome these issues. Incident of attacks of 9/11 on twin towers in United States and consequent announcement of United States to start battle against terrorism appeared as danger for the autonomy of the country. But, Musharraf changed it with his absolute competence into benediction for Pakistan. He remained successful to assure United States that Pakistan will be an ally in War against Terrorism under particular terms of complete clearance of debts, removing economic prohibitions and an extra aid of $19 billion (Rabbi, 2012)

To handle the horrific issues of economic situation of the country, General Musharraf implemented a
completely straightforward policy. Musharraf was fully aware that a firm policy is required to alleviate as he had took responsibility of incapacitated economy. The former democratic government gone with $900 Million debts from International Monetary Fund, massive external loan of 47.6% of GDP ($43 Billion) in 1998 and about 93.3% of GDP was entire loan (World Bank, 2014).

General Musharraf wants to commence democracy in the country for which he accepted the decision of the “Supreme Court of Pakistan” & held countrywide elections in 2002 to restore the democracy. Generous consideration and passion to acquire progress and focused aims were the main motives of Musharraf that assisted the country to generate finest public policy eternally.

General Musharraf was farsighted and liberal minded person wanted to support public awareness in the country. Due to his liberal thinking, he passed the law of women empowerment in Pakistan. Musharraf formulated flawless policies for all sectors as he imagined the country amongst the rapidly growing countries of the world. In view of Musharraf, restoration of Pakistan from ashes to gold was possible through secularism and country should be free from different types of discriminations. Musharraf conducted referendum like Zia to prolong his occupancy and was criticized by the opponents as dictator minded person. As “Chief Martial Law Administrator”, Musharraf permitted to all political parties of Pakistan to take part in general election (this permission was granted first time in the history of the country) He fixed a perimeter of bachelor’s degree for assembly members to enhance the worth of Parliament and vote. To deliver extra authorization he decreased the age limit for voter from 21 years to 18 years. The reserved seats of minorities and women for Senate and National Assembly were increased. For proper representation on local basis, local body elections were held in 2001.

Distinguish policy measures of General Musharraf were; formation of National Reconstruction Bureau, freedom of media, operational execution of education system, women empowerment and Immunization package. Formulation of public policies such as liberty of media, women empowerment and actual execution of these policies clearly indicate that Musharraf was not a narrow minded leader.

In Musharraf’s regime, economic growth of the country was on the way of progress than formerly and the country was registered in the row of world’s settled economic powers of future. The external loans of Pakistan were declining significantly and growing speed of economy was remarkable. Primary economic symbols like foreign assets, GDP, equilibrium of payments, equilibrium of trade, decrease in poverty and unemployment were all encouraging.

General Musharraf planned a five year plan of economic development to fight against the dominant economic issues of Pakistan and for the improvement of fiscal zone of the country (Khan S. R., 2004) stress was placed upon to regulate unemployment and inflation, reestablishment of macroeconomic permanency, restoration of key institutions, through enhanced fiscal authority, structural reforms and modifications to eradicate falsifications.

In the very beginning of the era of Musharraf, economic restructuring was planned which was proved fruitful to achieve success. To acquire the desired objectives significantly in the following years and for the growth of economic condition, reforms were implemented successfully. Dribbles of economy were channelized towards boosters by introducing an appropriate procedure of policy and they assisted for the growth of economic condition (Husain, 2009).

Musharraf presented the country as model place for investment by improving the parameters of economy and via improved structural capabilities of the industry. General Musharraf struggled hard to be operative and highest amount of FDI arrivals were inflated to support the economic position by oversees depositors which stabilized the Pakistani economy and delivered employment on large scale to local inhabitants (Nasir, 2013).
9. Conclusion
The immense examination of the study of formulation of public policy during military regimes in Pakistan and their effects as prescribed by the developers of policy determines that there is no specific sequel to categorize the reasons of the unacceptable outcomes of policy. Moreover, there are several conventional measures replicated as main reason for letdown of public policies during military regimes in the country like dominant attitude of the martial law administrators, nonexistence of a suitable structure for formulation and implementation of policies, absence of organizational structure, lack of democratic participation of political leadership, enormous corruption, lack of visionary leadership, adoption of central method in policy execution, inadequate financial allocations, weak community establishment, dejected civic facilities, untrained human resources, doubtful policy intentions and pitiable checking and assessment classification.

It has been recognized that the procedure of formulation of public policy and its implementation during military regimes had dominated by the personals in authority.

Implementation plays commanding role in determine the success and failure of policies. The findings indicate that implementation of public policy in country is a complicated procedure and based on thoughtlessness. Public policy is formulated by elites holding authority, political sponsorship, out of power leading groups, affiliated secret powers, and effective apparatuses for contribution in the policy subsystems. Due to instability and weak political conditions country has to face martial laws with different intervals. General Muhammad Ayub Khan initiated the first martial law in the country October 08, 1958. The first martial law was finished in 1969 with the replacement of another military rule by Yahya Khan. General Zia ul Haq enforced third martial law in the country in July 1977 and endured in authority for eleven years. In his tenure he faced ferocious resistance for speedy enforcement of Islamization. His inappropriate policies caused sectarian uprisings and exploded ethnic and racial differences among different classes.

Forth martial law was initiated in the country in October, 1999 by General Musharraf. At the time of imposition of martial law by General Musharraf, impression was that Musharraf wants to promote democracy but the facts of his period proved opposite. Examination about significant features of public policies throughout the Musharraf regime demonstrate that formulation of policy during the regime of General Musharraf was impeccable yet though, policies were defiantly improved in comparison with the policies of preceding martial law Administrator of the country. General Musharraf was an imaginative intellectual having generous personality.

The suitable policy primly gratified the beneficiaries in the greater concern of the country. Therefore, appropriate policy procedure may be implemented to achieve the desired results of the public policies. Several strategies can be adopted by government for successful implementation of public policy to acquire desired results i.e firming the absolute role of legislature in policy formulation process, carrying further probable commitment of people at indigenous level of policy formulation, draft out a solid emphasis on public worth in policy formulation and fetching the contribution of community in consumption of present funds appropriately. The governments should be accountable for emergent of practicable policies for public to handle their concerns. The armed forces of the Pakistan are most contemporary and biggest in the world. Pakistan Army became the pivotal political power in late 1950s which progressively penetrated in its economy. In 1980s, Pakistan’s military found infiltrated in decisive political decision making although utmost penetration into the social order and economy was initiated in the succeeding decade and continued to till now.

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Indian Policy to isolate Pakistan at International Forum and the way forward

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ABSTRACT

Bilateral relations of India and Pakistan have been under the shadow of misunderstanding, tensions and wars since the inception of both countries in 1947. India is ambitious to play a hegemonic role in South Asia, but Pakistan is considered a big challenge by the Indian policy makers. To counter Pakistan, India has embarked upon a bi-dimensional strategy towards Pakistan. First, it has intensified its campaign to diplomatically isolate Pakistan through blame game of terrorism. Secondly, it has inclined to use hard force when faced with terrorism and cross old lines. To achieve these targets, India has always used a multifaceted approach to wear away Pakistan's position in the international community. This paper mainly concentrates on the Narendra Modi’s foreign policy to isolate Pakistan among the international community.

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1. Introduction

In the modern era of renunciation of war, peaceful settlement of disputes and economic development each country has an explicit foreign policy predominantly towards its neighboring countries but Indian policy makers have plainly been acting upon an ambivalent approach which demonstrates their confused policy towards Pakistan.

According to Indian politicians Pakistan has become most difficult foreign policy challenge. On the one hand, there is a fundamental contradiction between India’s status quo and nuclear capability of Pakistan, its approach towards Kashmir and Pakistan’s determination to alter the Indian status quo. On the other hand, India’s incapability to overcome the challenge efficiently reflects the constraint imposed by major policy choices. Almost seven decades of antagonism between India and Pakistan have not fashioned a clear winner, except for the international armaments manufacturing industry (Sengupta, 2016).

Having traditional rivalry, both countries have a clear unfriendly set of foreign policy for each other since their independence. Both have unfriendly relations due to difference in respective ideologies. India's quest for gaining hegemony in the region is driven by ultra-nationalism ideology where Pakistan is considered an ultimate challenge to Indian ambitions.
In order to get the status of regional hegemony, India needs to deal with Pakistan. The US and its allies are supporting India for their chase to counter the China as an emerging regional power. The prospective of the China-Pakistan Economic Corridor (CPEC) has appended a new aspect to Indian foreign policy to isolate Pakistan as Central Asia and the West is not under direct access of India; therefore, India has started a two-dimensional strategy towards Pakistan. First, it has intensified its campaign to diplomatically isolate Pakistan through blame game of terrorism. Secondly, it has inclined to use hard force when faced with terrorism and cross old lines. To achieve these targets India has always used a multifaceted approach to wear away Pakistan's position in the international community (The Dawn, September 2, 2016). The US CENTCOM Commander General Joseph has also commented that Indian policy of isolating Pakistan internationally is dangerous. Any conflict / war between these two countries will have catastrophic consequences for the entire region (The Dawn, March 10, 2017).

2. Literature review
The present study deals with the Indian foreign policy to isolate Pakistan at international forums. The main objective of this research is to investigate, analyze and understand the Indian foreign policy to malign Pakistan in international community as terrorist state so that it can be alienated and isolated at global forums. The study, Mainsprings of Indian and Pakistani Foreign Policies by Burke (1974) provides a detailed perspective of Indian and Pakistan's foreign policy till 1960s. The author clearly describes early phase of the relationships between the both states and origin of their foreign policies, departure of British, division of India and its consequences on the bilateral relations, Nehru factor in Indian foreign policy and goals of the foreign policies of both countries. Although this study provides a detailed picture of the nature of relationship during the early decades of independence yet its lacks of current data regarding the foreign policies of the both countries.

Another important study, Indian National Security Dilemma: the Pakistan's Factor and India's Policy Response (Budania, 2001) after providing conceptual framework of Indian national security, it gives a detailed account of origin, determinants and objectives of the Indian foreign policy with special reference to Pakistan. It also highlights the problem of Jammu and Kashmir and provides details about the Indian concerns about the dispute, Pakistan’s proxy war in Kashmir, India’s Kashmir policy and Kargil war. The author comprehensively discusses arms race, nuclear issue and many other non-military issues and disputes between the two countries and role of United States, Russia (Soviet Union) and China in resolving those disputes. However, the book provides a detailed picture of the subject but lacks unemotional treatment. It also ignores the pakistan’s viewpoint on various military and non-military disputes between Pakistan and India.

The Oxford Handbook of Indian Foreign Policy (Malone, Mohan, & Raghavan, 2015) provides a comprehensive knowledge about the Indian foreign policy. As India has become more involved in the global economy and faces China's strategic competition, it has sought to strengthen its relations with the countries of East Asia, Southeast Asia and the Middle East and to improve its links with the major powers. But as this collection of concise and authoritative essays shows, New Delhi has not been able to establish close ties with its immediate neighbors who would provide a springboard to exert significant additional influence. Nor is it effectively linked to international institutions in the areas of trade, finance, arms control or climate change. The decision-making apparatus of the country is dysfunctional. The Ministry of Foreign Affairs has not sufficient staff and works without significant supervision of political parties, parliament, business community, media or academia. The army lacks the strategic direction of the civil authorities and its service branches barely coordinate. The nuclear weapons program is based on autopilot and the national arms agency has not been able to produce high-end indigenous weapons. Covering all of these topics, the book opens up many fascinating areas for future research. Although, the book highlights all aspects of Indian foreign policy yet it lacks information regarding its relations with neighboring countries especially, Pakistan.

Another study, Indian Foreign Policy in a Unipolar World (Pant, 2012) projects various features of the
Indian foreign policy in contemporary security environment. India's foreign policy, outside the structural limits of the Cold War strategic framework, has become broader in defining its priorities in recent years. With the increase of its economic and military capabilities and strategic interests, India has forged a diplomacy that is much more aggressive in pursuing those interests. Locating the path of foreign policy of India in the 21st century, this book looks into the factors that fashioned the Indian reaction to this emerging global security atmosphere. Including a new epilogue, this updated volume analyzes the main effects that have shaped contemporary Indian foreign policy, in the context of its commitments to strategically important regions around the world and its relations with the main world powers. Although, this book is most important for the students of global politics yet it ignores the Pakistan’s factor in Indian foreign policy.

*Changes in India's Foreign Policy towards Pakistan* by Dr. Nitin Prasad (2017) is a comprehensive document which provides a detailed picture of Indian foreign policy. For long times, the central point of the foreign policy of India has been Pakistan. The author asserts that India was the country where the foreign ministry had to split its head most of the time on Pakistan. The four wars and the conflicts like Rann de Kutch and Siachen, the militancy in Kashmir which has caused tens of thousands of lives and terrorist attacks across India cannot be ignored. Pakistan and India divided on the basis of the two-nation theory and the Muslims denied living in India as minority. The dispute over Kashmir emphasizes this division and still arises today. India has fought four wars with Pakistan and since 1980, when the Soviet Union involved in Afghanistan, the Pakistan with United States started anti-Soviet terrorism and Pakistan had the bright idea of using it against India, further worsening relations between the two nations. Narendra Modi's foreign policy refers to the political initiatives taken by the current government towards other states after taking the position of Prime Minister of India on May 26, 2014. Although the book is mostly based on empirical research yet it is not simply a research enterprise. It is also an analytical study aimed at creating and influencing opinion on the essential elements of the decision-making process which would minimize the possibilities of non-rationality in Indian foreign policy.

The research article titled “Pakistan’s Foreign Policy in the Changing International Scenario” (Khan, 2006) describes history, objectives, principles, factors and determinants of Pakistan’s foreign policy. The author highlights Indian factor as major determinant of Pakistan’s foreign policy. The paper covers almost all aspects of Pakistan’s foreign policy towards India but it lacks recent developments in bilateral relations of India and Pakistan.

Another article titled “Modi’s Foreign Policy fundamentals: a trajectory unchanged” by Basrur (2017) evaluates changes in the principles of Indian foreign policy during Modi regime. The author describes that the advent of Narendra Modi as prime minister has shaped significant argument about the direction that Indian foreign policy could take under his leadership. While there are several ways in which Modi’s foreign policy can be assessed against the major powers, three general questions are of fundamental importance. Firstly, having reputation as a loyal Hindu nationalist, to what extent do his ideological inclinations influence Modi’s foreign policy, in particular as regards the use of national power? Secondly, how is Indian policy towards the great powers conceived? Are there signs of a classic approach to balance of power that attracts the United States and Japan against China? Finally, how is Indian foreign policy configured to achieve a higher status in the state system? Above all, is Modi considerably different from its ancestors? There is evidence that there is no important change in the use of power derived from "Hindu" content in Modi’s foreign policy; that his approach to the great powers reflects continuity (with some variations) focusing on strategic alliances; and that state research is in line with the strategy followed by previous prime ministers. In summary, there is no substantial change in the path of Indian foreign policy and the rise in the future direction of India is likely to remain foreseeable and moderate.

3. Objectives of India’s Foreign Policy
There are five main basic constrains on which Indian foreign policy is being driven.

3.1 Conventional Security.
The most important objective of the Indian foreign policy is to ensure conventional security of India as a state. To ensure its sovereignty and security, India has strengthened her armed forces especially the military that ranked 7th largest in the world (The Taipei Times, May 29, 2017). India is committed to renew its military strength on three principal reasons:

- To oppose China's expansion and quest for hegemony in the region.
- To maintain military pressure on Pakistan because Pakistanis perceived as main conventional threat to India's security. Both states are at conventional rivalry since their independence.
- To ensure the safe and continuous transport of natural resources and other trading items through the Bay of Bengal, in particular the area around the Strait of Malacca which is still very sensitive to piracy and through which approximately half of the world oil flow (The Taipei Times, May 29, 2017).

3.2 Economic Growth
The Indian government is focusing on increasing GDP growth rate by inviting investors from the developed world, using international resources and markets, as well as internal momentum. Most of their energy and attention is focused on mutual economic plans (Thomas, 2007). It always supports the objectives and functioning of the regional and multilateral agreements like ASEAN, FTA, SAFTA, SAARC, BIMSTEC, TAPI, and BRIC. However, due to its unsuccessful economic relation with South East Asian neighbors, India is now trying to establish economic relations with China on mutually beneficial grounds (Dormandy, 2007).

3.3 Energy Security
To achieve the desire economic growth, India has to ensure its energy resources. It has largest lignite coal resources but its utility is not economically and environmentally feasible. To secure energy resources India is focusing on access to oil rich Middle East region particularly on Iran (Madan T., 2006). It is also expanding its search for energy resources into Africa and Latin America.

3.4 Nuclear Potential
Pakistan and China being nuclear powers are major concern for India in the region. In this situation, India concentrates on to its nuclear potential. With the help of discriminative policies of the West, India has been able to build strong nuclear capabilities and weapons to counter the potential threat from both neighborhood nuclear powers.

3.5 Prestige Safety
New Delhi's final priority is to search its "rightful" place on the globe (Dormandy, 2007). India, with the help of strong activities on all international forums and the backup support from the US and the West, has apt to achieve hegemony in the region. India, in order to gain regional leadership, in many circumstances, faces presence of Pakistan as a potential impediment. India wants to counter this hindrance of Pakistan to become regional leader that would ultimately pave its rightful position globally.

4. Isolation of Pakistan - Major Part of India's Foreign Policy
Based on above mentioned objectives of Indian foreign policy, the main core of India is to desire for hegemony and the leadership of the region. For this purpose, Indian government remains focused on Pakistan as main obstruction for their interest. Indian leadership pay much attention on anti Pakistan activities directly or indirectly to destabilize it.

Most important part of India's foreign policy is to isolate Pakistan among international community. To achieve the desire goal India has adopted a strategy of wide canvas and multi dimensional. It is countering Pakistan on all forums to gain best favorable results. Important elements of the Indian's strategy are as following:
4.1 Defame Pakistan's Nuclear Capabilities
Pakistan nuclear program has been a target of extreme criticism since the very beginning. In the aftermath of 9/11, an immense security hysteria and paranoia has been generated to undermine Pakistan's nuclear capabilities. Consequently, Indians on the behest of West has launched a continuous smear propaganda campaign to keep the theme alive that Pakistan's nuclear assets are unsafe and are likely to fall in the hands of radicals/terrorists or unauthorized elements.

At this stage, India seems like a western paid element and her cover and overt activities in collusion with non-state actors pose a serious security threat to Pakistan's nuclear program. These non-state actors, along with pseudo intellectual, who are eager to sell the interest of motherland for personal interest, can create an embarrassing situation for Pakistan while playing in the hands of their foreign sponsors. Indian intelligence agency Research and Analysis Wing (RAW) along with hostile intelligence agencies is looking for the opportune moments to make the possibility of targeting Pakistan's nuclear program by non-state actors a reality.

4.2 Putting military pressure on Pakistan
India is planning to pressurize Pakistan by developing modern weaponry and expanded offensive deployment by conducting military exercise to show the power of attack in case of war. India's frequent violation of the Line of Control (LOC) in Kashmir and a false claim of surgical strike inside Pakistan territory is a case in point.

4.3 Cooperation of Afghanistan in anti-Pakistan activities
The US think tank, in order to maintain the pressure on Pakistan, floated a term with the help of propaganda theory that Pakistan has influenced over Afghan Taliban, nevertheless, Pakistan's security establishments are confronting with the Jihadist groups. Pakistan has done a lot for Afghanistan, yet India is welcomed with open arm and heart in Afghanistan. It is a third important element of Indian strategy. India has succeeded in aligning with both Iranian and Afghans moreover it has built much closer economic partnership with oil rich Arabs countries especially United Arab Emirates (UAE).

4.4 Involvement in Internal Affairs of Pakistan
The fourth significant element of India’s strategy is to involve in Pakistan’s internal affairs by supporting some disgruntled persons. The Indian spy Kalbhoshan Yadav who is serving Indian Naval Officer and RAW agent has confirmed that India is involved in terrorist activities in Baluchistan and Karachi. By doing so, India is trigging an inside security threat in Pakistan and propagating Pakistan as terrorist country. The international community knows very well the difference between our fight against the terrorist who challenges our state's writ and those who operates against our adversaries. This is the duplicity that alienates our allies against terrorism and provides ample ground to India to exploit it to his advantage.

4.5 Projection of Pakistan as a Terrorist State
India is implicating Pakistan as the epicenter of terrorism. He is directly connecting Pakistan to global terrorism with the help of strong propaganda and diplomatic maneuvers. During the joint session of the US Congress Indian PM was quite alarming for Pakistan as it unveils that both India and the US would collaborate on UN terrorist designation. This means India will have complete US backing in putting any militant group on global terrorist list. This is bad news for Pakistan with its current diplomatic efforts and this is what India might possibly be hoping to gain through this terrorist oriented Pakistan specific diplomacy as next step after isolating it globally.

5. Has Pakistan been Isolated?
Pakistan has been badly affected by the fallout of war on terror. The cumulative effects of various forms
of terrorism and its manifestations pushed Pakistan more deeply into lawlessness and economic degradation. Negative consequences of terrorism on Pakistani society varied from socio-cultural effects that have changed in life pattern, environment of fear and intolerance to economic effects (slow economic activities, flow of capital abroad and significantly poor effects on international sports.

Legislation and implementation of National Action Plan by the Government of Pakistan is considered a major response from the state to crack down on terrorism. Widespread support from Pakistani political, defense and civil sectors and results achieved through launching of “Operation Zarb-e-Azab” and “Karachi Operation” need to be kept in mind. With the commencement of operation “Raad-ul-Fasad” by the Law Enforcement Agencies (LEAs), Indian sponsored terrorist network in Pakistan has been broken. The LEAs have successfully neutralized battle-hardened terrorists, their facilitators and sympathizers. Not only is terrorism rooted out from Federally Administered Tribal Area (FATA), urban terrorism in Karachi and Bloch Sub-Nationalism has also been decisively defeated.

Pakistan is courageously being made a lot of efforts at international and regional level to continue fight against terrorism through international cooperation. It would not be an exaggeration that Pakistan, over a period of time, has become a frontline state to fight against terrorism. In this regard, following steps has been taken by the government of Pakistan which requires consideration on merit:

- Enactment of various laws for the prosecution of terrorism, their supporters, financiers, planners and even the sympathizers.
- Steps taken against religious persecutions, registration and regulation of religious seminaries / clergy.
- Banning of certain organizations, NGOs and outfits.
- Freezing number of bank accounts of terror suspects thus choking the financing of terrorists and terrorist organizations.
- Efforts to conduct speedy trials of terrorists and criminals by revamping and reforming the criminal justice system.
- Establishment of Anti-Terrorist Courts and political conviction of terrorists proved guilty.
- Political, administrative and developmental reforms in FATA to bring them in the national stream of politics.

With the defeat of terrorists, routine life in Pakistan is fast returning to normal which is evident from the increased participation of people from all walks of life in entertainment and enjoyment activities that includes celebrations of National Holidays, cultural festivals and conduct of PSL cricket tournament final at Lahore. On the other hand, India through her media and intelligence agency RAW along with anti-Pakistan intelligence agencies is engaged in a continuous propaganda campaign to malign Pakistan. Her efforts to distort / tarnish the image of Pakistan at international level needs to be mitigated comprehensively by developing a counter narrative highlighting own strengths and weakness of India especially the state sponsored terrorism being forced upon in various states of Indian union.

Failure of quadrilateral process for reconciliation in Afghanistan, a sharp recession in relation with Washington, a cancelled SAARC summit, a missed signal from Tehran for good relationship and a period of frigidity with Southeast Asian countries, somehow indicate the Pakistan's growing isolation due to lack of effective diplomacy. However, development in the China-Pakistan Economic Corridor (CPEC), a progressive rapprochement with Moscow and the continuing stalemate at the Nuclear Supplier Group over admission of Non-NPT member states, are the indication of failure of Indian’s policies for isolating Pakistan.

Despite expending huge amount of its budget, India has failed to isolate Pakistan. Pakistan maintained a very close strategic relationship with China. Although Pak-Iran relations are complex yet that are not as
hostile as enemies. It has also friendly collaboration with regional Turkey, Saudi Arabia and G. C. C countries. Isolation faced by the edgy relationship with Afghanistan Bangladesh and the US are solely due to diplomatic failure on part of Islamabad.

With huge economic potential, important strategic location and military worth Pakistan has been able to create positive influence on international community. The tense relationship with India is a historical norm. India's arrogance and aggression towards Pakistan has exceeded expectations, partly due to the apparent weakness of Islamabad, but mainly due to the change in the global and regional strategic environment. India's growing association with the United States in the context of its growing competition with China is also a basis for India's arrogance.

The emergence of US-Indian alliance is encouraging New Delhi's egotism towards Pakistan. It has aggravated security concerns of Pakistan, manifested in US massive assistance in Indian arms built up and wide attempts to hold and neutralize Pakistan's nuclear capabilities, but due to safe nuclear activities of Pakistan, India has failed to do so.

The changing geo-political scenario not only brought challenges, but also helped Pakistan to survive major crisis. Due to the international politics, Indian move to condemned Pakistan at BRICS summit failed and New Delhi's candidature for NSG remained held up despite the best efforts of the previous (Obama) US Administration. The US-India coalition forced Russian government to rethink its relations with Pakistan. The successful joint China-Russia efforts to block India's anti Pakistan efforts at both "The BRICS Summit" and the "Heart of Asia" conference are evidence of realignment in the region.

In 2016, India tried to isolate Pakistan over terrorism on the base of Pathan Kot and Uri attacks, but failed to convince any global player to stand with. Myanmar's leader, Aung San Suu Kyi's statement soon after the BRICS moot that what needs to isolated is terrorism rather than countries, is a clear critique of India's isolation attempts (The Dawn, April 3, 2016). Pakistan has achieved striking improvement in dropping terrorist bustle within its boundaries. According to the Institute for Economics and Peace 2016,Global terrorism index, Pakistan has perceived a 30 percent fall in terror connected fatalities from 2014 to 2016, due to the operation Zarb-e-Azab in Federally Administered Tribal Area (FATA), Baluchistan and other affected areas in the country (Gloabl Terrorism Index, 2016). Events such as the PACES competition being hosted by Pakistan army in Lahore with participation from armies of fourteen countries and Pakistan army winning competition in UK highlight the Indian failure of to that end.

Apart from 58 ceasefire violations since Uri attack, an additional division of the Indian army has been placed on the LOC and a squadron of Russian SU-35's has brought to the forward base. The firing incidents along working boundary in Shakargarh (Sialkot) Sectors also show the Indian aggression. Indian tried their best to provoke but Pakistan remained steadfast on using diplomacy while remaining cautious of any misadventure on the border, as it would inflame tense situation. (Pakistan Today, April 3, 2016).

6. Measures Required Countering India's Attempt.
Pakistan can face India's security threats and maintain a credible deterrence (The Dawn, March 10, 2017). While confronting regional and global strategic developments Pakistan should try to address Indian efforts in following ways:

- Pakistan has to address the growing US alignment with India and Afghanistan. Pakistan will have to develop policies that can neutralize US positions that are adverse to the important interests of Pakistan, while safeguarding its tactical collaboration with China. This is the main foreign policy challenge facing Islamabad in the context of Chinese-American rivalry. Therefore, Pakistan must design and implement its external policies in a clear and effective way to guarantee national interests.
- It is need of the hour now that Pakistan should take the initiative to make fresh diplomatic overtures of its own to make our traditional allies in Arab world to identify their mistakes in strategic
calculations (Roomi, 2016). Pakistan should run international campaign for its true image and promoting its nuclear deterrence as its principal strategic concern for its defense from any aggression. Nothing is more important than the security of Pakistan.

- Effective measures should be taken to forestall the Indian - Afghan Intelligence sponsored attack on Pakistan's civilian and security forces, from the territory of Afghanistan, conducted under the cover of TTP militants and the Baluchistan Liberation Army insurgents.

- Pakistan should take effective steps to counter India's attempts to create domestic discord in Baluchistan, rural Sind, and Karachi to destabilize Pakistan (The Dawn, March 10, 2017).

- It is time for Islamabad to engage both military and civil leadership to conduct a thorough review of India's goals and policies towards Pakistan and also develop a logical and agreed plan to respond to each aspect of the Indian policy directed against Pakistan (Roomi, 2016).

- Pakistan should be clear about the counter measures which can be realistically promoted at this stage in the comprehensive dialogue. Pakistan has no obligation to request a dialogue, while New Delhi refuses to address the central problems of Kashmir, Siachen and Sir Creek, the problems of water distribution (Indus water treaty) and terrorism.

7. CONCLUSIONS
Pakistan’s role in stabilization of south Asia, as desire by global community, is considered important for interconnecting Central Asia and South Asia. India, despite its failure to isolate Pakistan, is arrogantly avoiding dialogue over outstanding issues including Kashmir and still continued with its blame game.

Bilaterally, the two states require constructing a firm political association while promoting trade and building cooperation. Both states should put into effect utmost restraint, recommence dialogue and institutionalize arms reduction mechanism. Under the hub of diplomatic means they should focus on the settlement of the bilateral core issue especially Kashmir. In a nuclear sphere of influence total use of force and full victory is unachievable for both. Both countries have to revisit and rationalize their all-inclusive military plans and adopt budget constraints to avoid any risk of nuclear war in the region. They should set up arms control mechanism that imitates doctrinal precision for the good of the people of both the states.

References


foreign-policy-isolating-pakistan/


Effects of Malnutrition on the Academic Performance: A Case Study of Grade 6-8 Learners in Punjab, Pakistan

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ARTICLE DETAILS

ABSTRACT

The present research is design to assess the “effects of malnutrition on the academic performance of grade 6-8 learners in rural areas of Tehsil Hafizabad”. Quantitative research approach was used to achieve the objectives of the study. Quantitative data was gathered by using Scheduled Interview from the sample of 150 learners of the three selected schools. Data was analyzed through statistical package for social sciences (SPSS). The outcomes of the study revealed that the malnutrition, particularly the use of low quality foods significantly lowers the academic performance in terms of lowering the understanding level of the learners and attainments; it reduces the attendance rate ultimately. It was observed that the less participation in physical activities, low income of the household and crowded demographic conditions reduced the learning capacity of the students. Some useful suggestions were also made, strictly ban on low quality food, awareness programs should be launched for public, and more studies must be conducted to highlight and overcome the issue.

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1. Introduction

Malnutrition remains a serious public health issue around the underdeveloped countries, especially in South Asian and African countries. Mostly malnourished children are present in developing and poor countries. Ergin (2007) explained that 70% malnourished belong to Asia, 26% to Africa and 4% to Latin America. Grover (2009) explained that a study done in 53 countries explored that over 50% of deaths of the children are relate to under-nutrition. Malnutrition can be delineated in multiple ways. Child malnutrition is a pathological condition caused by insufficient nutrition; malnutrition contains three broad concepts which can be described as under-nutrition, over-nutrition and micronutrient deficiency. Grover (2009) described that malnutrition is a physical condition of inadequacy or superfluity of protein, energy and different other nutrients. Malnutrition is the outcome of insufficient food supply which is caused by social, economic, political and sometimes environmental factors like natural disaster, as explained by Shah (2003) that the major threats for stunting are female education ignorance, poor economy of the household and overcrowing.
Malnutrition and health are closely interlinked with each other. Malnutrition directly affects the health. Malnutrition put the burden on the children in the form of different diseases. Diseases and poor health status almost affects all the areas of developmental process as well as creates problems throughout the life. Physical and mental health of early life gives basis for adult life. Because the process of development mostly occurs in the early years of life so we discuss the three major areas of the lives of the children which are might be affected by malnutrition namely school performance, socialization process and economy. There are many other factors like poverty, low parental education, social and gender discrimination, racism, political and environmental conditions and less availability of resources that hinder the school performance, damaging the economy and reducing the social activities; but despite that these three aspects might be affected by malnutrition because better nutrition is considered the basic to proper human development and better health conditions. Today the health condition of millions of people in all over the world is entirely discouraging, specifically in the underdeveloped countries. Ergin (2007) depicted that malnourished children had lowered resistance to infectious diseases and died early. He was of the view that the children who survive face the problems of growth retardation, illness and poor nutritional level which keeps the malnourished children into dreadful recurring cycle of sickness and this hindered the learning ability of the children.

According to the world health organization (WHO) Malnutrition means the cellular imbalance among the nutritive ingredients, energy and the need of these ingredients to assure the body’s growth, care, feeding, and other particular functions, (Grover, 2009). The progress of the population of any state is closely interconnected to the academic achievement of the population of that state. The development of any society depends extremely on the quality of academics. It has been found that malnutrition and impaired health in early life possibly affect the cognitive skills. Malnutrition reduced the academic performance and causing delay in attending school (Ghosh, 2013).

The provision of education and food is generally approved as a fundamental human right. It is committed by all member countries of the United Nations in 2000 to accomplishing universal primary education and abolishing hunger, (UNICEF, 2004). Malnutrition is a significant public health issue in Pakistan. Due to the high prevalence of malnutrition 740,000 children deaths happen every year in Pakistan (UNICEF, 1996). The problem of malnutrition is not only found in children of age group under five, but also malnutrition is a major issue in older children. Studies conducted in 1980’s show the high prevalence of malnutrition in the male school children in rural areas of Pakistan ranging from 47-70%. Malnutrition was highly spread among elderly children and those who belong to poorer and larger households, (Mian, 2002). According to the findings of National Nutrition Survey of 2011 the percentage of underweight and wasting children in Pakistan is 31% and 17% respectively. The stunting rate in Pakistan is 44%. A huge figure of 58% of the households is facing the problem of food insecurity (NNS 2011).

The development of any nation depends upon the nutritional level and educational level of the people. Many studies have given sufficient data about the importance of the proper food and nutrition for the development of the cognitive skills and better academic performance. But until now, it could not been clearly described that how nutrition obstructs or enhances academic performance. The results of the study will reflect the true picture of present situation of nutritional level of the children and its impact on the academic performance in rural areas. Pakistan is a country in which people have poor nutritional level and also the low educational level particularly in rural areas so this study will help the policy makers, government organizations as well as private sector organizations and institutions to develop the futuristic policies for the betterment of the rural areas. This study is also beneficial for the parents and teachers to plan that how they can improve and enhance the present nutritional level and academic performance of the learners.

Chinyoka (2014) found that malnutrition affects the academic performance. The results of the study demonstrate that the undernourished and hungry children are less capable to attend the school and if attend then facing the problems in concentrating and learning, also having no interest to take part in
physical activities like sports event.

Freijer (2013) explained that disease related malnutrition has serious consequences for the physical health and also creates psychosocial problems. He studied the additional costs related to diseases related malnutrition, and argued that the additional costs to manage the patient of diseases related malnutrition were considerably higher than other patients. Ogunsile (2012) explored that all the dietary patterns healthy dietary patterns (e.g. intake of breakfast, fruits, three square meals, milk, vegetables) and unhealthy dietary patterns (e.g. the use of sweets, chewing gum, and soft drinks) and body mass index had significantly effects the academic performance of the students.

Florence (2008) demonstrated that the students who eat overall low quality diet found to be poor performers on the tests and assessments. Girls who belonged to socioeconomically wealthy families have higher performance than boys. Fu (2007) described that the children with high level of unhealthy consumption pattern means high intake of foods like sweets and fried foods (low quality foods) and the inadequate use of dairy products as well as inadequate intake of foods like vegetables, meat, fish, fruits and eggs, which are considered as highly nutrient packed foods had more chances to show poor academic performance. Crookston (2011) stated that the Children who belonged to wealthy and smaller size family get higher scores in assessment.

Trudeau (2008) explored that the participation in physical activity enhanced the academic performance of the learners, and positively associated and influenced the behavior of the learners in the classroom, enhanced memory and concentration of the learners. Martorell (1999) explored that malnutrition affects the physical growth, cognitive development and weakens the immune system. He argued that the children who bear malnutrition in early life can suffer many functional complications as adults, including lowering intellectual performance, lowering the productivity level and have low capacity for work. The better nutrition and food most probably will produce more healthy and productive adults, which in turn increased the human capital and economy.

2. Objectives of the study

- To study the dietary patterns of the grade 6-8 learners in middle schools of district Hafizabad.
- To investigate the participation of grade 6-8 learners in physical activities.
- To explore the socio-economic status of the grade 6-8 learner’s families.
- To suggest suitable remedies to overcome the malnourishment of the grade 6-8 learners at dustiest Hafizabad.

3. Hypotheses of the study

Hypothesis 1
- The higher the use of low quality food, the lowers the academic performance of the learners.

Hypothesis 2
- The less the participation in physical activities, the lowers the academic performance of the learners.

4. Research methodology

The researcher used the quantitative research approach in this research. The universe of the study was the Tehsil Hafizabad, Punjab, Pakistan, whereas the people of Tehsil Hafizabad were considered as the population of the study. Multistage sampling technique was used to draw the sample. In step I the researcher drew two union councils (Sagar Kalan and MangatNeecha) out of 46 union councils of Tehsil Hafizabad by using convenient sampling. In step II the researcher drew three schools from the two selected union councils through convenient sampling. In step III proportionate sampling was applied to draw the sample from the selected schools. In step IV 150 respondents were selected through simple
random sampling technique. Structured interview schedule was used as a tool for data collection from the students. Quantitative data was analyzed through Statistical Package for Social Sciences (SPSS). Bivariate and multivariate analysis techniques were used to analyze the data. Chi-square and Gamma tests were applied for bivariate analysis in the end multiple linear regression analysis was also employed to analyze the combined effects of independent variables on the dependent variable.

5. Analysis and Discussions (Bivariate Analysis)

Research Hypothesis 1: higher the use of low quality food, the lower the academic performance of the learners.

Table 1: Association between the use of low quality food and the academic performance of the learners

<table>
<thead>
<tr>
<th>The use of low quality foods</th>
<th>Academic Performance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Sometimes</td>
<td>20</td>
<td>49</td>
</tr>
<tr>
<td>Often</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>73</td>
</tr>
</tbody>
</table>

$\chi^2 = 58.133^a$ D.F= 4 $\gamma = 0.851$ P-Value = 0.000

Table 1 depicts that there is highly significant connection among the two variables. Results match with Fu (2007) & Florence (2008) explained that the students who take overall low quality diet, fried foods and sweets found poor performers in the tests and had overall lower performance in the school. It means that the quality of food had greater importance for quality education; so parents, teachers and government should focus on food quality.

Research Hypothesis 2: The less the participation in physical activities, the lowers the academic performance of the learners would be.

Table 2: Association between participation in the physical activities and academic performance of the learners.

<table>
<thead>
<tr>
<th>Participation in physical activities</th>
<th>Academic Performance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Often</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Sometimes</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>Seldom</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Never</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>73</td>
</tr>
</tbody>
</table>

$\chi^2 = 46.550^a$ D.F= 6 $\gamma = -0.637$ P-Value = 0.000

Table 2 reveals that less participation in physical activities lowers the academic performance. Results acknowledged Trudeau’s work (2008) and explored that the participation in physical activity enhanced the academic performance, memory and concentration level of the learners. So, we can say that physical activities are much important for a healthy body and to maintain the healthy life because a healthy body contains a healthy mind. Hence teachers and parents should promote the physical activities and sports events in schools while motivating and supporting the children to participate in.
Multivariate Analysis

Table 3: Influence of various independent variables on dependent variable: A multiple linear regression analysis

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Un-standardized coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Significance (P-Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>7.636</td>
<td>3.462</td>
<td>2.205</td>
<td>0.029</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>0.334</td>
<td>0.071</td>
<td>0.320</td>
<td>4.714</td>
</tr>
<tr>
<td>Participation in physical activities</td>
<td>-0.380</td>
<td>0.111</td>
<td>-0.235</td>
<td>-3.418</td>
</tr>
<tr>
<td>Low Income</td>
<td>-0.827</td>
<td>0.263</td>
<td>-0.215</td>
<td>-3.141</td>
</tr>
<tr>
<td>Crowded Demographic Conditions</td>
<td>0.306</td>
<td>0.108</td>
<td>0.200</td>
<td>2.825</td>
</tr>
</tbody>
</table>

\( R^2 = 0.356, \quad F = 21.560, \quad P\text{-Value} = 0.000 \)

The overall model is significant with 35.6% effect on dependent variable. Detailed description is as under:

The regression coefficient \( b_i = 0.334 \) for the independent variable “malnutrition” showed a highly significant connection with academic performance having \( P\text{-value} = 0.000 \). Findings of the study acknowledged Chinyoka (2014) and explored that malnutrition lessens the capability of the learners in concentrating, learning and attending the school. This implies that better nutrition is considered the basis of healthy life so parents should provide better nutrition to their children, which in turn enhances their academic capability.

The regression coefficient \( b_i = -0.380 \) for the independent variable “participation in physical activities” showed that less participation in physical activities decreases the academic performance. Results matching with Trudeau (2008) found that one who took part in physical activities gave better performance in academics. Chinyoka (2014) explained that malnourished children take little interest in physical activities and sports event.

The regression coefficient \( b_i = -0.827 \) for the independent variable “income level” showed that lower income level of the household hindered the academic achievements of the students. Results of the study acknowledged Crookston (2011), stated that the children who belonged to wealthy family get higher scores in assessment. Florence (2008) demonstrated that girls who belonged to socioeconomically wealthy families have higher performance than boys. It means that economy lessens the food security issues and improves the living standard of the people; and this high socioeconomic status gives them better educational environment. So government should take solid steps to alleviate poverty from the society.

The regression coefficient \( b_i = 0.306 \) for the independent variable “crowded demographic conditions” showed that the children who belonged to overcrowded family have poor academic performance. Outcomes acknowledged Crookston (2011), stated that the children who belonged to smaller size family get higher scores in assessment. Mian (2002) explained that larger household size was a major threat to malnutrition and malnutrition lowers the academic performance as described by Chinyoka (2014).
means that small size of the family makes it easy for the parents to provide proper nutrition and better academic environment to their children because small size reduces the expenditures of the family; so government should make the laws about the size of family.

6. Conclusion
The results of the study show that the unhealthy dietary patterns, particularly the excessive use of low quality food and junk food which increases the diseases among learners. This situation of illness of learners decreases the academic performance in terms of reducing attendance rate as well as reduce the attainment level of the learners as explained by Chinyoka (2014) also that malnutrition minimize the attendance rate and concentration level. These results lies very close to the findings of Fu (2007), Florence (2008) & Ogunsile (2012) that the students who eat low quality diet and follow unhealthy dietary patterns found to be poor performers in the routine school tests and had overall lower performance in the school. The students suffering from malnutrition cannot participate actively in games and extra–curricular activities due to their weakness and laziness. Results show that the students’ who participate less in physical activities show poor performance in the academics and these results are found in the line of the results explored by Trudeau (2008) that the participation in physical activity enhanced the memory and concentration level of the learners and ultimately the performance in schools. The results of the study also reveal that the low income of the household and crowded demographic situation also lowers the academic performance of the students, these results are found similar to the results of the research by Crookston (2011) which stated that the Children who belonged to wealthy and smaller size family get higher scores in assessment.

7. Recommendations
The following suggestions and recommendations come out directly from the outcomes of the study described above.

- Government should launch awareness programs for public about the adverse effects of malnutrition.
- Parents should manage lunch boxes for the children and discourage the eating of low quality and junk foods and strict ban should be imposed on the sale of low quality foods, junk foods, energy drinks and other cold drinks at the canteens of schools.
- The quality of food items for the children should be improved by making and implementing strict laws and rules.

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The Causal Nexus of Urbanization, Industrialization, Economic Growth and Environmental Degradation: Evidence from Pakistan

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ABSTRACT

The paper analyzes the causal relation between economic growth, urbanization, industrialization and environmental degradation of Pakistan. The study used time series data for the sample span of 1975-2017, retrieved from World Bank Development Indicators (WDI, 2017). Vector Auto Regressive (VAR) model is used for analyzing the causal link amongst the variables, namely economic growth, urbanization, industrialization and environmental degradation. The Granger causality test is used for identifying the order of the causal association. Before estimating VAR, Augmented Dickey Fuller (ADF) as well as Phillips Perron (PP) tests are used for confirming the stationarity characteristic of all variables, first with intercept and then, with intercept along with a linear deterministic trend. Akaike Information Criterion (AIC) is used for selection of optimum lag. The Johansen Cointegration test is adopted for identifying long run associations. The result of the VAR model reveals, if any innovation of one standard deviation from outside the model occurred, it will take about 13 years for CO2, 19 years for urbanization, 16 years for industrialization and about 12 years for economic growth in adjustment. These results further indicate that most of the variation in all variables is explained in their own. The study confirmed two unilateral causalities, that is runs from CO2 to urbanization as well as economic growth. The findings of the research work propose that policy makers required to develop policy helpful to the environment which will encourage verifiable economic growth in Pakistan. The policy makers need to plan for environmental issue while making policies regarding urbanization, industrialization and economic growth.

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1. Introduction

Carbon Dioxide (CO2) emission is a major component of Green House Gas (GHGs) emissions that is a major factor behind global warming and degradation of natural environment. Environmental degradation
increases since the 19th century, with the increasing trend of urbanization and industrialization so the issue of environmental degradation and its relationship with urbanization and industrialization has got much attention from researchers both in developed and developing countries.

Pakistan is also facing a higher trend of urbanization with 207.77 million population, it has become the sixth most populous country in the world. The major reason behind the trend is the increase growth rate of population as well as migration. The rate of urbanization in Pakistan is 36.38%, which is projected to reach at 50% in the upcoming 15 years (Afzal et al., 2018). As much as industrial growth is concerned, it remains poor throughout the history. The government wants to achieve high growth rate of industrialization which is not satisfactory at present due to political instability, high tax burden and energy crisis. The economic growth of Pakistan remains volatile throughout the history (Pakistan Economic Survey, 2016-17). The main objective of the study is to analyze empirically causal link in economic growth, urbanization, industrialization with environmental degradation.

The rest of the paper is organized into five sections. Section 2 consists of the previous literature. Section 3 is about the data along with methodology. Section 4 presents the empirical results whereas Section 5 concludes the study and presents some policy implications.

2. Literature Review
Rich empirical work has been done on analyzing the causal link of many variables with CO₂ emissions like, Liu and Bae (2017) analyzed the causal association between industrialization, urbanization, per capita real GDP, intensity of energy with CO₂ emissions, and confirmed the long-term bidirectional causalities in industrialization, per capita real GDP with CO₂ emissions. Sarkodie and Owusu (2017) studied the causal link between industrialization, population, per capita GDP along with CO₂ emissions through the Granger causality test, and confirmed a unidirectional causal association of industrialization to per capita GDP, from population to industrialization as well as per capita GDP, from population towards CO₂ emissions. Al-Mulali and Ozturk (2015) confirmed the causal link in industrial development, urbanization and energy use both in the short and long time period. Kasman and Duman (2015) used data of new European Union member countries and confirmed a unidirectional causal association of urbanization with CO₂ emissions. Likewise, Liddle and Lung (2014) found the same association in CO₂ emissions and urbanization for 105 countries, but they were unable to found granger causality in case of urbanization and electricity consumption.

Another group of researchers studied the causal link in economic growth, urbanization, with CO₂ emissions like, Xuemei et al. (2012) found a close relationship between these variables as confirmed, economic growth promotes urbanization and vice versa. Yansui et al. (2016) used data of China for the period of 1997 to 2010, studied the link between CO₂ emissions with economic growth as well as urbanization. The work was based on Panel co-integration test along with granger causality. The result showed the studied variables increase CO₂ emissions there. The results also suggested a two-way long term association in the variables, meaning that urbanization has causal effect over economy growth in the long period and these have a causal association with CO₂ emissions too. Jebli et al. (2015) found two-way causal association for economic growth with CO₂ emissions for 24 economies in Sub Saharan Africa, in the span of 1980 to 2010. The analysis was based on panel co-integration technique. Mingxing et al. (2014) presented a two-way causality of urbanization with economic growth. The conclusion of Xuemei et al., (2012) were also the same. Most of the studies are conducted on panel data for analyzing the causal association between urbanization, economic growth with CO₂ emissions like, Al Mulali et al. (2015) used heterogeneous panel data of 129 states for the span of 1980 to 2011. The researchers used economic growth, financial growth, urbanization, as well as CO₂ emissions in analysis. Interestingly, the result of Granger causality showed that due to financial development, all the variables have a direct impact on the environment, in the short and long run meaning that these variables does not increase CO₂ emissions. Al Mulali and Ozturk (2015) worked for 14 MENA states for the span of 1996 to 2012. The results of Granger causality confirmed short term and long term causal link among urbanization, industrial
development and environmental degradation.

Literature also analyzed a causal link of energy use with CO\textsubscript{2} emissions based on the idea that economic growth increases energy use that results to CO\textsubscript{2} emissions increase. Wang et al. (2011) used data of 28 provinces of China and presented bidirectional causality in economic growth, energy use with CO\textsubscript{2} emissions. Li and Cheng (2006) confirmed two-way causality for urbanization and economic growth whereas a Shahbaz et al. (2014) confirmed, urbanization along with economic growth causes increase in CO\textsubscript{2} emissions. Likewise, Yazdi and Shakouri (2014) used data of Iran for the period from 1975 to 2011 and worked on the association in energy consumption, economy growth, urbanization with CO\textsubscript{2} emissions. The study found a one-way causal linkage from urbanization towards CO\textsubscript{2} emissions. Vidyarthi (2014) worked on the data of five states of South Asian for the span of 1972 to 2009 and found a two-way association in economic growth with energy use, whereas a one-way causal association of CO\textsubscript{2} emissions with energy use. Omri (2013) used simultaneous equations model for studying the same association in MENA states, confirmed a two-way causal association for economic growth with energy use, whereas a one-way causal association of economic growth with CO\textsubscript{2} emissions. Likewise, Ang (2009) concluded that economic growth along with energy use contributes CO\textsubscript{2} emissions in China, Zhang and Cheng (2009) conducted a multivariate causal study in China and concluded a unidirectional causal association for energy use towards CO\textsubscript{2} emissions but not contributed towards economic growth. In addition, Hwang and Yoo (2014) concluded in Indonesia a two-way causal association in energy use with CO\textsubscript{2} emissions. For Saudi Arabia, Alshehry and Belloumi (2015) whereas for French, Ang (2007), confirmed a causal association in energy usage, economic growth with CO\textsubscript{2} emissions. Apart from this, Ang (2007), confirmed a causal association in the period of 2007-2010 found this association in ASEAN economies. Lotfalipour et al. (2010) presented a one-way causal association in energy use, gross domestic product with CO\textsubscript{2} emissions.

Interestingly, Samuel and Abu (2017) found a trade-off for economic growth with CO\textsubscript{2} emissions for Nigeria. They found that whenever GDP per capita increases, it also increases CO\textsubscript{2} emissions while when CO\textsubscript{2} emissions increase, it did not contribute to economic growth. In Pakistan, studies like Mukhopadhyay and Chakraborty, (2005); Bukhari, (2012) has done on the impact of macroeconomic variables such as trade openness, population growth, urbanization on environmental degradation. Aqiel and Aqiel (2014) found a one-way causal association among GDP, population growth, energy usage with CO\textsubscript{2} emissions.

In table 1 the summary of the previous research work done about the causality in economic growth, urbanization, industrialization with CO\textsubscript{2} emissions for developed as well as developing countries is presented. The purpose of the present work is to analyze the causal link in CO\textsubscript{2} emissions, urbanization, economic growth and industrialization in case of Pakistan.

Table: 1 Summary of research work done about causality in economic growth, urbanization, industrialization, and environmental degradation

<table>
<thead>
<tr>
<th>Authors</th>
<th>Sample and time period</th>
<th>Variables</th>
<th>Methodology</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhang and Cheng (2009)</td>
<td>China (1960-2007)</td>
<td>CO\textsubscript{2} emissions, GDP, energy use</td>
<td>multivariate model, Granger causality test</td>
<td>Unidirectional causal association of GDP with energy use, of energy use with CO\textsubscript{2} emissions</td>
</tr>
<tr>
<td>Hossain (2011)</td>
<td>Newly industrialized countries (1971-2007)</td>
<td>CO\textsubscript{2} emissions, energy use, Economic growth, urbanization.</td>
<td>Fisher panel cointegration test, Granger causality test</td>
<td>Unidirectional relationship of urbanization with economic growth. Unidirectional relationship found of economic growth with CO\textsubscript{2} emissions, urbanization, as well as energy consumption</td>
</tr>
<tr>
<td>Authors</td>
<td>Sample Size / Locations</td>
<td>Variables</td>
<td>Methodology</td>
<td>Findings</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unidirectional causal association of CO₂ emissions with GDP.</td>
</tr>
<tr>
<td>Liddle and Lung. (2014)</td>
<td>105 countries (1971-2009)</td>
<td>CO₂ emissions, Urbanization, electricity use</td>
<td>Cointegration, Granger causality test</td>
<td>Granger causality from urbanization to electricity usage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unidirectional causal association in energy use with CO₂ emissions in long term.</td>
</tr>
<tr>
<td>Alshehry and Belloumi (2015)</td>
<td>Saudi Arabia</td>
<td>CO₂ emissions, Economic growth, energy prices, energy use</td>
<td>Granger causality test</td>
<td>Unidirectional relationship exists from emissions of CO₂ to price of energy and economic growth in short period.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unidirectional causal association in energy use, emissions of CO₂ emissions and GDP in long period.</td>
</tr>
<tr>
<td>Asjad and Aqeel (2014)</td>
<td>Pakistan</td>
<td>CO₂ emissions, GDP per capita, energy consumption, population growth.</td>
<td>Granger causality test</td>
<td>Unidirectional causality found in the variables</td>
</tr>
<tr>
<td>Saidi and Hammami (2015)</td>
<td>six oil-exporting countries (1990-2012)</td>
<td>CO₂ emissions, GDP, energy usage.</td>
<td>GMM model Bootstrap panel Granger causality test</td>
<td>Two way granger causality for UAE for economic growth and CO₂.</td>
</tr>
<tr>
<td>Al-Mulali and Ozturk (2015)</td>
<td>Fourteen MENA states (1962-2012)</td>
<td>Urbanization, energy use, industrial development.</td>
<td>fully modified OLS, Granger causality test</td>
<td>All the variables have short and long term causalities.</td>
</tr>
<tr>
<td>Sarkodie &amp; Owusu (2017)</td>
<td>Rwanda (1965-2011)</td>
<td>CO₂ emissions, GDP per capita, population, industrialization.</td>
<td>ARDL, Granger causality test</td>
<td>Unidirectional causality found for industrialization to per capita GDP, population towards GDP per capita, population towards industrialization, population towards CO₂ emissions.</td>
</tr>
<tr>
<td>Liu and Bae (2018)</td>
<td>China (1970-2015)</td>
<td>CO2 emissions, real GDP, industrialization, urbanization, energy consumption.</td>
<td>ARDL, VECM</td>
<td>All variable have positive impact on CO₂ emissions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Granger causality exists in Industrialization, energy consumption and CO₂</td>
</tr>
</tbody>
</table>

3. Data and Empirical Method
3.1 Data Source and Variables
The research study is based upon time series data for the span of 1975 to 2017 that is retrieved from World Bank Development Indicators (WDI, 2017). The main variables that are employed in the study are economic growth, which is represented by a percentage growth in real GDP, urbanization represented by urban population as a percentage of the total population, industrialization represented by industry including construction value added whereas for environmental degradation, CO₂ emissions is used as a proxy. VAR model is used for identifying causalities among the macroeconomic variables, namely economic growth, urbanization, industrialization, CO₂ emissions with granger causality test for identifying the directions of causalities in the studied variables.

3.2 Model Specification
The causal link between CO₂ emissions with macroeconomic variables has been analyzed by different econometric techniques. The present study follows the analytical techniques used by Zhao and Wang (2015). Prior to conducting econometric techniques, the data are analyzed for stationarity through Augmented Dickey-Fuller (1979) along with Phillips and Perron(1988) tests, both with intercept and with a linear deterministic trend. Stationarity of the variables allow us to use co-integration test for identifying long run association in the variables. For this purpose, Johansen co-integration (1991, 1995) test is used. The Impulse Response Function (IRF) and variance decomposition is used to examine the vibrant impact of the errors on the variable’s system. Granger causality test is used for identifying the direction of causality amongst the variables.

The paper deals with the empirical investigation of the causal relationship between economic growth, urbanization, industrialization and environmental degradation using Pakistan data. We hypothesis our model for empirical analysis pursuing Zhao and Wang (2015), Liddle, B., & Lung, S. (2014). More specifically, the general functional form the model is:

\[
CO_{2t} = \alpha_{it} + \sum_{j=1}^{k} \alpha_j U_{r_{t-j}} + \sum_{j=1}^{k} \beta_j I_{nd_{t-j}} + \sum_{j=1}^{k} \gamma_j CO_{2t-1,j} + \sum_{j=1}^{k} \delta_j E_{g_{t-j}} + \mu_t \tag{i}
\]

\[
U_{rt} = \alpha_{it} + \sum_{j=1}^{k} \alpha_j U_{r_{t-1}j} + \sum_{j=1}^{k} \beta_j I_{nd_{t-j}} + \sum_{j=1}^{k} \gamma_j CO_{2t-1} + \sum_{j=1}^{k} \delta_j E_{g_{t-j}} + \mu_t \tag{ii}
\]

\[
I_{ndt} = \alpha_{it} + \sum_{j=1}^{k} \alpha_j U_{r_{t-j}} + \sum_{j=1}^{k} \beta_j I_{nd_{t-j}} + \sum_{j=1}^{k} \gamma_j CO_{2t-1,j} + \sum_{j=1}^{k} \delta_j E_{g_{t-j}} + \mu_t \tag{iii}
\]

\[
E_{gt} = \alpha_{it} + \sum_{j=1}^{k} \alpha_j U_{r_{t-j}} + \sum_{j=1}^{k} \beta_j I_{nd_{t-j}} + \sum_{j=1}^{k} \gamma_j CO_{2t-1} + \sum_{j=1}^{k} \delta_j E_{g_{t-1}} + \mu_t \tag{iv}
\]

Where CO₂ is representing Carbon Dioxide Emissions, Ur represents urbanization, Ind stands for industrialization, Eg represents economic growth, k represents lag length and ut represents error term.

3.3 Empirical Results
- Result of ADF and Phillips- perron (PP) unit root tests

For stationarity analysis, we use Augmented Dickey-Fuller (ADF) 1979 and Phillips and Peron (1988) tests. The mathematical form of ADF test is

\[
\Delta z_t = \partial z_{t-1} + \delta \sigma + \epsilon_t \tag{v}
\]

Where \( \partial = \rho - 1 \) -1 ≤ ρ ≤ 1, with hypothesis as under:

\[
H_0: \partial = 0 \text{ or } \rho = 1
\]

\[
H_1: \partial < 0 \text{ or } -1 \leq \rho < 0
\]

Phillips- Perron (PP) test is used to adjust the coefficient (t-ratio) of the ADF test, when test statistic distribution got affected by any serial correlation. The PP test is presented as
\[ t'_{\theta} = t_{\theta} \left( \frac{\gamma_0}{f_0} \right)^{1/2} - \frac{T(f_0 - \gamma_0) \left( se(\theta) \right)}{2 f_0^{1/2} s} \]  

(\text{vi})

Where \( \gamma_0 \) is the appraisal of error variance while \( f_0 \) is the zero occurrence of error. Table 2 represents the results of the above mentioned tests. The table shows that economic growth is stationary at level whereas urbanization, industrialization as well as CO\textsubscript{2} emissions were non stationary that are converted into stationary after taking the first difference in both tests.

### Table. 2 Results of Unit root test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Result of ADF test</th>
<th>Result of PP-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intercept</td>
<td>Intercept and **</td>
</tr>
<tr>
<td></td>
<td>Trend</td>
<td></td>
</tr>
<tr>
<td>Eg</td>
<td>-11.136*</td>
<td>-11.910*</td>
</tr>
<tr>
<td>Ur</td>
<td>0.379</td>
<td>-0.818</td>
</tr>
<tr>
<td></td>
<td>-7.281*</td>
<td>-7.306*</td>
</tr>
<tr>
<td>Ind</td>
<td>-2.511</td>
<td>-2.705</td>
</tr>
<tr>
<td></td>
<td>-7.210*</td>
<td>-7.174*</td>
</tr>
<tr>
<td>CO\textsubscript{2}</td>
<td>-2.235</td>
<td>-2.149</td>
</tr>
<tr>
<td></td>
<td>-7.627*</td>
<td>-8.259*</td>
</tr>
</tbody>
</table>

*Significant at 1% significance level

### 3.4 Cointegration Test

For identifying the presence of long term association in the used variables, Johansen(1988) presented two likelihood ratio tests that are maximum Eigen value and trace statistics. These tests are represented in two equations:

\[
J_{\text{max}} = -T \ln \left( 1 - \lambda_{r+1} \right) \\
J_{\text{trace}} = -T \sum_{i=r+1}^{n} \ln(1 - \lambda_i)
\]

(vii)

(viii)

Where in \( T \) both equations represent the size of the sample, \( \lambda_i \) is the \( i \)th largest known associations. Table 3 shows the results of cointegration test. The results show that for all 4 variables, the null hypothesis of no cointegration is rejected at 1% significance level.

### Table. 3 Results of Cointegration test

<table>
<thead>
<tr>
<th>N.Hypothesis</th>
<th>A. Hypothesis</th>
<th>Trace Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>r = 0</td>
<td>r = 1</td>
<td>73.92*</td>
</tr>
<tr>
<td>r \leq 1</td>
<td>r = 2</td>
<td>31.84*</td>
</tr>
<tr>
<td>r \leq 2</td>
<td>r = 3</td>
<td>17.74*</td>
</tr>
<tr>
<td>r \leq 3</td>
<td>r = 4</td>
<td>6.74*</td>
</tr>
</tbody>
</table>

Levels of significance: *\( p < 0.01 \)

### 3.5 Impulse Response Function (IRF) Results

IRF is used to know about the response of dependent variables to any change or innovation in error term. Figure (1) presents the estimation of 4 variables that are, CO\textsubscript{2} emissions, urbanization, industrialization, economic growth in IRF terms to unitary innovation or shock from outside. The graphs show that if one standard deviation innovation or shock occurs from outside, the CO\textsubscript{2} will takes 13 years, urbanization will takes 19 years, industrialization will take 16 years and economic growth will takes 12 years to
absorb the shocks.

Figure 1. Response of Variables to impulses of 1 standard deviation innovation

3.6 Variance Decomposition Results

Variance decomposition analysis is used to identify that how much of the variations in dependent variable are lagged by there own variance and by other variables. Table 4 shows the variance decomposition of the employed variables. The first group referred to the values of variance decomposition of CO\textsubscript{2}. The values of standard error (S.E) values which is explained by CO\textsubscript{2} itself ranging from 100\% to 82\%. Economic growth is also explaining much of variations in CO\textsubscript{2}, ranging from 4.09\% to 8.52\%. Similarly, the variation in CO\textsubscript{2} explained by industrialization and urbanization are ranging from 0.62\% to 7.62\% and 0.02\% to 1.74\% respectively. The second group represents the values of variance decomposition of urbanization. The values of standard error explained by urbanization itself, ranging from 99\% to 94\%. The second variable that explains most of the variation in urbanization is economic growth that explains 3.57\% to 3.84\% variation. Similarly, CO\textsubscript{2} explains 1.04\% to 0.95\% variation and industrialization explained 0.06\% to 0.89\% variation in urbanization. In a similar way the values of the variance decomposition for industrialization and economic growth can be interpreted.

Table 4. Values of Variance Decomposition

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>CO\textsubscript{2}</th>
<th>Ur</th>
<th>Ind</th>
<th>Eg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0687</td>
<td>100.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>2</td>
<td>0.0713</td>
<td>95.2936</td>
<td>0.0012</td>
<td>0.6159</td>
<td>4.0894</td>
</tr>
<tr>
<td>3</td>
<td>0.0725</td>
<td>92.4464</td>
<td>0.0224</td>
<td>0.6217</td>
<td>6.9096</td>
</tr>
<tr>
<td>4</td>
<td>0.0751</td>
<td>86.4072</td>
<td>1.1595</td>
<td>3.9799</td>
<td>8.4535</td>
</tr>
<tr>
<td>5</td>
<td>0.0757</td>
<td>85.6066</td>
<td>1.4681</td>
<td>4.1379</td>
<td>8.7914</td>
</tr>
<tr>
<td>6</td>
<td>0.0769</td>
<td>83.2002</td>
<td>1.5832</td>
<td>6.6833</td>
<td>8.5333</td>
</tr>
<tr>
<td>7</td>
<td>0.0761</td>
<td>83.0070</td>
<td>1.6455</td>
<td>6.7951</td>
<td>8.5524</td>
</tr>
<tr>
<td>8</td>
<td>0.0772</td>
<td>82.4011</td>
<td>1.7333</td>
<td>7.3760</td>
<td>8.4896</td>
</tr>
<tr>
<td>9</td>
<td>0.0774</td>
<td>82.2217</td>
<td>1.7296</td>
<td>7.5311</td>
<td>8.5168</td>
</tr>
<tr>
<td>10</td>
<td>0.0774</td>
<td>82.1319</td>
<td>1.7361</td>
<td>7.6154</td>
<td>8.5158</td>
</tr>
</tbody>
</table>
Variance Decomposition of Ur

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>CO\textsubscript{2}</th>
<th>Ur</th>
<th>Ind</th>
<th>Eg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0026</td>
<td>1.0421</td>
<td>98.9578</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>2</td>
<td>0.0027</td>
<td>0.9951</td>
<td>95.3750</td>
<td>0.0642</td>
<td>3.5657</td>
</tr>
<tr>
<td>3</td>
<td>0.0030</td>
<td>0.7886</td>
<td>96.1344</td>
<td>0.0702</td>
<td>3.0068</td>
</tr>
<tr>
<td>4</td>
<td>0.0031</td>
<td>0.9367</td>
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<td>5</td>
<td>0.0032</td>
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<td>94.7619</td>
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</tr>
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<td>6</td>
<td>0.0032</td>
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<td>94.3198</td>
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</table>

Variance Decomposition of Ind

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>CO\textsubscript{2}</th>
<th>Ur</th>
<th>Ind</th>
<th>Eg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0561</td>
<td>0.1296</td>
<td>6.7216</td>
<td>93.1488</td>
<td>0.0000</td>
</tr>
<tr>
<td>2</td>
<td>0.0576</td>
<td>0.4288</td>
<td>6.9157</td>
<td>90.1731</td>
<td>2.4824</td>
</tr>
<tr>
<td>3</td>
<td>0.0635</td>
<td>0.6687</td>
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<td>89.2175</td>
<td>2.2329</td>
</tr>
<tr>
<td>4</td>
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<td>0.6779</td>
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<td>88.4470</td>
<td>2.5718</td>
</tr>
<tr>
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<td>0.7038</td>
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<td>88.3215</td>
<td>2.7491</td>
</tr>
<tr>
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<td>2.8198</td>
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<td>0.7221</td>
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<tr>
<td>9</td>
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<td>0.7214</td>
<td>8.1986</td>
<td>88.2390</td>
<td>2.8411</td>
</tr>
<tr>
<td>10</td>
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</table>

Variance Decomposition of Eg

<table>
<thead>
<tr>
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<th>S.E.</th>
<th>CO\textsubscript{2}</th>
<th>Ur</th>
<th>Ind</th>
<th>Eg</th>
</tr>
</thead>
<tbody>
<tr>
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<td>25.6034</td>
<td>13.3006</td>
<td>59.4304</td>
</tr>
<tr>
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<td>23.7860</td>
<td>11.2723</td>
<td>57.0382</td>
</tr>
<tr>
<td>3</td>
<td>0.5935</td>
<td>10.5154</td>
<td>24.0396</td>
<td>12.6282</td>
<td>52.8167</td>
</tr>
<tr>
<td>4</td>
<td>0.6065</td>
<td>10.6401</td>
<td>23.0406</td>
<td>15.4812</td>
<td>50.8382</td>
</tr>
<tr>
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<td>10.5116</td>
<td>24.1891</td>
<td>15.2418</td>
<td>50.0574</td>
</tr>
<tr>
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<td>0.6161</td>
<td>10.4247</td>
<td>24.2526</td>
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<td>49.6854</td>
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<tr>
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<td>24.4099</td>
<td>15.5591</td>
<td>49.5976</td>
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<tr>
<td>8</td>
<td>0.6192</td>
<td>10.4328</td>
<td>24.2954</td>
<td>15.8647</td>
<td>49.4071</td>
</tr>
<tr>
<td>9</td>
<td>0.6197</td>
<td>10.4274</td>
<td>24.3282</td>
<td>15.9044</td>
<td>49.3400</td>
</tr>
<tr>
<td>10</td>
<td>0.6199</td>
<td>10.4211</td>
<td>24.3461</td>
<td>15.9235</td>
<td>49.3094</td>
</tr>
</tbody>
</table>

Cholesky ordering: CO\textsubscript{2} Ur Ind Eg

3.7 Granger Causality Results

Granger causality test (1969) is adopted for identifying the directions of causal link in these variables. Once, long run cointegration is confirmed in variables, then the Granger unidirectional or bidirectional causality test can make clear the direction between the used variables Feng et al. (2009). The estimates of granger causality are given in table5. The results identify two unilateral causalities. One is running from CO\textsubscript{2} to urbanization and the other is from CO\textsubscript{2} to economic growth.

Table 5. Results of Granger Causality

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-ratios</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UR ≠ CO\textsubscript{2}</td>
<td>1.83816</td>
<td>0.1737</td>
</tr>
<tr>
<td>CO\textsubscript{2} ≠ UR</td>
<td>5.81056</td>
<td>0.0065</td>
</tr>
<tr>
<td>IND ≠ CO\textsubscript{2}</td>
<td>0.39351</td>
<td>0.6776</td>
</tr>
<tr>
<td>CO\textsubscript{2} ≠ IND</td>
<td>0.25946</td>
<td>0.7728</td>
</tr>
</tbody>
</table>
### 4. Concluding Remarks

Economic growth is the desire of every country. The role of urbanization and industrialization cannot be ignored in the growth process of a country. The macroeconomic variables urbanization, industrialization, economic growth are associated with CO₂ emissions too. The purpose of this work is to analyze any causal association in urbanization, industrialization, economic growth with CO₂ emissions. The results of VAR model indicate that if innovation of 1 standard deviation is given, it takes about 13 years for CO₂, 19 years for urbanization, 16 years for industrialization and 12 years for economic growth to adjust. It follows that in Pakistan the policies regarding economic growth, industrialization, urbanization and CO₂ emissions are not effective as it takes much longer time to adjust. Furthermore, the case of urbanization is much alarming, therefore special attention is needed in policy formulation for urbanization, and further the policy must be objective oriented and also proper check on its implementation is required. In addition, for all variables, the causality result indicates that the response of every variable to their own shock/innovation was much better as compare to shock in other variables. Granger causality results identify only two unilateral causalities, that is from CO₂ emissions towards economic growth, and urbanization. There found no bidirectional causality and independent type relationships were found in economic growth and urbanizations, economic growth with industrialization, urbanization with industrialization and industrialization with CO₂ emissions. The issue of CO₂ emissions must not be ignored at the time of framing policy for industrialization.

### References


Developing English Speaking Skill Indigenously among the Prospective Teachers

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ARTICLE DETAILS

ABSTRACT

Present research experimentally studied the effectiveness of indigenously developed Content and Language Integrated Modular Approach (CLIMA) especially designed for developing English language ability among university students. CLIMA is a blend of Content and Language Integrated Approach and the Modular Approach. Two equated groups of total 52 students from Bachelor of Education Programme (semester-I) participated in this randomised pre-test post-test control group experiment. The content used herein comprised a purposefully designed module of 5 units. Both groups were taught by the same specifically trained teacher on same days with an interval of one hour between the sessions with the two groups. Experiment was completed in 30 sessions (1.5 hour each) during 10 weeks. For both pre- and post-testing, the researchers used the Analytic Rubric of Fairfax County Public Schools (Virginia, USA). This Analytic Rubric has been termed as the Performance Assessment for Language Students (PALS). The experimental group witnessed (pre-testing = 31.6%, post-testing = 80.8%) a value addition of 49.2%; and the control group witnessed (pre-testing = 31.2%, post-testing = 66.2%) a value addition of 35.0%. Compared with TOEFL and IELTS, conclusively, CLIMA was found highly effective. Results are discussed in detail in the paper.

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1. Introduction

The faculty of speech distinguishes human race from the rest of the creation as it is one of the greatest blessings endowed upon man (Wilson, 2012). Better oral communication in English has been the passport to indigenous, global, cyber and virtual markets. Better proficiency in English speaking has also been a rewarding aspect for the diaspora communities.

The study will be useful for the students and English language teachers (ELT) interested in the fields like sociolinguistics, psycholinguistics, applied linguistics, and English for Specific Purposes (ESP). The study will bring awareness among prospective teachers and teacher trainers about the standards and benchmarks for oral proficiency in English which are being followed internationally. The study will provide a model to the teacher education for the development of a module for English speaking skills which will be quite different from other existing modules. The current study may be very helpful for the subject teachers (Non-language teachers-teachers of education in the current case) to teach English
language as effectively as English teachers teach the language.

2. Literature Review

English speaking skills are the essential standard for teachers in all of the countries where English is regarded as second, foreign or official language. Pakistan is among the countries where English is used as official language and the medium of instruction as well. The system of education in Pakistan still maintains the significance of English as medium of instructions. Therefore, competence in communication skills, especially, the speaking skills are required in academics at levels from grade 1 to PhD.

In Pakistan, the level of English speaking proficiency has been reported very low among teacher education graduates (Alam, 2012; Bilal, Rehman, Rashid, Adnan, & Abbas, 2013; Coleman, 2010; Shahzad, Ali, Qadeer, & Ullah, 2011). It is not the issue of weak students only, even the high achievers in English written examination cannot speak English correctly (Bilal et al., 2013; Karim, 2012). There are many reasons of low level of speaking proficiency of graduates of teacher education in Pakistan including non-availability of quality teaching material and lack of assessment practices of spoken proficiency (Bilal et al., 2013; Tariq, Bilal, Sandhu, Iqbal, & Hayat, 2013). The content which is used to teach spoken skills to prospective teachers was mostly developed and contextualised in western culture (Tariq et al., 2013) and has not been so far adapted appropriately. The choice of any language teaching content must be made by giving due consideration to local culture and context. The use of subject matter as content in spoken language teaching improves motivation as well as achievement of prospective teachers (Khushi & Talaat, 2011). There is need to develop local subject matter based learning material for improving spoken English proficiency in Pakistan (Coleman, 2010).

Teachers are expected to be proficient and skilful speakers (Aslam, 2011; Cammarata, 2010). Speaking proficiency of the students depends much on the communication ability of the teachers. If the teacher in the classroom is deficient in oral communication, the students will also be deficient in speaking. If the teacher has wrong pronunciation, lacks fluency, grammatically incorrect and he/she does not have proper intonation, the students will certainly display all of these errors in the spoken English because they copy their teacher. That is why, effective communication skill is regarded as one of the professional standards for the teachers all over the globe (Aslam, 2011; Government-of-Pakistan, 2009) because excellent speaking makes excellent teacher (Aslam, 2011; Cammarata, 2010).

In teacher education, the need for proficiency in English speaking skills is growing consistently in rapidly changing world at global level. The teaching and learning of English speaking skills (ESS) through Content and Language Integrated Learning Module is becoming admired internationally. Modular approach used for the teaching and learning of English Language skills is more fruitful than traditional methods of teaching and learning of English Language skills. But in Pakistan, English Language and English speaking skills, is taught through the traditional methods; and traditional syllabuses ignored specific needs of individuals regarding learning language. So, the present research filled the gap between the existing and required levels of English speaking proficiency of prospective teachers. The current study also explored the effectiveness of the Content and Language Integrated Module made for improving the English speaking skills of future teachers.

Current study will be significant in such a way that the specific module for the development of English speaking skills is expected to influence positively the other areas/fields of knowledge like Sociology, Psychology, Philosophy and Research Methodology in the making of contextualized modules. This study may serve as a reference to all – curriculum planners, teachers, students, employers and all other stakeholders in educational set up by providing them guidelines and presenting a valid document for how to design curricula for English speaking skills and how to develop, select and organize the learning/teaching material with special focus on the needs of the learners.
3. Methodology
To find out the effectiveness of the module for developing English speaking skills of prospective teachers, the researchers selected the Randomised Equated Pre-Test Post-Test Control Group Experimental Design. The experiment was conducted upon prospective teachers of first semester of Bachelor of Education program (2015-2016) from an institute of higher education (Pakistan). All of the enrolled students (52) were divided into experimental and control groups randomly.

The control group of the study was taught through the traditional way. The experimental group was taught through the Content and Language Integrated Modular Approach (CLIMA) which was developed by the researcher for this purpose after blending the two famous approaches (i.e. Content and Language Integrated Approach and Modular Approach). The teaching module (content/teaching material) used in this experiment was purposefully prepared, keeping in view the entry level and the required level of English speaking proficiency of the prospective teachers. This module consisted of 5 units.

Both groups were taught by the same specifically trained teacher on same days with a difference of one hour time interval between the sessions with the two groups. The experiment continued for 10 weeks. Entire activity of the experiment was distributed over 30 classroom sessions and each of the session was of 1 hour and 30 minutes duration.

Analytic Rubric of Performance Assessment for Language Students (PALS), prepared by Fairfax, Virginia (United States) was used for pre-testing and post-testing. The intra personal speaking proficiency (Monologue) and inter personal skill (Dialogue) were evaluated through two different performance tests, both in pre-test and post-test. Effectiveness of CLIMA was judged through the percentage of the scores in pre-testing and post-testing.

The Fairfax County Public Schools system (FCPS) came in to existence after the Civil War with the adoption by Virginia in 1870, which for the first time guaranteed free public education. FCPS has been evolving the assessment criteria. This school system has done a lot in order to establish the validity and reliability of the rating scales. FCPS has also developed the rating scales for the assessment of foreign languages. Both, discrete and holistic rating scales for the assessment of all four skills (Reading, Writing, Listening and Speaking) are available. Speaking is assessed against six indicators: task completion, comprehensibility, fluency, pronunciation, vocabulary and language control. Scoring is awarded from 1 to 4 with - and +. The raw scores are converted to percentage by the use of “A Conversion Chart” The FCPS rating scales have three levels namely level-1, level-2 and level-3

According to Shrum (2015), an effective example of performance-based assessment is the Performance Assessment for Language Students (PALS) project in Fairfax County, Virginia, the purpose of which is to design and implement performance tasks and evaluate the abilities of language learners. In order to design assessments that focus on what students know and can do in the foreign language, a task force of Fairfax County language teachers created a variety of performance tasks that place students in real-life situations in which they need to use the language. The tasks, together with scoring criteria, were developed and used for both formative and summative assessment purposes. “Tasks were designed so that they would “engage students in simulated real world tasks; have more than one right answer; reward skill development, creativity, and linguistic accuracy; promote problem-solving skills and tap higher-level thinking skills (especially in upper levels); and let the students know how their performance will be evaluated before they perform the tasks” (pp. 191–192).
4. Results
The experimental group shows magnanimous development from pre-testing (31.6%) to post-testing (80.8%) with a value addition of 49.2%. The control group also witnesses the noticeable development from pre-testing (31.2%) to post-testing (66.2%) with a value addition of 35.0%. Both groups discern development in their speaking skills such a way that the magnitude of skill development in experimental group is admirable.

Comparing vertically, the difference between the experimental and the control group is +0.4% in pre-testing which expanded to +14.6 in post-testing. The net difference of +14.2 is recorded between the two groups, which is indeed laudable.

Table 1: Performance Assessment (percentage scores)

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test Score (%)</th>
<th>Post-Test Score (%)</th>
<th>Value Addition</th>
<th>Reference Value IELTS/TOEFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>31.6</td>
<td>80.8</td>
<td>49.2</td>
<td>67</td>
</tr>
<tr>
<td>Control Group</td>
<td>31.2</td>
<td>66.2</td>
<td>35.0</td>
<td>67</td>
</tr>
<tr>
<td>Difference</td>
<td>+0.4</td>
<td>+14.6</td>
<td>+14.2</td>
<td></td>
</tr>
</tbody>
</table>

Conclusively the study discovered high effectiveness of the CLIMA; particularly, if these values are compared to that of the internationally accepted tests of English language i.e. TOEFL and/or IELTS which is 67% (for both). Results of pre- and post-test comparing the experimental and control groups have been discussed in detail in the paper.
Table 2: Overall English Speaking Proficiency of Prospective Teachers

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Gain Scores</th>
<th>S D</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Experimental</td>
<td>6.22</td>
<td>2.71</td>
<td>7.506</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>1.80</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>Dialogue</td>
<td>Experimental</td>
<td>3.34</td>
<td>1.38</td>
<td>6.336</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>1.24</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Monologue</td>
<td>Experimental</td>
<td>2.88</td>
<td>1.49</td>
<td>7.258</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>0.56</td>
<td>0.56</td>
<td></td>
</tr>
</tbody>
</table>

The table 2 reflects that independent samples t test was applied to compare the mean gain scores of English speaking proficiency of prospective teachers of experimental and control groups. The results indicate that, there is a significant difference between mean gain scores of the perspective teachers of experimental and control groups in the overall assessment of English speaking proficiency, in the assessment of Dialogue and Monologue. The statistical significance of difference in the mean gain scores of experimental and control groups indicates that the mean gain scores of English speaking proficiency of experimental group was better than that of control group.

The results conclusively reflect that the experiment ends very much successfully.

Table 3: Reference Scores of IELTS/TOEFL (percentage scores)

<table>
<thead>
<tr>
<th></th>
<th>All 4 Skills Required/Total (%)</th>
<th>Speaking Skill Required/Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS</td>
<td>6/9 (67)</td>
<td>6/9 (67)</td>
</tr>
<tr>
<td>TOEFL</td>
<td>80/120 (67)</td>
<td>20/30 (67)</td>
</tr>
</tbody>
</table>

Table 3 demonstrates percentage scores as a threshold of internationally accepted English language tests i.e. IELTS and TOEFL.

If we reconsider the performance of the experimental group and the control group with respect to the threshold score of IELTS and TOEFL (i.e. 67.0%), we come to confidently confirm the successfulness of the experiment above all.

5. Discussion

The fundamental objective of the current study was to find out the effectiveness of the specific module developed for the improvement of speaking skills of prospective teachers. The results of the experiment show that the module based on the Content and Language Integrated Modular Approach (CLIMA) significantly improved English speaking skills of the individuals in the experimental group.

The prospective teachers in the experimental group improved their speaking skills significantly because of the effectiveness of the CLIMA module. Effectiveness of this module owes to multiple factors. The first factor in the success of the current module is the discursiveness which is employed in its making. The current module incorporates the insights taken from English for Specific Purposes (ESP), Content and Language Integrated Language learning (CLIL) and Modular Approach (MA). All of these approaches enhance motivation, minimize language anxiety, save the capital of time and effort and ensure the active...
and productive participation of the learners and the instructor. That is why the high achievers and the low achievers in the experimental group would have improved their English speaking skills significantly.

The module used in the current study has a number of strengths. This module has blended the content area with English speaking proficiency. The speaking activities included in the module are based on a variety of subjects included in the course outline prescribed for the prospective teachers. Hence this module may lend a good support to the prospective teachers in other subjects like assessment and evaluation in education, introduction to teaching, learning theories, foundations of education etc. It may also support reflection on the learning process and this what is acknowledged by many researches (Lightbown & Spada, 2006; Gajo, 2007; Coyle, Holmes, & King, 2009; Coyle, Hood, & Marsh, 2010; Dalton-Puffer, 2008; Krashen, 1985; Lyster, 2007).

The CLIMA module, through the interactive activities, enhanced the motivation of learners. The enhanced level of motivation was remarkably noticed by the researchers; and it was also reported by the participants. Literature also reveals that acquisition of second or foreign language becomes easier and faster if motivation level of learners is set to high; and for this purpose, CLIMA module is observed as an effective tool to develop positive learning attitude among the learners (Coyle et al., 2010; Lasagabaster & Sierra, 2009; Evans & Fisher, 2009; Marsh, 2009; Macaro, 2008; Coleman, Galaczi, & Aastruc, 2007; Davies, 2004; Grenfell, 2002; Pachler, Allford, & Field, 2000; Grenfell, 2002) have made comparative studies to know the attitudes of learners towards Module for Foreign Language (MFL) and Content and Language Integrated Learning (CLIL) and concluded that the attitude of learners towards MFL deteriorated across time whereas the attitude towards CLIL remained consistently positive along with progress in the content area; and it was because of CLIL’s activity oriented approach, intrinsically.

The module used in the experiment kept the learners actively engaged in improving their English speaking skills. The CLIMA classroom became playfields for the learners to play with their speaking ability (Byrnes, 2006; Leung, 2005; Grenfell, 2002) observes that CLIL presents challenges to the learners; and these challenges activate them in cognitive and psychomotor domains. Effective communication skill is well acknowledged as one of the standards for the teachers almost everywhere in the world (Aslam, 2011; Government-of-Pakistan, 2009). Level of English speaking proficiency of teacher education graduates in Pakistan has been found very low by many researchers and experts (Coleman, 2010; Shahzad, Ali, Qadeer, & Ullah, 2011; Alam, 2012; Bilal et al., 2013b).

There are many reasons of low level of speaking proficiency of outgoing graduates of teacher education in Pakistan including non-availability of quality teaching material and lack of assessment practices of spoken proficiency (Bilal et al., 2013b; Tariq et al., 2013). The content which is used to teach speaking skills to prospective teachers was mostly developed and contextualised in western culture (Tariq et al., 2013). The choice of any language teaching content must be made by giving due consideration to local culture and context (Khushi & Talaat, 2011). The use of subject matter as content in spoken language teaching improves motivation as well as achievement of prospective teachers (Khushi & Talaat, 2011). There is need to develop local subject matter based learning material for improving English speaking proficiency in Pakistan (Coleman, 2010).

The first objective to be achieved in the current study was the development of a module for the improvement of English speaking proficiency of prospective teachers. The teaching/learning material of English language in Pakistan is developed/compiled in the form of books and anthologies (Khushi & Talaat, 2011; Sarwar, 2001). In the public sector, the functional and notional syllabuses have rarely been in use for the teaching of English as Second Language (ESL) or English as Foreign Language (EFL) (Pasassung, 2003). The books/anthologies which are being currently used for the teaching of English do not incorporate the material and techniques required for the development and assessment of speaking skills (Rubdy, 2008). Therefore, the analyses of educational situation, syllabuses and methods of teaching in relation to the development of English speaking proficiency through a specific module made room for
the experiment to be conducted and the new approach to be exercised in teacher education with special focus on the development of English speaking proficiency (Ghazi et al., 2010).

The module was made and presented to the experts. The experts discussed the content and organization of the material. The themes presented in the module were also discussed. The major allegation was against the length of the sentence. The researcher was suggested to make structure of the sentences easy by decreasing the length of the sentence as well as the length of the activities. Later on, the participants of the pilot test also suggested the researcher to modify the activity in which the length of the sentence was greater.

This module was unique in its structure and content. This module was made to cater to the needs of the market and capability of the learners. The concept and practice of need analysis are new in our situation but the literature reveals that the needs assessment in teaching and learning of English speaking proficiency has been the order of the day since 1950s. Global scenario is still dominated by the concept and practice of need analysis. The need analysis in the area of language policy reveals that English language and excellent English speaking proficiency are the valuable currency in the global market and economics of education. In teacher education, the need for proficiency in English speaking skills is growing consistently in the fast changing global world (Aslam, 2011; Cammarata, 2010).

As English has overpowered the globe, different communities learn English for different needs. The needs of a doctor of medicine are different from the needs of a business man. The need of a nurse to learn English is not the same as that of an MBBS doctor; the need of a taxi driver is not the same as that of a waiter in the hotel or a tourist guide; the need of a student of biology will not be the same as that of computer science. The need assessment in ESP has contributed to develop the scope of ESP in terms of variety and consequently a myriad of the branches of ESP exists now. Some of the branches include: English for academic purposes (EAP), English for occupational purposes (EOP), English for vocational purposes (EVP), English for medical purposes (EMP), English for business purposes (EBP), English for legal purposes (ELP), and English for sociocultural purposes (ESCP) (Belcher 2009). The current study may be labelled as English for secondary school teachers because effectiveness of the course and content is proved in the post-test and the success of the experiment owes a lot to the base line study which was conducted by the researcher during his previous research project.

The effectiveness of the current module is an evidence of the globalised validation of modern trends in concept and practice of teaching and learning through such modules. The literature clearly shows that the educational world is shifting from traditional approaches of teaching/learning to modular approaches because of its promising latent strength. In fact, modular approach teacher uses modules to teach for specific purpose like programmed instruction instead of traditional book (Mlitwa, 2010)

Another interesting element is the significant improvement in English speaking skills of prospective teachers in the control group. The reasons for such an unexpected improvement of control group may be because of some extraneous variables that might have ‘polluted’ the control group.

6. Conclusion
The Content and Language Integrated Modular Approach (CLIMA) was found effective in improving English speaking skills of prospective teachers. The module successfully bridged the gap between the initial level (31.6%) of speaking skills, measured through PALS’ Analytic Rubric, and the desired level (67% required in IELTS/TOEFL). It was concluded that the module was effective because it excellently filled the gap between the existing and the required levels of English speaking skills of prospective teachers.

As English speaking skills of the prospective teachers enrolled in the Bachelor of Education programme, at an institute of higher education (Pakistan) were improved significantly, it is hoped that this CLIMA
module may be used in teacher education programmes elsewhere.

Further research on the CLIMA module for its suitability in developing English speaking skills for other languages may be valuable.

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Is Pakistan Really a Pollution Haven Country?

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<table>
<thead>
<tr>
<th>ARTICLE DETAILS</th>
<th>ABSTRACT</th>
</tr>
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<tbody>
<tr>
<td>History</td>
<td>In this study, the Pollution Haven Hypothesis (PHH) validity has been tested for Pakistan and its impact on exports of Pakistan has been investigated as well. The PHH predicts that environmental regulations’ variability among countries affects polluting industries location and trade flows. Autoregressive Distributed Lag (ARDL) or bound test of cointegration is used to investigate the short and long-run relationships. We found positive and statistically significant short-run and long-run relationships between CO2 (proxy for lax environmental policy) and FDI inflows. Finally, Trade Balance Index (TBI) of metal and mining, primary iron &amp; steel, chemicals and rubber products does not support the PHH. While the pulp &amp; paper and the textile industry validated the existence of pollution haven effect. We can conclude that PHH does exist for Pakistan and therefore such policies are needed that encourage FDI inflows that do not adversely affect the environment.</td>
</tr>
</tbody>
</table>

Keywords
Pollution Haven Hypothesis, Foreign Direct Investment, Environmental Regulations, Autoregressive Distributed Lag, Trade Balance Index

JEL Classification:
P45, K32, K39

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DOI: 10.26710/readsv5i4.885

1. Introduction
Inflows of FDI have increased almost in every region of the world but major trend is observed towards the developing countries (Ullah, Shah, & Khan, 2014). FDI inflows to Asian region increased to $541 billion in 2016 due to significant growth in the East and South Asian Economies (World Investment Report, 2016). FDI is like a doubled-edged sword for economies as if it enhances economic growth, labor productivity and innovation but also harms environment (Wang, Gu, David, & Yim, 2013). Many developing countries are already facing severe water scarcity, poor air quality and floods. The unchecked FDI inflows may further worsen environmental conditions (Gamso, 2018; Cole & Elliott, 2005). Conversely, some studies argue that an increasing level of FDI inflows reduce the air pollution by adopting more advance technology (Kirkulak, Qiu, & Yin, 2011).

Air quality in Pakistan is deteriorating due to increase in CO2 emissions. The highest temperature
recorded in Pakistan reached to 53.5 °C in 2017 causing many deaths (Ellis, Saifi & Martinez, 2015; Wasif, 2017). Annual cost of environmental degradation has increased to Rs. 450 billion (Ali, waqas & Ahmad, 2015). The gravity of the problem can be gauged from pattern of CO2 emissions and FDI in figure 1. The graph shows that CO2 emissions in Pakistan have been showing an increasing trend over a period of time. Pakistan' emission per unit of output (emission intensity) is almost double of the average world intensity (Qureshi, 2006).

![Figure 1: FDI and CO2 Emissions in Pakistan (Compiled from the World Bank, 2017).](image)

In Pakistan, major investment has taken place in the polluted sectors of oil & gas, textile, construction, power, chemicals & transport (Board of Investment, 2018). A $33 billion investment in energy projects under the China Pakistan Economic Corridor (CPEC) of which some is based on coal is an environmental concern too. While exports are pre-requisite for economic growth, environment quality is also important for good quality of life. The larger FDI inflows coupled with the existing environmental deterioration in developing countries raise questions of pollution havens. To answer this question, this study empirically investigates the FDI-environment and trade-environment relations in case of Pakistan.

2. Literature Review

The nexuses between FDI and economic growth is explained through either endogenous growth theories (Romer, 1986) or the Environmental Kuznets Curve (EKC). Further related to FDI flows there are two prominent theories, the one is the Porter hypothesis and another is the pollution haven hypothesis (Baek & Koo, 2009). The empirical work on PHH has been generally with mixed results. Birdsall and Wheeler (1993) found contradictory results to PHH for Latin America. Levinson (1996) found that if state differences in environmental regulations are large, then pollution haven effect can be observed, however, if differences between states are very small then the pollution haven effect fades. However, Eskeland and Harrison (2003) reported that foreign firms are less polluted compared to domestic plants. Cole and Elliott (2005) used data of 59 developed and developing countries on FDI and found no evidence for PHH. Fan (2012) studied the FDI-investment decision in Chinese provinces based on environmental stringency and found no evidence that investor favor lax environmental enforcement. Keho (2015) used CO2 emission as a proxy for measuring environmental pollution and no long run effect of FDI on country's environment was found. Contrary to the above, Aliyu (2005), Hoffmann, Lee, Ramasamy, and Yeung (2005), Beak and Koo (2008), Ridzune, Avazalipour, Zandi, Saberi, Hakimipour, and Damankeshideh (2013), Noor and Ahmad (2014), and Aliyu and Ismail (2015) reported the existance of the PHH that pollution haven hypothesis existed.
3. Research Methods

Grossman and Krueger (1991) pioneered the work on PHH explaining the trade flows and environmental quality between the United States and Mexico. The Heckscher-Ohlin (H-O) and the factor endowment theories also provide a framework for trade-environment nexus and that how environmental regulations affect trade patterns and multinational investment decisions. These theories predict that country will specialize in production and exporting the products that uses the locally abundant factor. Also, they envisage environment to be treated as a productive resource and its assimilative and regenerative capacities as natural endowments. Therefore, jurisdictions with stricter environmental regulations may inflict additional cost on pollution-intensive sectors. However, such firms may relocate to the less stringent regions to gain comparative advantage (Ratnayake & Wydeveld, 1998). Following the Kolstad (2011), we present the PHH as follows:

\[ Y_t = \delta_i R_i + \beta_i X_i + \mu_{it} \] (1)

where \( Y_t \) is economic activity and could be exports, FDI or employment while \( R_t \) corresponds to environmental regulations, \( X_i \) is a matrix of other control variables and the last term \( \mu_{it} \) is the error term. Based on Asghari (2012), Hassaballa (2014), Ratnayake and Wydeveld (1998), Sarmidi, Noor and Ridzuan (2015), Yoon and Heshmati (2017), and Zhang (2005) equation (1) can be represented as follows:

\[ FDI_{it} = \delta_i Env_{it} + \beta_i X_{it} + \mu_{it} \] (2)

where \( FDI_{it} \) is the FDI inflow in Pakistan in year \( t \) in sector \( i \) and \( Env_{it} \) represents the environmental regulation, \( X_{it} \) is the vector of independent variables, while \( \delta_i \) and \( \beta_i \) are the parameters to be estimated and \( \mu_{it} \) is the random stochastic error term, and the subscript \( i \) denotes country while \( t \) is for time period. Equation (2) is further extended as follows.

\[ FDI_{it} = \beta_0 + \beta_1 CO_{2it} + \beta_2 GDPGR_{it} + \beta_3 Lab_{it} + \beta_4 SKL_{it} + \beta_5 CAP_{it} + \beta_6 ENG_{it} + \beta_7 OPEN_{it} + \mu_{it} \] (3)

The variables used in the estimation are summarized in the table 1 as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( FDI )</td>
<td>Foreign direct investment (% age of GDP)</td>
</tr>
<tr>
<td>( CO_2 )</td>
<td>Carbon dioxide emissions (metric ton per capita) used as proxy of pollution level; High levels of ( CO_2 ) represent laxity of environmental standards. According to PHH, relationship between FDI and ( CO_2 ) must be positive.</td>
</tr>
<tr>
<td>( GDPGR )</td>
<td>Gross domestic product (% age annual growth rate) measuring the wellbeing of the country and market size. Based on previous literature and theories expected relationship between FDI and GDPGR is positive.</td>
</tr>
<tr>
<td>( Lab )</td>
<td>Labor force participation (% of total population) and expected relationship between FDI and Lab is positive</td>
</tr>
<tr>
<td>( SKL )</td>
<td>Gross secondary school enrollment used as a proxy for skilled labor</td>
</tr>
<tr>
<td>( CAP )</td>
<td>Gross capital formation (% age of GDP)</td>
</tr>
</tbody>
</table>
Data on the relevant variables have been collected from the World Development Indicators (WDI) for 1980-2017 period. Covariates have been selected on the bases of Dunning ‘eclectic’ theory which states that FDI is attracted due to the reasons such as (a) location specific advantages which include availability of raw material at low cost, (b) advantages due exclusive ownership of certain assets such as technology, patents, trademarks and skills and (c) internalization advantage which protects them against the market failures. Lax environmental regulations offer location specific advantage (Ratnayake & Wydeveld, 1998).

Trade Balance Index (TBI) can be used to test the export competitiveness in polluting industries. A country specializes in export (as net-exporter) or import (as net-importer) in dirty products for group of products based on the TBI of Lafay (1992). This study used products that are classified as per the Standard International Trade Classification (SITC) specifically the 3-digit SITC Revision 2. TBI index is formulated as follows:

$$TBI_{ij} = \frac{(x_{ij} - m_{ij})}{x_{ij} + m_{ij}}$$

where $x_{ij}$ stands for exports and $m_{ij}$ imports of country $i$ for a group of goods $j$. The TBI takes value from minus one to one. A negative value indicates that the country is “net-importer” and a positive one as “net-exporter”.

### 4. Results and Discussions

Dickey & Fuller (1979, 1981) and Phillips & Perron (1988) tests are used to examine the stationarity of the time series data. Following the Engle and Granger (1987), Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests both with and without trend are provided in Table 2. The unit root test demonstrates that the labor force participation rate and gross domestic product growth rate are stationary at level while rest are stationary at first difference.

**Table 2: ADF and PP Stationarity Tests**

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF methodology</th>
<th>PP methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Trend</td>
<td>Probability</td>
</tr>
<tr>
<td>FDI (%age of GDP)</td>
<td>-2.80</td>
<td>0.06</td>
</tr>
<tr>
<td>CO₂ emission (MT/PC)</td>
<td>-1.65</td>
<td>0.44</td>
</tr>
<tr>
<td>GDP (Annual Growth rate)</td>
<td>-3.89</td>
<td>0.00</td>
</tr>
<tr>
<td>LAB (%age total population)</td>
<td>-4.78</td>
<td>0.00</td>
</tr>
<tr>
<td>SKL (Gross Percentage)</td>
<td>-0.71</td>
<td>0.83</td>
</tr>
<tr>
<td>CAP (%age of GDP)</td>
<td>-1.68</td>
<td>0.43</td>
</tr>
<tr>
<td>ENG (%age of energy used)</td>
<td>-2.01</td>
<td>0.28</td>
</tr>
<tr>
<td>Trade Openness (%age of GDP)</td>
<td>-1.71</td>
<td>0.41</td>
</tr>
<tr>
<td>ΔFDI (%age of GDP)</td>
<td>-4.03</td>
<td>0.00</td>
</tr>
<tr>
<td>ΔCO₂ emission (MT/PC)</td>
<td>-5.97</td>
<td>0.00</td>
</tr>
</tbody>
</table>
ARDL bounds test developed by Pesaran, Shin & Smith, (1996) and Pesaran et al., (2001) does not require same order of integration for all the variables. This approach is even valid for \( I(0) \) or \( I(1) \) or even if some are \( I(0) \) and some are \( I(1) \). ARDL model based on equation (3) can be specified as follows:

\[
\Delta FDI_t = \beta_0 + \sum_{i=1}^{q} \beta_1 \Delta FDI_{t-i} + \sum_{i=0}^{q} \beta_2 \Delta CO_{2t-i} + \sum_{i=0}^{q} \beta_3 \Delta GDPGR_{t-i} + \sum_{i=0}^{q} \beta_4 \Delta LAB_{t-i} + \sum_{i=0}^{q} \beta_5 \Delta SKL_{t-i} + \sum_{i=0}^{q} \beta_6 \Delta CAP_{t-i} + \sum_{i=0}^{q} \beta_7 \Delta ENG_{t-i} + \sum_{i=0}^{q} \beta_8 \Delta OPEN_{t-i} + \delta_1 FDI_{t-i} + \delta_2 CO_{2t-i} + \delta_3 GDPPC_{t-i} + \delta_4 LAB_{t-i} + \delta_5 SKL_{t-i} + \delta_6 CAP_{t-i} + \delta_7 ENG_{t-i} + \delta_8 OPEN_{t-i} + \mu_t
\]

where \( \Delta \) represents first difference operator, \( \beta_0 \) is a drift element, \( \mu_t \) is a white noise error term. The terms with summation show error correction for short-run estimates, while rest of the terms shows the long-run relationship. The first step in ARDL method requires a selection of optimal lag length. A lag length one had the lowest Schwarz information criterion (SC) value and thus selected. The second step entails the estimation of ARDL model and then computing of F-statistics using ARDL bound test methodology. Both the calculated F-statistics and its critical values are provided in Table 3. The F-statistic (4.33) is greater than the upper bound critical value (4.26), and the null hypothesis of no long-run associations is rejected.

### Table 3: Testing the Long-Run Associations

<table>
<thead>
<tr>
<th>Model</th>
<th>F-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>( FDI = f(CO_2, GDPGR, Lab, Skl, Cap, Eng, Open) )</td>
<td>4.33***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Significance</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>2.96</td>
<td>4.26</td>
</tr>
<tr>
<td>5%</td>
<td>2.32</td>
<td>3.50</td>
</tr>
<tr>
<td>10%</td>
<td>2.03</td>
<td>3.13</td>
</tr>
</tbody>
</table>

*** Indicate 1% significance level

Table 4 reveals strong positive and statistically significant long run relationship between \( CO_2 \) and \( FDI \) inflows. The effect of \( GDP \) growth on \( FDI \) inflow, as expected, is positive. Also, \( FDI \) inflow is positively affected by energy imported (\( ENG \)), gross capital formation (\( CAP \)), trade openness (\( OPEN \)) and labor force participation rate (\( LAB \)), although insignificantly. The secondary school enrollment ratio (\( SKL \)) affects \( FDI \) inflow significantly at five percent which is contrary to the general expectation.

### Table 4: ARDL Long-Run Estimation (Dependent Variable FDI)

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>( CO_2 )</td>
<td>7.6589</td>
<td>1.8163</td>
<td>4.2168</td>
<td>0.0003***</td>
</tr>
<tr>
<td>( GDPGR )</td>
<td>0.3151</td>
<td>0.1541</td>
<td>2.0447</td>
<td>0.0511*</td>
</tr>
</tbody>
</table>
Short-run error correction ARDL results are provided in Table 5. In short-run there exists a positive and significant relation between \(CO_2\) and \(FDI\) inflows as well. Similarly, \(ENG\) positively affects FDI inflow. GDP growth does not affect FDI inflow significantly. Unlike in the long run, secondary school enrollment ratio affects \(FDI\) inflow in short run. Likewise, in the long run, trade openness, labor force participation rate, gross capital formation affects \(FDI\) insignificantly with positive signs in the short run. Highly significant error correction term with negative sign indicates the presence of long-run relationship with 45 percent speed adjustment from previous year’s disequilibrium in \(FDI\) inflow to current year’s equilibrium. No evidence of serial correlation and heteroscedasticity is found.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\Delta(CO2))</td>
<td>3.4659</td>
<td>0.9652</td>
<td>3.5907</td>
<td>0.0013***</td>
</tr>
<tr>
<td>(\Delta(GDPGR))</td>
<td>0.0591</td>
<td>0.0476</td>
<td>1.2416</td>
<td>0.2255</td>
</tr>
<tr>
<td>(\Delta(LAB))</td>
<td>0.0041</td>
<td>0.0193</td>
<td>0.2113</td>
<td>0.8343</td>
</tr>
<tr>
<td>(\Delta(SKL))</td>
<td>0.0230</td>
<td>0.0283</td>
<td>0.8155</td>
<td>0.4222</td>
</tr>
<tr>
<td>(\Delta(CAP))</td>
<td>0.0583</td>
<td>0.0613</td>
<td>0.9513</td>
<td>0.3502</td>
</tr>
<tr>
<td>(\Delta(ENG))</td>
<td>0.0595</td>
<td>0.0315</td>
<td>1.8907</td>
<td>0.0699*</td>
</tr>
<tr>
<td>(\Delta(OPEN))</td>
<td>0.0412</td>
<td>0.0259</td>
<td>1.5867</td>
<td>0.1247</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-0.4525</td>
<td>0.1089</td>
<td>-4.1545</td>
<td>0.0003***</td>
</tr>
</tbody>
</table>

The ARDL model stability is tested using CUSUM and CUSUM square tests. Figure 2 and figure 3 shows plots of the CUSUM and CUSUM squares indicating that all coefficients of the model are stable.
Table 6 exhibits the outcomes of Granger pair wise causality analysis between the variables. We find that CO₂ emissions granger causes FDI inflows and similarly the FDI inflows granger cause CO₂ emissions (Bi-directional causality). The results can be interpreted that on one side lenient environmental regulations (higher levels of CO₂ emissions) attracts the FDI while on another side FDI inflows are one of the major factors responsible for increasing level of pollutions. Results validate the unidirectional causality in case of GDPGR and FDI inflows running from GDPGR to FDI inflows. No casual evidence was found in case of labor force participation rate and foreign direct investment inflows. Skill labor granger causes FDI indicating that Pakistan's skill labor affects the foreign direct investment inflows. Causality from FDI inflows to gross capital formation exhibits that level of FDI affect the gross capital formation. Similarly, unidirectional causality was observed from energy imported to foreign direct investment inflows. Lastly, in case of openness and foreign direct investment no causality was found from either side.
Table 6: Pair wise Granger Causality Tests

<table>
<thead>
<tr>
<th>Granger Causality Results</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F-value</td>
<td>Prob.</td>
</tr>
<tr>
<td>CO₂ → FDI</td>
<td>5.84697</td>
<td>0.0020***</td>
</tr>
<tr>
<td>FDI → CO₂</td>
<td>3.23312</td>
<td>0.0280**</td>
</tr>
<tr>
<td>GDPGR → FDI</td>
<td>2.30987</td>
<td>0.0788*</td>
</tr>
<tr>
<td>FDI → GDPGR</td>
<td>1.53678</td>
<td>0.2194</td>
</tr>
<tr>
<td>Lab → FDI</td>
<td>0.13613</td>
<td>0.9821</td>
</tr>
<tr>
<td>FDI → Lab</td>
<td>0.32434</td>
<td>0.8929</td>
</tr>
<tr>
<td>SKL → FDI</td>
<td>3.32343</td>
<td>0.0219**</td>
</tr>
<tr>
<td>FDI → SKL</td>
<td>0.61702</td>
<td>0.6881</td>
</tr>
<tr>
<td>CAP → FDI</td>
<td>0.83776</td>
<td>0.5372</td>
</tr>
<tr>
<td>FDI → CAP</td>
<td>2.69508</td>
<td>0.0479**</td>
</tr>
<tr>
<td>ENG → FDI</td>
<td>2.14192</td>
<td>0.0982*</td>
</tr>
<tr>
<td>FDI → ENG</td>
<td>0.11800</td>
<td>0.9870</td>
</tr>
<tr>
<td>OPEN → FDI</td>
<td>0.55852</td>
<td>0.7305</td>
</tr>
<tr>
<td>FDI → OPEN</td>
<td>0.54038</td>
<td>0.7436</td>
</tr>
</tbody>
</table>

***, **, * Indicate 1%, 5% and 10% significance levels

Sector wise per capita emission data is not available for Pakistan and therefore aggregate level data were used. To study the prediction of pollution haven hypothesis that FDI contributes to developing countries exports due comparative advantage in polluting products. This study uses Pakistan trade statistics for most polluting industries to find if Pakistan exports increase due to its lax environmental regulations. Table 7 shows the seven most polluting sectors of Pakistan along with the product codes. Furthermore, figure 4 shows calculated TBI values for the said products. Table 8 reports the unit root results of TBI. The TBI index of metal and mining, primary iron and steel, chemicals and rubber products does not support the pollution haven hypothesis because the value of TBI is between 0 and -1 which shows that Pakistan imports more as compare exports. While the pulp and paper industry provide evidence for the pollution haven effect as the TBI value reached to 1 in 1994 showing the country became net exporter and thereafter TBI value have been continuously increasing showing an increase in exports. Pulp & paper industry TBI has unit root so pollution haven does exist. The TBI values of textile industry from 1982 till 1996 shows Pakistan as net exporter of textile products with varying from 1997 to 2017. TBI values for textile industry has unit root which also validate the existence of pollution haven effect.

Table 7: Selected Pollution intensive industries of Pakistan

<table>
<thead>
<tr>
<th>Industry</th>
<th>Product Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal &amp; Mining</td>
<td>281, 282, 287, 288, 289</td>
</tr>
<tr>
<td>Primary Nonferrous Metals</td>
<td>681, 682, 683, 684, 685, 686, 687, 689</td>
</tr>
<tr>
<td>Pulp &amp; Paper</td>
<td>251, 641, 642</td>
</tr>
<tr>
<td>Primary Iron &amp; Steel</td>
<td>671, 672, 673, 674, 675, 676, 677, 678, 679</td>
</tr>
<tr>
<td>Chemicals</td>
<td>512, 513, 514, 582, 583, 584, 585</td>
</tr>
<tr>
<td>Textile</td>
<td>261, 262, 263, 264, 265, 266, 267, 268, 269</td>
</tr>
<tr>
<td>Rubber Products</td>
<td>621, 625, 628</td>
</tr>
</tbody>
</table>

Source: (Qureshi, 2006; Indriya & Widodo, 2011)
5. Discussions and Conclusions

This study investigated the pollution haven hypothesis which predicts that environmental regulations variability among countries or regions affect polluting industries location and trade flows. A positive and statistically significant relationship between $CO_2$ emissions and FDI inflows both in short-run, and long-run was found. Therefore, we can conclude that lenient environmental policy of Pakistan may attract polluting industries from other countries. Similar conclusions are drawn by Aliyu (2005), Acharyya (2009), Baghebo & Apere (2014), Hoffmann, et al. (2005), Hassaballa, (2014), Leslie (2016) and Ridzune, Noor & Ahmad (2014). We found weak evidence of pollution havens from exports side except for the textile, paper and pulp industries of Pakistan similar to the results of Akbostanci, Tunc, & Turut-Asik (2007), Indriya & Widodo (2011), and Qureshi, (2006). Pakistani government needs to invest in human capital and make their labour force more competitive and efficient to attract the foreign investment.
References


Relating Learner Empowerment with Learner Self-Regulation Learning in Higher Education

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ARTICLE DETAILS

ABSTRACT

The aim of the study was to analyze the relationship of Learner empowerment and Self-regulation at university level. The researcher conducted a survey by administering the questionnaire to collect a data on a sample of 300 students in which 150 male students and 150 female students in District Lahore were included. Data were analyzed by using inferential and descriptive statistics. Researcher has used two instruments first one learner empowerment and second students’ self-regulation. Learner empowerment composed of three factors and students’ self-regulation also has three factors. Sample was selected by random sampling technique. There were 22 statements of Learner empowerment questionnaire and 23 statements of Self-regulation questionnaire. The Study revealed that students’ level of Self-regulation was high. The study also revealed that most of students were much empowered on overall learner empowerment scale and its three components. The study was also found positive and strong relationship between Learner empowerment and students’ Self-regulation at university level. It can be concluded from the findings of the study that Self-regulation and Learner empowerment are correlated and strengthen to each other.

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1. Introduction

Empowered learners are those who own their own learning and feel that learning happens anytime and anywhere. They take possession and responsibility for their learning. They can transfer thought and knowledge into focused action. Student empowerment means giving young pupils the chance of energetic participation in school activities and decisions that can shape their lives (Ashcroft, 1987). Hattie told the significance of making students’ thinking observable, both to the teacher and the student, as a critical process in developing students’ knowledge of the material being learned. Increasing metacognitive awareness and control is acknowledged as having a powerful influence on students’ learning and their capability to become independent learners. Skilled reflection develops understanding and allows students to apply their knowledge in new settings. It is also at the heart of being a self-regulated, life-long learner.
Whitebread (2017) has explained that children’s’ self-regulatory skills are predictor of academic outcomes and emotional welfare more powerfully than any other facet of children’s development. Watkins (2010) has argued that schools need to have learning somewhat than a performance orientation to improve students’ self-regulatory skills, to learn by what means to learn. This includes making learning a thing of attention and reflection or to make learning an entity of learning. When this is adjusted fully, students also do well in assessments.

Hill (2007) has suggested that all learning is basically social in nature. In the meantime, individuals are social creatures, which mean learning happens through social procedure of language use. The purpose of present research work is to explore how instructors can empower learners by developing self-directed learning. By giving learners more ownership in their learning might be resulted in a profounder and more meaningful experience. There are a number of views on how to choose what to include in the curriculum and what weighting to attach to each. Traditionally, these have highlighted cultural communication (Lawton, 1989), wherever, on the part of the school, students would be empowered with the knowledge and competencies appreciated in their culture.

Watkins (2010) reports a learning orientation, not only supports students to develop the learning abilities that they will be needed for further education, life and the world of work but it also supports them to do better in other examinations. This can be an authoritative fact in influence results-orientated parents and learners about why reflective learning matters. According to Zimmerman (2002), self-regulated learning (SRL) is a self-directive method that allows students to change their mental abilities into academic skills, and it is a regular and mental knowledge procedure in which learners involve very energetically until their learning goals are grasped. The world is moving towards knowledge-based economies, and this carry out new requirements and difficulties upon the education systems to grow and enrich learners’ knowledge, skills, and attitudes (Organization for Economic Cooperation and Development OECD, 2003). Therefore, it is needed to reason deeply about education systems; numerous learning theories provide clarifications, uses, and models to make students who are able to see the challenges of this era. SRL depends seriously on students’ practical involvement in their learning outcomes; it has been one of the most commonly discussed topics in the field of academic learning (Dent & Koenka, 2015).

So, students who claim concern for their learning and results have a high likelihood of increasing their capacity to suggest learning experiences stored in their memory, develop their sense of responsibility, and gain self-governing learning skills. In this case, academic achievements and self-confidence will be higher, and learning goals will be met. In recent years, the concept of SRL has become the source of attention of applied educational studies as a significant variable in enhancing academic achievement and bringing about success (Tanriseven & Dilmac, 2013). Learning requires to be made an entity of attention, conversation, reflection and evaluation in everything the school does.

Behavioral theories in self-regulated learning (SRL) in teaching have a framework of not considering the students’ internal states (e.g. thoughts, emotions, motivations, and views), instead determining heavily on learners’ self-control styles (e.g. self-mentoring, self-evaluation, self- support, self-correction, and self-instruction) In the same way, cognitive theories concentrated on students’ cognitive abilities and aptitudes that fully description for their learning, also offer an incomplete explanation of students’ learning processes. But, cognitive SRL theories have developed to focus on learners’ active roles in developing their own abilities and strategies (Zimmerman, 2008). According to Vygotsky’s theory of social learning (1978), social context (e.g. contact with others, linguistic, and ethos) plays a central role in expressing students’ cognitive functions, and must be clarified as the product of social connections. Vygotsky (1978) debated that every cognitive function looks steadily in the learning process at two levels: inter psychological level (controlled by others-social contact) and intra psychological level (controlled by the learner him or herself). Interaction between these two levels and the surroundings was suggested in Bandura’s (1986) social cognitive theory. Behaviors, personal procedures and surroundings interact in
return to effect students’ functioning and regulate any changes needed to revise their cognition, strategies and perceptions.

The term “empowerment” was defined by Fymeir, Shulman & Houser (1996) as “the process of creating intrinsic task motivation by providing an environment and tasks which increase one’s sense of self efficacy and energy.” Hill (2007) proposed that all learning is social in nature. Since humans are social creatures, which means making creates through social procedure of language use after some time. Pack (1976) concurred with social precepts of learning when he presented conversation theory. This theory recommends that discussion principal procedure of learning. As students’ associate with each other and teacher in important ways, change starts for occur as far as student development and advancement. Adapting on that point turns into procedure of coming for now through shared change and transaction.

Self-regulation certifiably is not a psychological capacity or scholarly execution aptitude; rather it is a self-order process by which students change their psychological capacities into scholastic abilities (Zeidner, Boekarts, & Pintrich, 2000). When all said in done, self-control includes students who proactively guide their conduct or procedures for accomplish self-set objectives. They additionally depend on full of feeling, intellectual, motivational, and conduct criticism for change or modify their systems and practices when unfit for on first achieve their objectives (Zimmerman, 1989). Self-regulation includes processes that have evolved for extend range and flexibility of hum behavior, making it possible for hum beings for override counterproductive responses. For self-regulation for occur, one needs sense of self-awareness and, if other people are involved, ability for infer mental state of others (Baumeister, DeWall, Ciarocco, & Twenge, 2005). Self-regulation processes are supposed for bring about positive outcomes. When self-regulation fails, however, control over one’s behavior breaks down, which likely leads for negative outcomes (Baumeister, 1997). Proposed that there are two forms of self-regulation failure: under regulation and miss regulation. First refers for self-failing for try for change its response and produce best outcome, whereas second refers for self-making effort for change its response, but change does not lead for best outcome. Latter indicates that there may be downside for use of self-regulation processes.

Self-control with regards for learning has been proposed for self-guided procedures that empower students for change their psychological capacities into execution abilities (Zimmerman, 2008). Self-regulated students are people who proactively as opposed for responsively approach their learning errands. These indicate individual activity, persistence, or versatile abilities, starting from ideal met psychological procedures and motivational convictions (e.g., Zimmerman, 2006, 2008). Met perception for contemplating one's own reasoning and incorporates procedures, for example, arranging or self-observing (e.g., Hong & O'Neil, 2001). Self-control forms proposed for not promptly deliver elevated amounts of aptitude. These procedures are thought enable individuals for get information and aptitudes successfully. One powerful instrument that students’ use for enhancing their adapting, paying little mind for capacity, self-direction. A meta-analysis conducted by Dent and Koenka (2016) have explored relationship of components of self-regulated learning for secondary and elementary school students. They have shown that average relationship differ based on the type of achievement measure. The purpose of this study was to explore relationship of learning empowerment and student self-regulation at university level.

2. Research Questions
The following were research questions of the study:

1. To what extent students are empowered at university level?
2. To explore the level of self-regulation of students at university level?
3. Is there any relationship between learning empowerment and students’ self-regulation?

3. Methodology
This study was conducted by using quantitative research method. This descriptive study was conducted through survey of concerned Universities. Survey method was adopted to collect the data through a questionnaire to find out the opinion of the concerned participant about study variables. Population of the
study has included all the 33 Higher Education Commission (HEC) recognized universities of Lahore including 14 Public and 19 Private universities. By random sampling technique three hundred (300) students were selected as the sample of the study. After selection of four public and four private universities in Lahore District at random, one hundred fifty (150) females and one hundred fifty (150) male students were sample of the study.

4. Instruments of the Study
Researchers have used two instruments first learner empowerment and second students’ self-regulation questionnaire. Self-regulation questionnaire was a part of motivational strategies for learning questionnaire that was developed by Pintrich and De Groot (1990). It was composed of three factors. Similarly, learner empowerment questionnaire that was previously developed by Fymeir, Shulman & Houser (1996). Questionnaire for learner empowerment composed of three factors. Both instruments were Likert scales (questionnaires) with 5-point on it, to collect data from the participants. There were 22 statements of learner empowerment questionnaire and 23 statements of self-regulation questionnaire. The questionnaires were pilot tested on fifty students from two private and two public sector universities of Lahore. The reliability of self-regulation questionnaire was found .78 and the reliability of learner empowerment questionnaire was found .81, which were encouraging. Both instruments were validated before use.

5. Data Collection
The data was collected through questionnaires adapted by the researchers. Researcher personally visited sample universities to collect data.

6. Data Analysis
The collected data was analyzed by using IBM SPSS ver.22 (Statistical package for social science) to investigate the relationship of learner empowerment and student self-regulation at university level. The data collected through questionnaire was tabulated and analyzed by applying inferential and descriptive statistics.

7. Results
Results were calculated for frequencies and percentages of demographic variables shown in following tables:

<table>
<thead>
<tr>
<th>Table 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic information of the Participation</td>
<td></td>
</tr>
<tr>
<td><strong>Variables</strong></td>
<td><strong>Levels</strong></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
<td>20-25</td>
</tr>
<tr>
<td></td>
<td>25-30</td>
</tr>
<tr>
<td></td>
<td>30-35</td>
</tr>
<tr>
<td>Qualification</td>
<td>BS/BSc</td>
</tr>
<tr>
<td></td>
<td>MA/MSc</td>
</tr>
<tr>
<td></td>
<td>PhD</td>
</tr>
<tr>
<td>Type of University</td>
<td>Public</td>
</tr>
<tr>
<td></td>
<td>Private</td>
</tr>
</tbody>
</table>

Demographic information from table 1 shows that two hundred and fifty male and same number of female
students participated in this research. Forty nine percent participants were 20-25 years old and forty percent participants were 25-30 years old, in the same way, eleven percent participant were 30-35 years old. Qualification of forty two percent students was MA/MSc and almost same percentage was of BS/BSc participants, and seventeen percent were PhD degree holders. There was same percentage of public and private university participants.

**Table 2**  
*Students’ level of learner empowerment*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (2.85 to 3.50)</td>
<td>115</td>
</tr>
<tr>
<td>Medium (3.50 to 4.25)</td>
<td>116</td>
</tr>
<tr>
<td>High (4.25 to 5.00)</td>
<td>269</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
</tr>
</tbody>
</table>

Results revealed that learner empowerment level of 16% students was low. There were 16.7% students whose level of learner empowerment was medium. There were 67.3% students whose level of learner empowerment was high. It was concluded from the results that learner empowerment level of majority of students was high.

**Table 3**  
*Students’ levels of self-regulation*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (2.90 to 3.50)</td>
<td>104</td>
</tr>
<tr>
<td>Medium (3.50 to 4.75)</td>
<td>134</td>
</tr>
<tr>
<td>High (4.75 to 5.00)</td>
<td>262</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
</tr>
</tbody>
</table>

Results shown from table 3 that self-regulation level of 12.3% students was low. There were 22.3% students whose level of self-regulation was medium. There were 65.3% students whose level of self-regulation was high. It was concluded from the results that self-regulation level of majority of students was high.

**Table 4**  
*Responses of students about competence*

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I feel self-assured that I can effectively do my duties.</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>275</td>
</tr>
<tr>
<td></td>
<td>(3.3%)</td>
<td>(0%)</td>
<td>(0%)</td>
<td>(5%)</td>
<td>(91.7%)</td>
</tr>
<tr>
<td>2 I feel scared by what is required from me in my class.</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td>24</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>(3.7%)</td>
<td>(0.3%)</td>
<td>(0%)</td>
<td>(8%)</td>
<td>(88%)</td>
</tr>
<tr>
<td>3 I am able to perform the necessary activities to succeed in my class.</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>23</td>
<td>266</td>
</tr>
<tr>
<td></td>
<td>(3.3%)</td>
<td>(0.3%)</td>
<td>(0%)</td>
<td>(7.7%)</td>
<td>(88.7%)</td>
</tr>
<tr>
<td>4 My teacher makes me feel scarce.</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>22</td>
<td>266</td>
</tr>
<tr>
<td></td>
<td>(3.3%)</td>
<td>(7.3%)</td>
<td>(0%)</td>
<td>(7.3%)</td>
<td>(88.7%)</td>
</tr>
<tr>
<td>5 I find my class to be exciting and energizing.</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>22</td>
<td>268</td>
</tr>
<tr>
<td></td>
<td>(3.0%)</td>
<td>(0.3%)</td>
<td>(0%)</td>
<td>(7.3%)</td>
<td>(89.3%)</td>
</tr>
</tbody>
</table>

Table 4 shows responses of students about statements related to competence. Two hundred ninety (96.7%) respondents agreed or strongly agreed to perform their duties adequately. Overall ninety six percent (96%) participants were agreed statements related to competence.
Table 5
Responses of students about Meaningfulness

<table>
<thead>
<tr>
<th>Sr</th>
<th>Statement</th>
<th>SDA</th>
<th>DA</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The material I read in this class is useful for me.</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>19</td>
<td>268</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4%)</td>
<td>(.3%)</td>
<td>(0%)</td>
<td>(6.3%)</td>
<td>(89.3%)</td>
</tr>
<tr>
<td>2</td>
<td>Class is consistent with my values.</td>
<td>10</td>
<td>4</td>
<td>0</td>
<td>20</td>
<td>266</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.3%)</td>
<td>(1.3%)</td>
<td>(0%)</td>
<td>(6.7%)</td>
<td>(88.7%)</td>
</tr>
<tr>
<td>3</td>
<td>I find my class to be motivating.</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>28</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.3%)</td>
<td>(1.7%)</td>
<td>(0%)</td>
<td>(9.3%)</td>
<td>(87.7%)</td>
</tr>
<tr>
<td>4</td>
<td>I have the ability to make a supportive learning environment in this class.</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>24</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4%)</td>
<td>(.3%)</td>
<td>(0%)</td>
<td>(8%)</td>
<td>(87.7%)</td>
</tr>
<tr>
<td>5</td>
<td>I can decide how assignment can be performed.</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.3%)</td>
<td>(0%)</td>
<td>(0%)</td>
<td>(8.3%)</td>
<td>(88.3%)</td>
</tr>
</tbody>
</table>

Results in table 5 are showing the responses of students about statements related to meaningfulness. Two hundred eighty seven (95.6%) respondents agreed or strongly agreed that information got in this class is useful. Two hundred eighty six (95.4%) respondents were agreed that students’ class is consistent with their values. Similarly, with other statements more than ninety six percent (96%) respondents were agreed with statements related to meaningfulness.

Table 6
Responses of students about Choice

<table>
<thead>
<tr>
<th>Sr</th>
<th>Statement</th>
<th>SDA</th>
<th>DA</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The assignment required in my class is meaningful in my view.</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>24</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.3%)</td>
<td>(2%)</td>
<td>(0%)</td>
<td>(8%)</td>
<td>(86.7%)</td>
</tr>
<tr>
<td>2</td>
<td>I approve the standards I must meet in my class.</td>
<td>9</td>
<td>5</td>
<td>0</td>
<td>33</td>
<td>253</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3%)</td>
<td>(1.7%)</td>
<td>(0%)</td>
<td>(11%)</td>
<td>(84.3%)</td>
</tr>
<tr>
<td>3</td>
<td>The assignment required by my class is valued to me.</td>
<td>9</td>
<td>7</td>
<td>0</td>
<td>29</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3%)</td>
<td>(2.3%)</td>
<td>(0%)</td>
<td>(9.7%)</td>
<td>(85%)</td>
</tr>
<tr>
<td>4</td>
<td>I usually do more work than is mandatory by the syllabus.</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>23</td>
<td>267</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.3%)</td>
<td>(1%)</td>
<td>(0%)</td>
<td>(7.7%)</td>
<td>(89%)</td>
</tr>
<tr>
<td>5</td>
<td>I have a choice of performing my work in my own way.</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>49</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4%)</td>
<td>(1%)</td>
<td>(0%)</td>
<td>(16.3%)</td>
<td>(78.7%)</td>
</tr>
<tr>
<td>6</td>
<td>Stating my own attitudes and ideas is appreciated in my class.</td>
<td>9</td>
<td>5</td>
<td>0</td>
<td>27</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3%)</td>
<td>(1.7%)</td>
<td>(0%)</td>
<td>(9%)</td>
<td>(86.3%)</td>
</tr>
<tr>
<td>7</td>
<td>I have a high level of autonomy in completing my work.</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>30</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.7%)</td>
<td>(1%)</td>
<td>(0%)</td>
<td>(10%)</td>
<td>(86.3%)</td>
</tr>
<tr>
<td>8</td>
<td>My teacher allows flexibility in the way I perform my responsibilities.</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>37</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.7%)</td>
<td>(1%)</td>
<td>(0%)</td>
<td>(12.3%)</td>
<td>(84%)</td>
</tr>
</tbody>
</table>

Table 6 shows responses of students about statements related to choice. Two hundred eighty four (94.7%) respondents were agreed that students task required in their class are personally meaningful. Similarly ratio of participants agreed with statements related to the choice was high (96%).

Table 7
Responses of students about self-efficacy

<table>
<thead>
<tr>
<th>Sr</th>
<th>Statements</th>
<th>SDA</th>
<th>DA</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I believe to do well than the other students in my class.</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>54</td>
<td>234</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3%)</td>
<td>(1%)</td>
<td>(0%)</td>
<td>(18%)</td>
<td>(78%)</td>
</tr>
<tr>
<td>2</td>
<td>I feel that I do very well in this class.</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>45</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.3%)</td>
<td>(.3%)</td>
<td>(0%)</td>
<td>(15%)</td>
<td>(83.3%)</td>
</tr>
</tbody>
</table>

760
I believe I am a best student than to other class fellows.

I believe that I will get good grades in this class.

I am sure I can do an excellent job on the problems.

My study skills are excellent than others in this class.

I believe I know more about the subject as compare to other class fellows.

I feel that I will be able to learn the material for this class.

Table 7 shows the responses of students about statements related to self-efficacy. Two hundred eighty eight (96%) respondents agreed that students expect to do well as compared with other students in this class. Similarly, ratio of students agree with statements related to self-efficacy was high (96%).

<table>
<thead>
<tr>
<th>Sr</th>
<th>Statement</th>
<th>SDA</th>
<th>DA</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I like challenging class work that is helpful to learn new things.</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>47</td>
<td>248</td>
</tr>
<tr>
<td>2</td>
<td>Understanding of this subject is useful for me.</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>39</td>
<td>253</td>
</tr>
<tr>
<td>3</td>
<td>I take interest what I am learning in this class.</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>43</td>
<td>250</td>
</tr>
<tr>
<td>4</td>
<td>I think I will be able to use what I learn in this class in other classes.</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>39</td>
<td>257</td>
</tr>
<tr>
<td>5</td>
<td>I think that what I am learning in this class is interesting for me.</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>46</td>
<td>247</td>
</tr>
<tr>
<td>6</td>
<td>I always learn from my mistakes, even if I do poorly on a test.</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>241</td>
</tr>
<tr>
<td>7</td>
<td>It is important for me to learn what is being taught in this class.</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>38</td>
<td>254</td>
</tr>
<tr>
<td>8</td>
<td>I think it is useful knowledge that we are learning in this class.</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>39</td>
<td>248</td>
</tr>
</tbody>
</table>

Table 8 shows the responses of students about intrinsic value. Two hundred ninety five (98.3%) respondents agreed that students prefer class work is challenging so that they can learn new things. Two hundred ninety two (97.3%) respondents agreed that important for students to learn what is being taught in this class. Similarly ratio of participants agreed with statements related to the intrinsic value was high (95%).

<table>
<thead>
<tr>
<th>Sr</th>
<th>Statement</th>
<th>SDA</th>
<th>DA</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>For difficult lessons I leave studies otherwise I study only the easy parts.</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>39</td>
<td>256</td>
</tr>
<tr>
<td>2</td>
<td>I use self-questioning technique to make sure that I know what I have studied.</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>49</td>
<td>248</td>
</tr>
<tr>
<td>3</td>
<td>I work hard to get a good grade even when I do not have hold.</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>36</td>
<td>251</td>
</tr>
</tbody>
</table>
Table 9 shows responses of students about statements related to students’ self-regulation. Two hundred ninety five (98.3%) respondents agreed or strongly agreed that students ask their self-questions to make sure they know the material they have been studying. Similarly, ratio of participants agreed with statements related to the self-regulation was high (95%).

Table 10
Relationship between learner empowerment and student self-regulation

<table>
<thead>
<tr>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-efficacy</td>
<td>4.77</td>
<td>0.27</td>
<td>-.301*</td>
<td>.186**</td>
<td>.756***</td>
<td>.329***</td>
<td>.243***</td>
<td>.215***</td>
<td>.371***</td>
</tr>
<tr>
<td>2. Intrinsic value</td>
<td>4.76</td>
<td>0.28</td>
<td>-.</td>
<td>.243**</td>
<td>.784***</td>
<td>.179***</td>
<td>.138*</td>
<td>.137*</td>
<td>.214***</td>
</tr>
<tr>
<td>3. Self-regulation</td>
<td>4.78</td>
<td>0.35</td>
<td>-.</td>
<td>-.541**</td>
<td>.044**</td>
<td>.155**</td>
<td>.051</td>
<td>.104</td>
<td></td>
</tr>
<tr>
<td>4. Overall self-regulation</td>
<td>4.77</td>
<td>0.21</td>
<td>-.</td>
<td>-.288**</td>
<td>.253***</td>
<td>.205**</td>
<td>.348**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Competence</td>
<td>4.80</td>
<td>0.55</td>
<td>-.</td>
<td>-1</td>
<td>.221**</td>
<td>.254**</td>
<td>.746**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Meaningfulness</td>
<td>4.78</td>
<td>0.42</td>
<td>-.</td>
<td>-.310**</td>
<td>.627**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Choice</td>
<td>4.73</td>
<td>0.36</td>
<td>-.</td>
<td>-.</td>
<td>.749**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Learner empowerment</td>
<td>4.77</td>
<td>0.31</td>
<td>-.</td>
<td>-.</td>
<td>-.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10 shows about Pearson coefficient of correlation that was used to find the relationship between learner empowerment and students self-regulation. Learner empowerment composed of three factors and students’ self-regulation also has three factors. The correlation was calculated within and between factors of learner empowerment and students self-regulation. There was a noteworthy relationship of Self efficacy with Intrinsic value, Self- regulation, Competence respectively (r=.301, r=.186, r=.756, r=.329, p<.01). There was a noteworthy positive and small relationship of Meaningfulness, Choice, Learner empowerment with Self efficacy (r=.243, r=.215, r=.371, p<.01). There was a noteworthy relationship of Self- regulation, overall Self-regulation and Competence with Intrinsic value (r=.243, r=.784, r=.179, p<.01) respectively. There was a significant relationship of Meaningfulness, Choice and learner empowerment with Intrinsic value (r=.138, r=.137 p<.05, r=.214, p<.01). There was no significant relationship of Competence, Choice and Learner empowerment with self-regulation (r=.044, r=.051, r=.104, p>.05). There was a noteworthy relationship of Overall Self-regulation Meaningfulness with Self-regulation(r=.541, r=.155, p<.01). Overall relationship between all factors was positive and significant.

8. Discussion
The findings of this research have shown that there were majority of students whose level of learner empowerment was high. On the other hand, there were some students whose level of learner empowerment was medium and in the same line learner empowerment level of a small number of students was low. It was concluded from the results that learner empowerment level of majority of students was high. The results of this study have shown that the percentage of students’ response on learner empowerment (and its components) questionnaire was highly positive. Majority of the students marked on strongly agree on overall statements of learner empowerment, competence, meaningfulness and choice. Students were confident, exciting and energizing. They feel that information given in their class is consistent with their values interesting and useful, therefore they work hard and can perform well. They were agreed that they do more effort to fulfil the requirement of the class and enjoyed higher level of autonomy in the class therefore we can be more creative in the class. Hence, empowered learner have positive attitude towards learning and have positive impact on students’ achievement (Frymier, Shulman & Houser, 1996).

The findings of this research have also shown that there were majority of students whose level of self-
regulation was high. On the other hand, there were some students whose level of self-regulation was medium and in the same line self-regulation level of a small number of students was low. It was concluded from the results self-regulation level of majority of students was high. Most teachers are agreed to implement self-regulation in classroom is ideal. Planning such lesson for implementation of self-regulation is not a small achievement (Paris & Winograd, 1990). Since, components of self-regulation learning has positive relationship with each other (Dent & Koenka, 2016).

Generally, students were strongly agreed with the statements related to self-efficacy, intrinsic value and self-regulation. Students were agreed that they can perform very well in class and they were aware that they can learn given material for the class. Their overall self-efficacy level was very high. They were confident that they can learn new things and know the importance and usefulness of lessons taught in the class. They believe that they learn from their mistakes. They think that they need to question their-self they work hard even if the class is not interesting to get good grades. A variety of research literature has encouraged self-regulation in classroom for effective instructions (e.g. Andreassen & Braten, 2011; Cleary & Zimmerman, 2004; Dignath & Buettner, 2008; Tonks & Taboada, 2011; Hong, & O'Neil, 2001) and promote collective discussion (Han, & Hill, 2007)

The relationship between learner empowerment and students self-regulation was found positive. Three factors of learner empowerment were highly correlated with three factors of students’ self-regulation. Self-efficacy was correlated with intrinsic value, self- regulation and competence respectively. Similarly, meaningfulness, choice and learner empowerment have positive relationship with self-efficacy. Self-regulation, overall self-regulation and competence were found to be correlated with intrinsic value. A notable relationship of meaningfulness, choice and learner empowerment with intrinsic value was also found. Competence, choice and learner empowerments were not correlated with self-regulation considerably.

9. Conclusion and Recommendations
The purpose of the study was to investigate the relationship of learner empowerment and student self-regulation at university level. Study reveals that Self-regulation of students was very high. Those students who are very high in self-regulation they may be very good in planning and executing their academic activities themselves. They may be good in preparation in class tests and assignment but it is needed to do further research on this issue. The study also reveals that most of students were much empowered on overall scale and its three components. Empowerment will support to take risk of new and challenging academic task and will help to achieve their goals. Self-regulation and learner empowerment both construct push to students toward successful academic life. The study also reflects strong relationship between learner empowerment and student self-regulation at university level. It can be concluded from the findings of the study that Self-regulation and learner empowerment are inter related and strengthen to each other.

The students should get awareness about to current affairs and situations. The students should communicate with other students, scholars, counselors to solve the different kinds of problems of relevance to the education and students. The self-regulated learning skills should attend the group discussion meetings, symposium, workshop and seminars etc. to develop their knowledge and understanding of self-regulated learning skills.

References


Processes and Beliefs
Determinants of Competitiveness of Business Schools in Khyber Pakhtunkhwa: Faculty’s Perspective

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ABSTRACT

Purpose- The present study was an attempt to enhance the understanding on the competitiveness of business schools (Bschools) and identify the most influential determinants that affect competitiveness of Bschools in Khyber Pakhtunkhwa from faculty’s perspective.

Methodology- The current study followed the quantitative approach. The sample size was 261 determined by formula of Yamane (1967) and respondents were selected using stratified probability sampling technique. Data was collected through questionnaire using 5-point Likert scale. Principal Component Analysis was applied to assess unifactoriality of the constructs. Hypothesis of study assuming relationship between independent and dependent variables were tested using SEM.

Findings- Findings of the study suggests that Teaching staff, Employment prospects, Gender diversity, Leadership and management significantly and positively affect the Competitiveness of Bschools (P< 0.05). On other hand, Industry and Internationalization aspects were found to have significant negative effect on competitiveness of Bschools (P<0.05).

Originality/Value- The present study can help the management of business schools to focus on the areas that can increase the competitiveness of business school to meet the challenges of globalization. Moreover, competitiveness was measured using satisfaction and reputation and the empirical testing of effect of determinants on competitiveness of business schools are the theoretical contributions of the study.

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1. Introduction
The quality of human force in every country is dependent on its education (Sembiring, 2018). It is due to fact that the most vital factor of globalization is knowledge. Knowledge is affecting every sphere of
modern times such as technology and sustainable development that is linked directly to the competitiveness of nations (Keser, 2015). The knowledge is the factor that transforms companies into a competitive one and in turn contributes to the competitiveness of a nation. This transformation is taken place through competitive labour force. Due to this reason, it is the requirement of a country to nurture a workforce that is globally competitive (Keser, 2015). The aim of creating competitive national workforce can be achieved only through good quality of higher education. Therefore, most developed countries have more emphasis on competitive education quality for economic and social uplift (Stimac & Simic, 2012).

The globalization has intense pressure over the countries for producing competitive human resource and new challenges are being encountered by educational institutes (Tan, Goh & Chan, 2015). The changes in education industry such as creation of research universities and universities of applied sciences, pressure from stakeholders and world-class universities etc has given a central role to achieve competitiveness of higher education institutes in present times (Supe, Zeps, Jurgelâne, & Ribickis, 2018). Education providing institutes are now struggling hard to improve their quality to achieve competitive advantage (Tan, Goh & Chan, 2015). Moreover, the change in education sector is compelling institutes towards identifying ways for competitiveness (Supe, Zeps, Jurgelâne, & Ribickis, 2018). Competitiveness can be broadly referred to the ability of a firm to build and sustain competitive advantages (Dimitrova & Dimitrova, 2017). In order to build and identify competitive advantage, it is required to unveil the determinants that can play crucial role in attaining the competitiveness for higher education (Supe, Zeps, Jurgelâne, & Ribickis, 2018). The institutions can gain competitiveness if it fulfills the needs of internal and external stakeholders (Ashmarina, Khasaev, & Plaksina, 2015).

Despite the fact that competitiveness in higher education is highly desirable, fewer efforts are seen in the subject area. Various gaps are identified in literature. First, determinants of competitiveness of higher education institutes are explored in one study of Supe et al. (2018) but methodology of study was a systematic review and it was not tested empirically. They insisted on identification of internal and external factors for competitiveness of higher education institutes. Tan, Gou & Chan (2015) also emphasized that determinants that attract and retain students to gain competitive advantage should be explored in higher education. Secondly, the concept of competitiveness is not measured through the lens of satisfaction and reputation together (non-financial measures) from perspective of stakeholders in previous studies. Sembiring (2018) establish a link between competitive advantage and image (reputation) of higher education institute but the study lacks the empirical testing of relationship. The effect of determinants of competitiveness using satisfaction and reputation is not seen empirically till date. Third, there is contextual gap in literature that the concept of competitiveness and the determinants of competitiveness is not studied adequately in context of business schools (Bschools) and none of the study is found in the context of Khyber Pakhtunkhwa to the best of author knowledge.

The study will contribute to the body of knowledge by empirically testing the relationship of determinants of competitiveness with competitiveness of business schools. The competitiveness of business schools will be gauge through the internal stakeholder (faculty) perspective that will help the management and policy makers of business schools to understand the requirements of internal stakeholders. The study will identify most influential determinants that can be useful in designing strategies of business schools and to build competitive advantages of business schools in Khyber Pakhtunkhwa.

2. Review of Literature
2.1. Competitiveness
Competitiveness can be defined as how well the ability of a firm is to meet its customer needs in comparison to other firms that offer a similar product or service (Melnyk & Yaskal, 2013). The competitiveness of firms is linked to the concept of competitive advantage (Porter, 1985). A competitive advantage can be described as an attainment of superior position of a firm in an industry as compared to its rivals (Depperu and Cerrato, 2005). Competitive advantage is the result of a strategy helping a firm to maintain and sustain a favorable market position (Yasar, 2010). To this struggle of achieving competitive
advantage, Porter’s suggested generic strategy framework. According to the Porter (1985), there are two type of competitive advantage a firm can build: Cost leadership and differentiation. A firm can gain competitive advantage either by keeping a lower cost than its competitors or commanding a higher price through product and service differentiation (Porter, 1980 & 1985). Cost leadership is a position of a firm in which they sell their goods or service to customers with a price either equal or lower than average industry price that provide them with a profit margin to gain maximum market share as compared to their rivals (Kamau, 2013; Porter, 1985). Approaches or the competitive factors adopted for differentiation are various. For instance, design or brand image, technology, features, customer service dealer network, high quality product or other dimensions (Porter, 1985). Both type of competitive advantage is the outcome of actual value created by the firm for its customers (Porter, 1985). Further, Porter has also clarified that this competitive advantage can be achieved only by trade-off i.e. choosing single strategy (cost leadership or differentiation) at a time otherwise firm will ‘stuck in the middle’.

2.2. Determinants of Competitiveness of Bschools
Review of business schools literature provided the determinants of competitiveness of business schools. These determinants can broadly classify as cost related features and service quality features consistent to the generic strategies concept of Porter (1985). The determinants necessary for the competitiveness of a Bschools are identified in literature review are summarized in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Determinants</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost</td>
<td>(Businessweek, 2001; Qureshi, 2012)</td>
</tr>
</tbody>
</table>

The above mentioned determinants of competitiveness of Bschools are operationalized in literature as follows in Figure 1.
### Determinants of competitiveness of Business Schools

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operationalization</strong></td>
<td>such as offering international marketing, international management, internationally experienced teachers, facilitating students and staff for international research activities, conferences, seminars and workshops, remote connections with overseas business schools, international experience for students such as offering semesters or courses in other countries, internships in foreign etc., offering foreign languages, integrating international development &amp; exchange programs for student &amp; faculty, attracting foreign, faculty and students and looking for international accreditation.</td>
</tr>
<tr>
<td><strong>Selectivity</strong></td>
<td>employing standard quality procedures to select students, assessing students for academic features such as last attended school, degree, GPA and GMAT/GRE tests, assessing students for career-related features such as previous job experience and leadership qualities and assessing students for personal capabilities such as potential as a manager, businessperson, personality features, etc.</td>
</tr>
<tr>
<td><strong>Academic, Personal &amp; societal activities</strong></td>
<td>variety of programs, flexibility in programs, market applicability &amp; latest on curriculum, curriculum frequent reviews, up to date material to be presented for discussion other than textbooks, small size class, research &amp; enterprise, international business, leadership and entrepreneurship practically throughout the curriculum, overseas semester split programs, hands-on job statistics computer simulation and analytical skills, database, interactive learning etc., development of interpersonal and soft skill, instilling leadership and teamwork in students, integrated coursework as oppose to loyalty related topics, industry knowledge, counselling in matters such as stress, time management, art-forming etc., Assessment in grades assessment, use of effective pedagogy such as case studies, team projects, interactive &amp; experiential learning etc., students time spend on preparation before class, promoting corporate social responsibility and ethics in students, business school participation in social causes such as contribution in local community, charities, environment or voluntary programs, extracurricular activities for students, strict adherence intent and implementing plagiarism policy, fair &amp; error-free record keeping, diversity in class (women, domestic minorities)</td>
</tr>
<tr>
<td><strong>Employability</strong></td>
<td>presence of placement office or career development office, effects of business school in internship placements, preparing students for job such as CV making, job interview &amp; negotiation skills, providing online contact to recruiters etc., enhancing visit of recruiters to campus frequently, motivating students for starting their own business, provide guidance and facilitation to start ups of students, presence of “entrepreneurship development center” and incubation centre</td>
</tr>
<tr>
<td><strong>Research activities</strong></td>
<td>Research projects of business school with government, students &amp; faculty involvement in projects of business school, faculty &amp; students participation in research activities such as research activities papers and books, faculty &amp; students participation in conferences and seminars (nationally &amp; internationally), convene for research, creating PhD graduates, introducing research activities in MBA and MIBA level, business school publication of research journal &amp; producing good case studies</td>
</tr>
<tr>
<td><strong>Industry liaison</strong></td>
<td>Connections with industry, co-joint projects of industry &amp; business school, providing internship placements in industry to students and faculty, members of industry involved in board of studies, industry involvement in curriculum, upgrade, effects of business school to expose students to professional business community such as meetings, corporate galas, executive development programs, joint courses with industry etc., guest speakers from industry to classrooms and joint programs with industry for managers and faculty</td>
</tr>
<tr>
<td><strong>Living experience</strong></td>
<td>Attractive outlook of institute, latest equipment and technology, neat &amp; clean dress up employees, residential facilities for students &amp; faculty, facilities for extra-curricular activities, gym &amp; sports facilities, library, hygienic canteens, security means, availability of scholarships, Internet facility, internet and other online resources</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Fees &amp; associated cost</td>
</tr>
<tr>
<td><strong>Gender balance</strong></td>
<td>Adequate no of female in faculty, students and top management</td>
</tr>
<tr>
<td><strong>Alumni network</strong></td>
<td>Large alumni network at national and international level, connection of alumni network to guide students in career related matters and serve as a reference in acquiring job opportunities</td>
</tr>
</tbody>
</table>

---

**Figure 1.** Operationalization of 12 Determinants of Competitiveness of Bschools

#### 2.3 Measures of competitiveness

Customer satisfaction and reputation helps a firm in gaining a competitive advantage. Literature supports that firms strive to provide superior value to the customers and build relationship with customers to gain customer satisfaction. And it is due to customer satisfaction that competitiveness of firm or educational institute increases (Bauk and Jusufranick, 2014; Cabiddu, Lui & Piccoli, 2013; Massawe, 2013). Zeithaml, Parasuraman & Berry (1990) defined satisfaction as an overall judgment, perception or attitude on the superiority of service. The judgment is the result of difference between expectations and actual
experiences of customer. In more simple way, student satisfaction can be defined as a short-term attitude which is derived from the assessment of the received education service (Elliot and Healy, 2001). The studies of Sembiring (2018) and Sichtmann & Diamantopoulos (2013) linked reputation or image with the competitive advantage. Sofiati & Limakrisna (2017) defined reputation as how the general public understands the brand in terms of its services and communication program. Thus, stakeholders’ satisfaction and reputation of institution reflects its current level of competitiveness in relation to its competitors. Sallis (2002) divided stakeholders of higher education institute into external customers (Students, Parents, Employers, Government) and internal customers (Faculty). Being an internal stakeholder, faculty perspective is highly important for the fact that they are the service providers.

Conceptual Framework

Figure 2. Theoretical Framework of study

2.4 Methodology for the study
The total population of the study included 568 faculty members from 11 private and 18 Public universities in 2016. The targeted population of study comprised of only those Management Sciences departments in Khyber Pakhtunkhwa (business schools) affiliated with HEC recognized universities or DAIs. Yamane (1967) formula was used that derived a sample of 261. Stratified random sampling, a technique of probability sampling, was used in selecting respondents. Population was divided into strata and respondents for sample were derived in same proportion as it was representing in population known as proportionate allocation method.

2.5 Discussion on Items
The 12 determinants of competitiveness of Bschools (independent variables) were measured through a list of underlying items resulted from detailed and in-depth literature review. The detailed operationalization of these 12 variables is given in Figure 1. The dependent variable “Competitiveness” comprised of faculty satisfaction and reputation of bschool was measured with items taken from Owino (2013).
3 Analysis and Results

3.1 Reliability and Descriptive Statistics

The Cronbach’s Alpha for 13 variables of study is in the range of 0.6-0.8 showing reliability of constructs as the values lies within acceptable limits (Cooper & Schindler, 2003). Reliability and descriptive statistics of the construct are given in Table 2. Descriptive statistics showing Gender diversity has the highest value of 4.42, followed by Network of alumni having value for mean equal to 3.88. It shows the satisfaction of faculty on gender diversity and network of alumni of bschools. Internationalization aspect has the lowest mean of 1.94 showing negative perception of faculty is high over the aspect of internationalization of Bschools in Khyber Pakhtunkhwa. Moreover, the dependent variable Competitiveness has mean value of 3.8 showing faculty has optimistic view about the overall competitiveness of Bschools in KPK.

Table 2. 1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>No of Items</th>
<th>Cronbach α</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>4</td>
<td>0.7</td>
<td>3.23</td>
<td>0.76</td>
</tr>
<tr>
<td>Living experience</td>
<td>5</td>
<td>0.8</td>
<td>3.23</td>
<td>0.67</td>
</tr>
<tr>
<td>Selection process</td>
<td>4</td>
<td>0.6</td>
<td>3.33</td>
<td>1.05</td>
</tr>
<tr>
<td>Teaching staff</td>
<td>8</td>
<td>0.9</td>
<td>2.32</td>
<td>1.01</td>
</tr>
<tr>
<td>APS</td>
<td>7</td>
<td>0.9</td>
<td>3.67</td>
<td>1.18</td>
</tr>
<tr>
<td>Employment prospects</td>
<td>5</td>
<td>0.8</td>
<td>2.68</td>
<td>0.88</td>
</tr>
<tr>
<td>Research aspect</td>
<td>6</td>
<td>0.9</td>
<td>2.05</td>
<td>0.87</td>
</tr>
<tr>
<td>Industry aspect</td>
<td>4</td>
<td>0.9</td>
<td>3.56</td>
<td>1.26</td>
</tr>
<tr>
<td>Internationalization aspect</td>
<td>4</td>
<td>0.8</td>
<td>1.94</td>
<td>0.80</td>
</tr>
<tr>
<td>Network of alumni</td>
<td>3</td>
<td>0.8</td>
<td>3.88</td>
<td>0.90</td>
</tr>
<tr>
<td>Gender diversity</td>
<td>3</td>
<td>0.8</td>
<td>4.17</td>
<td>0.70</td>
</tr>
<tr>
<td>Leadership</td>
<td>8</td>
<td>0.9</td>
<td>2.16</td>
<td>0.90</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>4</td>
<td>0.7</td>
<td>3.78</td>
<td>0.81</td>
</tr>
</tbody>
</table>

3.2 Assumptions’ Statistics for Factor Analysis

Principle component analysis (PCA) with varimax rotation was applied in the study. The two tests KMO measure of sampling adequacy and Bartlett’s test of sphericity were carried before factor analysis. The recommended value for KMO is 0.6 or greater. The results for KMO values for all constructs are higher than 0.6 and satisfying the assumption of sample adequacy that there is no sample size issue. Results for Bartlett test of sphericity depicted that the P-value of the Bartlett’s statistic for all factors are significant, thus, assumptions of sphericity is satisfied (Leech, Barrett & Morgan, 2005) showing data is suitable for factor analysis. Bartlett’s test of sphericity means that at least one significant correlation between two of the items is observed. After obtaining satisfactory values for KMO and BTS, items were scrutinized for the values of communalities and factor loadings. Those items were retained in factor analysis having communalities higher than 0.50 (Leech et al., 2005) and have factor loading value of 0.5 or higher. Overall, the items deleted for constructs Living experience, Teaching staff, APS, Employability prospects, Research aspect, Industry aspect, Internationalization aspect, Leadership & management and Competitiveness of Bschools were 6,5,14,2,3,3,5,6 and 3 respectively. The KMO, BTS and P values are given in Table 3.

Table 3. Assumptions Statistics for Exploratory Factor Analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>KMO</th>
<th>BTS</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>0.7</td>
<td>251.36</td>
<td>0.000</td>
</tr>
<tr>
<td>Living experience (TF)</td>
<td>0.8</td>
<td>343.62</td>
<td>0.000</td>
</tr>
<tr>
<td>Selection process</td>
<td>0.7</td>
<td>229.90</td>
<td>0.000</td>
</tr>
<tr>
<td>Teaching staff (FT)</td>
<td>0.9</td>
<td>1666.41</td>
<td>0.000</td>
</tr>
<tr>
<td>Academic, personality &amp; societal</td>
<td>0.9</td>
<td>1308.15</td>
<td>0.000</td>
</tr>
</tbody>
</table>
development (APS)
Employment prospects/Placement (PC) 0.7 604.05 0.000
Research aspect(Res) 0.8 937.01 0.000
Industry aspect (Industry_L) 0.7 614.00 0.000
Internationalization aspect (IntlO) 0.7 438.62 0.000
Network of Alumni (Alumni) 0.7 227.74 0.000
Gender diversity (GBalance) 0.8 365.32 0.000
Leadership & management (LA) 0.8 1314.49 0.000
Competitiveness (CompDV) 0.7 350.71 0.000

4. Structural Equation Modeling
Structure equation modeling abbreviated as SEM, used in the study to investigate the hypothesized effect of independent variable on dependent variable. Before SEM, measurement model for each construct was tested to get good model fit. Modifications indices and covariance were applied where required. The results for measurement model for each construct are given in Table 4. The six fit indices were used in the study to check the fitness of model included chi-square/degree of freedom (CMIN/DF), Goodness of Fit Index (GFI), Root Means Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square Residual (RMR). All the values of fit indices from model 1 to model 13 were in the threshold proposed by Usluel, Askar, and Bas (2008) showing model is good fit.

Overall measurement model of 13 factors is presented as Model 14 in Figure 3 and Table 5. Model 14 include all the 12 independent variables and 1 dependent variable. The values of fit indices are also satisfactory and in line with Usluel et al (2008) showing good fit of the model.

Table 4. 2 Summary of Measurement models for Constructs

<table>
<thead>
<tr>
<th>Measurement model</th>
<th>Optimum Value (Usluel et al., 2008)</th>
<th>RMSEA</th>
<th>GFI</th>
<th>RMR</th>
<th>CFI</th>
<th>TLI</th>
<th>CMIN/DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1-Cost</td>
<td>0.07</td>
<td>0.98</td>
<td>0.04</td>
<td>0.97</td>
<td>0.95</td>
<td>2.71</td>
<td></td>
</tr>
<tr>
<td>Model 2-Living experience</td>
<td>0.05</td>
<td>0.98</td>
<td>0.02</td>
<td>0.99</td>
<td>0.97</td>
<td>1.79</td>
<td></td>
</tr>
<tr>
<td>Model 3-Selection process</td>
<td>0.08</td>
<td>0.98</td>
<td>0.10</td>
<td>0.98</td>
<td>0.95</td>
<td>4.13</td>
<td></td>
</tr>
<tr>
<td>Model 4-Teaching staff</td>
<td>0.02</td>
<td>0.98</td>
<td>0.02</td>
<td>0.99</td>
<td>0.99</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>Model 5-APS</td>
<td>0.05</td>
<td>0.98</td>
<td>0.02</td>
<td>0.99</td>
<td>0.99</td>
<td>1.75</td>
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<tr>
<td>Model 6-Employment prospects</td>
<td>0.03</td>
<td>0.99</td>
<td>0.01</td>
<td>0.99</td>
<td>0.99</td>
<td>1.36</td>
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<td>Model 7-Research aspect</td>
<td>0.02</td>
<td>0.99</td>
<td>0.01</td>
<td>1.00</td>
<td>1.00</td>
<td>0.69</td>
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<tr>
<td>Model 8-Industry aspect</td>
<td>0.03</td>
<td>0.99</td>
<td>0.02</td>
<td>1.00</td>
<td>0.99</td>
<td>1.22</td>
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<tr>
<td>Model 9-Internalization aspects</td>
<td>0.06</td>
<td>0.99</td>
<td>0.01</td>
<td>0.99</td>
<td>0.98</td>
<td>2.05</td>
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<tr>
<td>Model 10-Network of alumni</td>
<td>0.07</td>
<td>0.99</td>
<td>0.04</td>
<td>0.98</td>
<td>0.97</td>
<td>3.00</td>
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<tr>
<td>Model 11-Gender diversity</td>
<td>0.02</td>
<td>0.98</td>
<td>0.13</td>
<td>1.00</td>
<td>1.00</td>
<td>1.24</td>
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<tr>
<td>Model 12-Leadership</td>
<td>0.05</td>
<td>0.98</td>
<td>0.02</td>
<td>0.99</td>
<td>0.98</td>
<td>1.70</td>
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<tr>
<td>Model 13-Competitiveness</td>
<td>0.08</td>
<td>0.98</td>
<td>0.03</td>
<td>0.99</td>
<td>0.97</td>
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After obtaining satisfactory measurement models, the study has used SEM to analyzed relationship between 12 independent and dependent variable. The framed hypotheses from H1 to H12 were tested using SEM. The results are given in Table 6 showing that $R^2$ has a value of 0.319. It implies that 31.9% of variation in Competitiveness of Bschools is explained by 12 independent variables of study. The results depicted that Teaching staff ($\beta = 0.262$), employment prospects ($\beta = 0.215$), Gender diversity ($\beta = 0.477$), Leadership and management ($\beta = 0.214$) positively contribute to the Competitiveness of Bschools and results are significant having $P<0.05$. On other hand, Industry aspect ($\beta = -0.177$) and Internationalization
aspect (β= -0.116) were found to have significant and negative effect on Competitiveness of Bschools (P<0.05). Moreover, insignificant relationship was found between Cost, Living experience, Selection process, Academic, personality & societal development activities (APS), Research aspect and Network of alumni with dependent variable Competitiveness of Bschools (P>0.05). Therefore, the hypotheses H4, H6, H8, H9, H11, and H12 are accepted and hypotheses H1, H2, H3, H5, H7, and H10 are rejected.

Table 6. Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
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<th>Estimate</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
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<tr>
<td>H1</td>
<td>Comp &lt;--- Cost</td>
<td>-0.073</td>
<td>0.326</td>
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</tr>
<tr>
<td>H2</td>
<td>Comp &lt;--- Living experience</td>
<td>-0.022</td>
<td>0.765</td>
<td>Not supported</td>
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<tr>
<td>H3</td>
<td>Comp &lt;--- Selection process</td>
<td>-0.029</td>
<td>0.601</td>
<td>Not supported</td>
</tr>
<tr>
<td>H4</td>
<td>Comp &lt;--- Teaching staff</td>
<td>0.262</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Comp &lt;--- APS</td>
<td>-0.117</td>
<td>0.463</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6</td>
<td>Comp &lt;--- Employment prospects</td>
<td>0.215</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Comp &lt;--- Research aspect</td>
<td>-0.016</td>
<td>0.902</td>
<td>Not supported</td>
</tr>
<tr>
<td>H8</td>
<td>Comp &lt;--- Industry aspect</td>
<td>-0.177</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H9</td>
<td>Comp &lt;--- Internationalization aspect</td>
<td>-0.116</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H10</td>
<td>Comp &lt;--- Network of alumni</td>
<td>0.043</td>
<td>0.470</td>
<td>Not supported</td>
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<tr>
<td>H11</td>
<td>Comp &lt;--- Gender diversity</td>
<td>0.477</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H12</td>
<td>Comp &lt;--- Leadership &amp; management</td>
<td>0.214</td>
<td>***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

R²=0.319, Sig = .000

6. Discussion

The results of the study revealed that the determinants which are significantly and positively contribute to competitiveness of Bschools from faculty perspective are Teaching staff, Employment prospects, Gender diversity and Leadership & management. The significant positive contribution of Teaching staff to competitiveness of Bschools is also justified in the studies of Butt & Rehman, (2010), Gibson (2010), Owino (2012) and Shah, Nair, & Bennett (2013). The significant and positive influence of Employment prospects on competitiveness of Bschools is supported in the study of Deuren & Lhaden (2017) and Lenton (2015). The literature also supports the positive impact of Gender diversity. McMillan-Capehart, (2003) and Ali, Metz & Kulik (2007) asserted that gender diversity is positively associated with competitive advantage. The current study also found a positive influence of Leadership & management on competitiveness of Bschools consistent with the previous research studies of Schmidt (1995) and Ravindran & Kalpana (2012). The results of current study supports Peter Senge (1990) concept of learning organization where organization adapts to the changes through people in teamwork and it is the essence of leadership how to make it possible.

The results of the study unearth a negative and significant relationship between industry aspect and internationalization aspect with competitiveness of Bschools. The negative effect of industry aspect is in line with studies of Manjarrés-Henríquez, Gutiérrez-Gracia, Carrión-Garcia, & Vega-Jurado (2009) and Kaymaz, & Eryigit (2011). Moreover, the special circumstances of the province cannot be ignored in the context. The province and its industry suffered a huge setback from terrorism. It resulted in large number of closure of industrial units and higher ratios of unemployment (Social Policy and Development Centre Karachi, Pakistan (2010). Due to these reasons, industry became unattractive in the province and may be responsible for negative perception of faculty about industry interface. The Internationalization aspect was also found to have negative influence negating the earlier studies of Kiriakidis & Moos (2010) and Lambert & Usher (2013). It can be assumed from negative perception of the faculty about relationship of internationalization aspect and competitiveness of Bschools that they are not ready to embrace the new model of education because internationalization aspect is one of the important current challenge in

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academic and without faculty’s will it is not possible to deal with it (Bedenlier and Zawacki-Richter, 2015). The internationalization aspect is affecting teachers directly (Taylor, 2004).

Moreover the insignificant result of the study for cost is consistent with the study of Alzoubi & Emeagwali (2016). The insignificant results of the study for Living experience are line with Khan, Ahmed and Nawaz (2011). The insignificant results of the study for Selection process consistent with the view of Yorke (1999) that process is more crucial than input they selected in educational institutes. The insignificant results of the study for Academic, personal and societal development is negating the results of Owino (2012) showing that faculty in KPK are not favoring new teaching methodologies, new roles and new challenges; however these are the facets of globalization (Bedenlier and Zawacki-Richter, 2015).

7. Conclusion
The study used SEM to check the relationship between 12 independent variables (determinants of competitiveness) with one dependent variable i.e. Competitiveness of Bschooks. The results depicted that teaching staff, employment prospects, gender diversity and leadership & management have a significant and positive effect on dependent variable competitiveness of Bschooks. On other hand, industry aspect and internationalization aspects were found to have significant negative influence on competitiveness of Bschooks. The effect of determinants cost, living experience, selection process, academic, personality & societal development activities (APS), research aspect and network of alumni on dependent variable competitiveness of Bschooks was found insignificant. The future studies should be done on faculty perspective in KP to understand the factors that is creating a negative perception of faculty towards industry and internationalization aspects in Bschooks. Moreover, empirical studies should be done on determinants of competitiveness of Bschooks in future from other stakeholders’ perspectives such as top management, parents and employers to identify strategic factors for creating competitive advantage.

8. Theoretical and Contextual Contribution of the Study
The study used satisfaction and reputation (non-financial measures) together for measuring competitiveness that is not used before in literature. Moreover, empirical studies on determinants for the competitiveness of higher educational institutes and its effect on competitiveness are not done earlier which is the theoretical contributions of the study to existing knowledge. The current study has a contextual addition to the existing literature as work is not found in discipline of business education and it is novel in the context of Khyber Pakhtunkhwa, Pakistan.

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Neelankavil, J. P. (1994). Corporate America’s quest for an ideal MBA. *Journal of Management*


Impact of Managerial Self-efficacy, Improvement-oriented Employees' Voice Fearing External Threat on Performance

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ARTICLE DETAILS

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<td>Managers’ self-efficacy, being an active area of research, is important as it encourages employees’ performance. The feedback of highly self-efficacious managers in making better decisions is important to meet the global challenges that world is facing. This study explores literature on the relationship between managerial self-efficacy and employees’ performance. We further empirically tested the hypothesis in the banking sector in Pakistan and the results supported the theoretical implications. The study can serve as a basis for further studies and is practically useful for managers for improving employee performance.</td>
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<td>Available Online: 31 Dec 2019</td>
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Keywords
Managerial Self-Efficacy, Employees’ Performance

JEL Classification: M12, M19, P17.P19

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1. Introduction
Adopting manager’s positive perspective, the study explores that managerial self-efficacy impacts their employees’ performance. First, the phenomenon that due to managers’ efficacy beliefs and their abilities they can achieve high levels of performance, because they think they can obtain results that are important for them and having belief that they can do most of the tasks relative to others. Indeed, self-efficacy can increase performance and individuals activate their suitable task-related effort by perceiving themselves as highly self-efficacious and stay longer on task against difficulties. This self-regulatory behavior can increase the possibilities of successful results (Tims, Bakker, & Derks, 2014).

Self-efficacy refers to an individual’s perception that in a specific task situation how effectively one can perform (Blomquist, Farashah, & Thomas, 2016). In a number of analyses, the impact of self-efficacy has been examined on organizational settings. Very few studies checked its overall impact directly on employees’ performance (Cherian & Jacob, 2013).

High self-efficacious individual remains committed to their certain practices and when they face barriers or setbacks in goal achievement they keep on going (Latham, Seijts, & Slocum, 2016). Individuals with strong sense of self-efficacy set higher goals and they have solid dedication with the aim of achieving
them (Wood & Bandura, 1989).

This article builds various theoretical contributions towards literature on managerial self-efficacy and employee’s performance. This study, therefore, contributes in line with previous research to check the effect of high managerial self-efficacy on employee’s performance.

This article explores that all the researches that have investigated, self-efficacy has no direct effect that look on work performance. There exist various intervening, moderating and mediating variables in the relationship of self-efficacy/work performance (Iroegbu, 2015). This study would check the direct effect of self-efficacy on employees’ performance. Therefore, this study’s contributions serve to the understanding of managerial self-efficacy and the performance of employees from different perspectives. The findings of this study have also practical implications for knowing that how managerial self-efficacy impact employees’ performance. Taken simultaneously, we proclaim that when employees assess high managerial self-efficacy or manager’s positive affect about their sense of self-efficacy, the employees, in turn, are more likely to experience greater performance, because manager’s positive affect evokes employees to perform better.

2. Theory and hypothesis
2.1 Managerial self-efficacy
Managerial self-efficacy refers to the recognized ability of a manager within the organization domain to be successful and influential (Fast et al., 2014); subjective idea that one can successfully accomplish the behavior required to gain a desired outcome (Bandura, 1997); an individual’s confidence that he or she is able to performing a task and confidence in his/her ability to succeed in a task (Mensah & Lebbaeus, 2013). The employees who have perceptions about their beliefs of high efficacy are more inclined to be self-assured and optimistic for the achievement of their goals. The efficacy of employees increases when their goals are achieved and there are chances that they perform again the behaviors that contribute to success (Nansubuga, 2017).

The person with high self-efficacy can naturally astonish the processes and results in the give and take relationship between the employee/manager and the organization. It means that he/she is giving his/her best to their accessible tasks, spending plenty of high efforts because of having his/her strong beliefs for what he/she is able to achieve. It doesn’t matter how the organizational environment appears in front of them. Moreover they have discernment about their own capabilities, and they unavoidably would be progressing judgments about performance incentives, organizational rewards, the process by which those results are achieved, and in the manner the organizational players play their roles for those interchange (Çelik, Yeloğlu, & Yıldırım, 2016). Self-efficacy may play a major part in motivation (choice, effort, and persistence), learnedness, self-regulation and achievement (Schunk & DiBenedetto, 2016). According to the social cognitive theory, high effort and persistence are parts of individual’s inspirational behaviors that they have link with self-efficacy (Chaudhary, Rangnekar, & Barua, 2012).

High managerial self-efficacy is distinct from low managerial self-efficacy, one form of threatening feeling in which managers turn to voice averse (Fast et al., 2014). A main difference between these two types of self-efficacy is the belief of managers in their abilities. Additionally, high managerial self-efficacy focuses on manager’s positive behavior towards employee’s improvement-oriented voice because of their high self-beliefs in challenging situations.

This article focuses on high managerial self-efficacy for two theoretical reasons. First, managers can actively influence the voice, through inviting the feedback of employees directly on a range of problems. When voice is invited or solicited by managers, they build a climate on the whole to encourage the voice of employees and allow improvement-oriented ideas. Very few studies checked motivations of manager’s to show behavior that appreciate and prevent employees’ voice from managerial angle, or their true response to employees’ voice when it is provided.
2.2 Managerial self-efficacy and employees performance: From manager’s positive perspective

The convincing evidence encourages the view that managers occupy the roles that have formal control on juniors, practice a powerful requirement at work to show higher personal competence. In the perspective of manager’s roles, however the limit in which perceptions of managers are considered efficacious by themselves should impact in what way they access their work and their interaction with others in particular ways. Growing on such fundamental ideas, the research presents and checks the view that in the managerial role the self-perceived competence refers to as managerial self-efficacy (Fast et al., 2014). Self-efficacy defines self-confidence of someone who does liveliness in a certain environment (Kocaeksi & Gazioglugb, 2014). The current study is going to investigate manager’s positive influence such as how manager’s self-efficacy beliefs influence employee’s voice and in turn, their performance. Self-efficacy is known as the main component to determine the expertise and ability of leader (Mayer, Davis, & Schoorman, 1995).

An individual belief about his ability of achieving a valuable result is associated to his working and style. Over the 30 years, self-efficacy belief’s measures have appeared to be a better predictor of performance of person in many areas (Blomquist et al., 2016). Thus, a deficiency of self-efficacy does inhibit the task fulfillment, and a great level of self-efficacy promotes it (Beefink, Van Eerde, Rutte, & Bertrand, 2012).

Thus, from manager’s positive perspective, research suggests that manager’s self perceptions provide a strong close up in which they build awareness of and acquire step in their climate of work. Critically, in what way managers recognize their character and in presenting that character or role together with their sense of efficacy, then there is a possibility to affect how threatened they feel when employees speak up (Fast et al., 2014). When managers show positive response towards employee’s opinion, the employees are more prone to perform better. For example, self-efficacy is a form of self-referent thinking with which people judge and manages their own mental picture, experiences and way of acting (Bandura, 1977; van Dinther, Dochy, & Segers, 2011; Zimmerman, Bandura, & Martinez-Pons, 1992). It suggests that people spend their efforts on tasks according to their self-beliefs. For example, recent studies argued that high self-efficacious persons in a particular discipline (i.e. task and job specific) can depreciate the difficulty of the challenges of the job and they can tackle challenges of the job with their overrating ability (Cheema & Skultety, 2017).

Extrapolating it to the domain of performance, self-efficacy has appeared to be a well founded predictor of both motivation and task performance, and effect personal goal setting (Iroegbu, 2015). An appreciable effect of self-efficacy on Jordanian academics performance is associated to their high self-efficacy level (Haddad & Taleb, 2016). The empirical studies generally support the positive relationship between self-efficacy and job performance and the study expected positive relationship of task/job specific self-efficacy has with job performance (Chen, 2017). The study explains that the provision of the construct of project management self-efficacy as a quality measure of hopeful performance as any other studies of management have performed prior to their study (Blomquist et al., 2016). From manager’s positive perspective, then, certain positive responses must be present from managers to encourage employee’s responses to suggestions, and it helps employees to increase their performance.

Hypothesis 1. There is a positive relationship between managerial self-efficacy and employees’ performance.

3. Overview of study

Time lagged cross sectional primary data is collected from. employees of randomly selected sample branches of National Bank of Pakistan, Al-Falah Bank and Al-Baraka Bank. Faisalabad.
4. Method

4.1 Sample and procedure
The population of this research is (625) and through random sampling technique 238 employees National Bank of Pakistan, Al-Falah Bank and Al-Baraka Bank are selected for the purpose of data collection.

These three organizations have familiar characteristics that are especially related for testing hypothesis regarding managerial self-efficacy and employees’ performance. Preliminary interviews disclosed that managerial self efficacy has a contributing role in employee performance.

The research survey is self administered at each organization: Staff employees of banks selected through random sampling technique provided ratings of the independent and dependent variable. We collected data in a clear and cost effective way by means of the questionnaires. The same survey is used at each place, with simply minor changes in wording (e.g., “achieve results” versus “obtain outcomes” or “construct the organization or group improved” versus “make the organization or group better”).

The response rates of the three organizations show that at National Bank of Pakistan, 124 of 142 employees (87% response rate) complete the survey; at Al-Falah Bank 74 of 84 employees (88% response rate) complete the survey; and at Al-Baraka Bank 10 of 12 employees (83% response rate) complete it. In total, surveys were distributed to 238 employees with 208 responses (87% overall employee survey response rate). Six respondents did not show their working experience, monthly income and marital status, so we excluded their participation from the analysis, resulting in a sample of (202) participants relative to a final response rate of (84%) percent. We generated separate random number for rest of the 36 employees. After merging these three organization’s data, the final sample comprised of 238 employees (77.3% male). There were 54 females in this sample who rated a percentage of (22.7%) employees.

4.2 Measures

4.2.1 Managerial self-efficacy
Managerial self-efficacy is measured using eight items measured developed by Chen, Gully, and Eden (2001), in which it was assessed the perception that one can capably perform tasks and achieve the objectives. In managerial role, in order to ensure the realization of capability assessed by the measure, we particularly asked respondents to respond the questions as they associated it to their own work and job field. The sample items of the study were: “When facing difficult tasks, I am certain that I will accomplish them”; “I will be able to successfully overcome many challenges”; “I am confident that I can perform effectively on many different tasks”; and “Compare to other people I can do most tasks very well,” α = 0.86. Participants rated the items on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Pilot Testing of Items
These items are pre-tested to demonstrate internal reliability. The pre-test consisted of 25 full-time employed individuals from three banks. Participants rated the eight items for managerial self-efficacy. The eight items for managerial self-efficacy demonstrated internal reliability in this sample, α = 0.70. A test result of internal reliability is low here because of low sample size.

4.2.3 Employees performance
To assess employees’ performance we used the 21 items measure developed by Williams and Anderson (1991). We used all items in our research. These items were used to measure IRBs and OCBs in sample. Employees rated the items on a 5-point scale (1 = strongly disagree and 5 = strongly agree). Out of the 21 items, 7 items sample measured directed IRBs (e.g., “I meet formal performance requirements of the job”), 7 items measured interpersonally aimed OCBs (OCBIs; e.g., “I help others who have been absent”), and the other 7 items measured OCBs (OCBOs; e.g., “I conserve and protect organizational property”). The estimated reliability was α = 0.80.
4.3 Analytical strategy
Since staff employees were nested within three organizations, we used random sampling technique for the collection of data. As explained that having a complete list of sample units or participants and by using a table of random numbers individuals were selected (Martinez-Mesa, González-Chica, Duquia, Bonamigo, & Bastos, 2016). The variables were theorized and examined at the individual level (i.e., level 1 variables).

4.4 Results
Before testing the hypothesis, we evaluated the study variables through checking the correlation. Table 1 indicates a strong relationship between managerial self-efficacy, and employees’ performance $r = .611$ at significant level.

Descriptive statistics are given in Table 2. In the table the independent variable managerial self-efficacy has mean value 4.07, SD = .57. In the same way the values for employees performance are mean = 3.83 and SD = .42. The values for demographic variables of this study like gender, age, qualifications, marital status, monthly income, work experience at current institution and work experience in previous institution are mean 1.22, 1.21, 2.46, 1.49, 1.56, 2.09, 2.37 respectively. The SD values are .41, .48, .71, .50, .81, .1.14, .1.42 respectively.

The results of Table 3 present the regression analysis. Linear regression (LR) was used to test the hypothesis. Hypothesis 1 predicted that there would be significant positive relationship between managerial self-efficacy and employees’ performance ($\beta .611$, $t = 11.857$, $p < 0.05$). As illustrated in Fig. 1 our values of mean and standard deviation are within range. This helped for making a decision for further analysis.

<table>
<thead>
<tr>
<th>Table 1 Result of correlations.</th>
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<tr>
<td><strong>Correlations</strong></td>
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</tr>
<tr>
<td>- Managerial Self-efficacy</td>
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<tr>
<td></td>
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<tr>
<td>Employees Performance</td>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Note. N = 238.
** p < 0.01.
*p < 0.05.

<table>
<thead>
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<tr>
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<td>3 Qualifications</td>
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<td>4 Marital Status</td>
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<tr>
<td>5 Monthly Income</td>
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<td>6 Work Experience at Current</td>
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<td>Variables</td>
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<td>Institution Work Experience</td>
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<td>Previous Institution 7</td>
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<tr>
<td>8 Managerial Self-efficacy</td>
</tr>
<tr>
<td>9 Employees Performance</td>
</tr>
</tbody>
</table>

Note. N = 238.

Table 3

<table>
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<th>DV: Employees performance</th>
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<tr>
<td>Model 1</td>
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<td>Main effects</td>
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<tr>
<td>Managerial self-efficacy</td>
<td>.611</td>
</tr>
<tr>
<td>Employees’ performance</td>
<td>.373</td>
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<td>F value</td>
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</table>

Fig. 1. Mean and standard deviation of managerial self-efficacy and employees’ performance.

4.5 Discussion
This study discloses that managerial self-efficacy is positively related to employees’ performance. In regression analysis, there is significant positive relationship between variables of the study. Almost every organization is facing different kind of external threats. The role of employees regarding their performance is very important and they are very much concerned with their organization.

Being highly identified employees of the organization they point out problems and giving their solutions to management in order to protect their organization. The manager’s role is important regarding the voice of the employees, if they have high self-efficacy then they are more likely to welcome the employees
improvement-oriented ideas and due to effect of their high self-efficacy the employees perform better.

This study shows direct effect of managerial self-efficacy on employees’ performance positively. This research extends further than this line of analysis and exposes the effect of high managerial self-efficacy on employees’ performance. Our results show that high self-efficacious managers encourage the employees’ improvement-oriented voice fearing external threat.

Lebel (2016) study found that when employees feel that their supervisor is open to their input then their fear of external threat associates positively to voice. The results of this study are inline that managers being highly self-efficacious take the employees improvement-oriented voice because they have strong self beliefs. Therefore, the overall findings of this study indicate a significant positive relationship between managerial self-efficacy and employees’ performance.

4.6 Theoretical contributions
This article’s main contribution exists in theoretically and empirically discovering that the employees’ performance increases experiencing high managerial self-efficacy. Previous research has concentrated on how low managerial self-efficacy effect improvement-oriented voice, one can logically expect that persons having low managerial self-efficacy would seek rigidly to benefit on other’s recommendations and ideas (Fast et al., 2014). Mostly in organizations managers are considered as a sign of fear, this fear lead employees to silence. However, fear’s sources not always impact voice in equally. A relevant contribution lies in extending previous voice research by suggesting that employees represent the whole organization and the organizations that do not give voice opportunities to employees, to share their views and ideas, cannot make progress in a world of competition. Doing so follows calls for research exploring how employees identification with their organization encourage their effort or action in which they protect their larger organization, by proposing the solutions of the problems (Lebel, 2016). Self-efficacious managers take improvement-oriented voice positively rather negatively because they have higher self beliefs in challenging situations. Thus, this study emphasizes that sound assessment of these variables in context of human resource management is important to understand and predict behavior patterns and performance of employees, suggesting that by understanding these variables we can address problems relating to employee’s performance.

Similarly the contributions of this article lie by recognizing a contingent relationship between managerial self-efficacy and employees’ performance. The relationship between managerial self-efficacy promotes the notion that gives important implications for managerial practices, that leader’s positive affect boost up employee voice by means of psychological safety. The study also gives advice to organizations that managers affect should be positive to subordinates while they are contacting with them (Liu et al., 2017). In such a case, the perception of employees regarding their supervisor’s accessibility to information is considered a vital contextual motive that may glint voice fearing external threat (Lebel, 2016).

Thus, this article’s results encourage conceptualizations of high managerial self-efficacy as effecting employees’ performance at multiple levels in the causal chain. The contribution of this article is also towards identifying why managerial self-efficacy facilitates or increases employees’ performance. There is also a psychological mechanism that explains manager’s perceptions to appreciate the voice of employees, which in turn, increases their performance. Additionally, managers who are open to employees’ ideas help transform improvement-oriented employees’ voice fearing external threat into their performance, indicating to employees that their effective and active attempts on organization’s behalf will be encounter positively to the overall organization success.

This study also constructs on past work by Cherian and Jacob (2013), and Lai and Chen (2012) study findings show that self-efficacy cannot become the determinant of performance lonely, there are other factors like locus, tasks complexity and effort that can affect positively their performance, which is to some extent dissimilar to what the researcher of this study concluded, that managerial self-efficacy shows
direct positive effect on employees performance.

Additionally, this study’s results describe the positive relationship between managerial self-efficacy and employees’ performance similar to the study of Iroegbu (2015) which has found the significant positive correlation between job specific self-efficacy and work performance.

4.7 Limitations, strengths, and future directions
The results of this study facilitate us to delve into the relationship between managerial self-efficacy and employees’ performance. This study’s results should be accomplished in view of its limitations, many of which proposed possible path and offer various opportunities for future research. This study was a cross-sectional field study of three organizations. Specifically, this research employed cross-sectional data from a range of bank branches to better construct the relationship between variables. Additionally, multisource data in this study was shown to partially equalize possible common method bias.

Furthermore, data for independent and dependent variables were collected at the same time. Therefore, research in future could perform experimental designs to investigate causality in a more accurate way. An ecological validity challenge may exist by doing this, creating manipulations like in a lab setting managerial self-efficacy effects participants in the similar way as employees confronting managerial self-efficacy in organizational settings. Moreover, in a lab setting manipulation in high levels of managerial self-efficacy, such as building a scenario through which employees understand they can undergo real consequences (e.g., don’t give value to employee’s opinion and strict behavior of instructors in class) may cause psychological and moral problems. In spite of these dilemmas, we argue besides other voice scholars (Milliken et al., 2015), expressed that employees are given the reason that it is easy to speak about the issues and problems being faced at work place might seem as a straightway thing to do. Such styles are found to be effective on individual’s job performance and assigned tasks and duties.

Additionally, there can be other possible fears or threats apart from economic threat, fear of layoffs and loss of revenue with improvement-oriented employees voice that direct managerial self-efficacy towards employees’ performance. According to this aspect, organization’s welfare depends upon privilege of objection because it is as necessary for organization’s welfare as it is for the defense of human rights (Redding, 1985).

While beyond the view of this article, other potential proactive voice behaviors should be discovered in future research following managerial self-efficacy. For example, voice up proactively in favor of organizational strategy and policies (Maynes & Podsakoff, 2014). There may be reasons because of employee’s familiarity to existing policies and they don’t want to do any change, so by perceiving manager’s positive effect regarding their self-efficacy they voice up.

This study is conducted on banking sector of Faisalabad Pakistan. The main limitation of this study is that it is conducted on only three banks with their branches which are not representing the whole banking sector of Pakistan. Future researches can be conducted on other sectors like multinational companies to find out if study variables may effect in a different way in line with the sector in which the people work in. Future researches could explore the effect of the study variables with low levels of managerial self-efficacy.

4.9 Practical contributions and conclusion
This study gives practical implications for managers and employees in organizations. The study results suggest that managerial self-efficacy is important during times of uncertainty when employees raise their improvement-oriented voice. Specifically, managers can encourage employees during times of uncertainty by taking their ideas and suggestions. Managers can take measures to solicit employees to voice their ideas and suggestions in spite of fear by becoming more receptive towards them. Therefore, in the time span of economic uncertainty, managers’ role must be supportive towards improvement-oriented ideas.
Such attempts from managers may facilitate the organizations to improve internally by taking the advantages of voice.

This study discerning the notion of Lebel (2016, 2017) that managers and leaders have a powerful influence on employee’s behaviors. For example, the researchers believe that when they are open to employees input because of their high self-efficacy then employees fears will be positively related to speaking up at work while fearing external threats. Our results indicate that managerial self-efficacy appears to have a significant positive relationship with employees’ performance.

REFERENCES
Some Preliminary Evidence of Price Setting Behaviour from the Industrial Estates of Khyber Pakhtunkhwa

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2 Assistant Professor at the Department of Economics University of Peshawar, Pakistan. amjadamin@uop.edu.pk

ARTICLE DETAILS

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<th>ABSTRACT</th>
</tr>
</thead>
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<tr>
<td>Revised format: 30 Nov 2019</td>
<td>Price setting behaviour is a crucial issue for the knowledge of monetary policy transmission mechanism. The objective of the study is to analyze the relationship between firm’s characteristics and the price setting behaviour of firms, using survey-based data. The survey is conducted in the year 2017 in four major industrial estates of Khyber Pakhtunkhwa, namely, Hayatabad, Nowshera, Gadoon and Hattar Industrial Estates. A sample of 342 firms is selected through stratified random sampling and respondents are the managers of the firms. According to results the price elasticity of demand will be inelastic and the number of time to change price decreases in case of less competitors. If the firm is engaged in a contract, then there are more chances that the firms have only regular customers and imperfect competitive market structure. Firms which are involved in input price contracts, they are also involved in output price contracts, so nominal wage rigidity leads to output price rigidity. This paper find that traditional channel of monetary policy is weak as degree of price rigidity is low. Therefore, it is important for monetary policy of Pakistan to focus on other channels of monetary transmission mechanism.</td>
</tr>
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<td>Available Online: 31 Dec 2019</td>
<td></td>
</tr>
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</table>

Keywords: Price Setting, Price Rigidity, Price Contracts, Market Structure, Price Elasticity of Demand

JEL Classification: E64, E69, L11

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1 Introduction

Why some of the firms change their prices more often than the other firms and the price setting time is not uniform across companies and exposes enormous volatility? Literature has shown some of the factors which can trigger price adjustment. These factors are level of competition, type of customers, size of the firm, the existence of the economies of scope and the presence of implicit or explicit arrangements and many other different actions (Blauadow & Burg, 2018). Likewise, firms can be hesitant to alter prices guided by the impression that customers could wrongly relate a cutback in price with a lowering in the quality of the products, so in this way blocking downward alterations in prices (Peneva and Ekaterina 2009). Moreover, collapse in coordination between different firms, can explain why a firm does not want to change the product price as it fears the competitors will not do the same (Hall and Yates, 1998). Arrow (1959) points out that in the absence of market power, a firm cannot affect the price of a commodity.
Blinder (1991) is the pioneer, who study the price setting behaviour by using micro data. After this, much research has been carried out to study price stickiness at the firm level, but most of the literature about price setting behaviour is related to developed countries. In the case of Pakistan, only few studies have focused on the price setting behaviour of firms using survey based data. However, these studies have ignored the heterogeneous response of firms to change in prices to different shocks and the role of the firm characteristics in price setting (Sohail, & Fatima, 2018; Choudhary, et.al, 2011; 2016; and Malik et. al, 2008).

The objective of the study is to analyse the price setting behaviour of firms located in four Industrial estates of Khyber Pakhtunkhwa, using survey-based data. In this regards different variables are linked with the price setting behaviour. These factors are price elasticity of demand, price contracts, market structure, price rigidity after calculation, inventories, output and input price contract.

Rest of the paper is organized as; in section 2 famous theories of price setting are discussed, in section 3 population and sample procedure is explained. in section 4, results are discussed and in section 5, conclusion is explained.

2. Theories of Price Stickiness
This section explains famous theories of price rigidity given in literature. Fixed incremental cost is an important theory of price rigidity. If there is any change in demand, then there will be no change in the price, if markups and marginal cost is constant (Hall and Yates, 1998). In the cost base pricing model, the demand for the product will not affect the price, the price of the commodity depends on the cost of production (Blanchard, 1983). According to the implicit contract theory, the firms try to not the change the price with higher frequency. While in the explicit contract theory the firms have a contract with their clients that they will not change the price of the product in a given time period (Okun, 1981). The price threshold is an important theory of price rigidity. The firm keeps the price in the given threshold, even if there is any shock to the economy because otherwise, they will lose the trust of their customers (Hall and Yates, 1998). An imperfect competitive market is also the leading cause of price rigidity because firms have monopoly power due to which they can set the price according to their desire (Blanchard and Fischer 1989). Imperfect information is also the source of price rigidity. According to the classical, in case of perfect information, the price and wage will flexible. While according to the Keynesian, the price and wage will be rigid in case of imperfect information (Taylor, 1979). High price is a symbol that this product will be of best quality. So that why the firm will not decrease the price of its product, because the people will think that price decrease means the quality of the product is decreased. Based on quality and price relationship, prices are downward rigid and upward flexible (Allen,1988). According to physical menu costs theory, when there is any shock, the restaurant does not change price due to reprinting menu cost and advertisement cost. However, most of the time shocks are temporary. So that is why menu cost is one of the determinants of rigidity (Ball & Mankiw, 1994).

3. Population and Sampling Plan
Khyber Pakhtunkhwa (KP) is the province of Pakistan. In KP, there are 14 main industrial estates, for this study four major industrial estates are selected, i.e. Hayatabad, Nowshera, Hattar and Gadoon Amazi industrial estate. The following procedure is adopted for the selection of the sample. First, those firms are included, which are registered before July 2017. Second, those firms who are not involved in production since June 2106, are excluded from in the initial population. Third, to avoid the over-representation of small firms, those firm who have less than ten employees, are not considered in the sample selection process. Fourth, only those firms are considered, which are involved in the production and not only involved in trading activities. The firms which are left after this filtration process make the initial population (i.e. 860 firms). A sample of 342 is calculated from the initial population on the basis of 95% confidence interval and 5% margin error. The data is collected through stratified random sampling technique.
To collect data about price setting of the firm, the structured face to face interview approach is used to collect quantitative data through questionnaire from Industrial Estates of Khyber Pakhtunkhwa. The design of the study questionnaire follows Blinder (1991). It consists of three sections: section A on general information of firms; section B on Price setting; and section C on determinants of price change.

4. Results
This section of the study relates firm characteristic, for example market structure, type of customers with different variables, price rigidity before calculation and after calculation, price elasticity of demand, price adjustment process.

4.1 Price rigidity after calculation
According to Akerlof (1970) price is not a meaningful and suboptimal behaviour due to negligible effect. In most of the situation the consumer has asymmetric information about the market price. So, the information to change the price may lead to a costly decision because it will push the consumer to reopen the set of alternatives available in the market. So that’s why the manager will be careful to change price, which lead to price rigidity after calculation. To check this, the firm was asked that how many times did firm do such computations regarding the price of your main product and how many times did firm effectively change the price of your main product in 2017. According to table 1 number of time firm change the price in 2017 varies from 0 to 12 times and the number of time the firm did computations regarding price varies from 0 to 14. According to table 1 more the 80% of the firms occur in the range who did computation from 0 to 6 times and change price from 0 to 4 times. It means, the number of times the firm change the price of its main product is less than the number of times they did computation, which is the symptom of price rigidity. Similarly, according to the table 1 less than 20% of the firms, who did calculations from 6 to 14 times, the percentage of frequency of price change is greater than the percentage of the number of times firm did computation regarding price. So the hypothesis that price is not a meaningful and suboptimal behaviour due to negligible effect is accepted, it means price information and computation lead to price rigidity.

Table: 1 Number of time firm change the price in 2017 and Number of time firm did computations regarding price in 2017

<table>
<thead>
<tr>
<th>Number of time firm change the price in 2017</th>
<th>Number of time firm did computations regarding price in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>0  Count</td>
<td>14</td>
</tr>
<tr>
<td>1  Count</td>
<td>2</td>
</tr>
<tr>
<td>2  Count</td>
<td>0</td>
</tr>
<tr>
<td>3  Count</td>
<td>0</td>
</tr>
<tr>
<td>4  Count</td>
<td>0</td>
</tr>
<tr>
<td>5  Count</td>
<td>0</td>
</tr>
<tr>
<td>6  Count</td>
<td>0</td>
</tr>
<tr>
<td>7  Count</td>
<td>0</td>
</tr>
<tr>
<td>8  Count</td>
<td>0</td>
</tr>
<tr>
<td>9  Count</td>
<td>0</td>
</tr>
<tr>
<td>10 Count</td>
<td>0</td>
</tr>
<tr>
<td>12 Count</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

4.2 Price Elasticity of Demand and Market Structure
Price elasticity of demand is important characteristics of the market structure. In perfect competition, the price elasticity of demand is elastic, while in the case of imperfect competition price elasticity of demand is inelastic. To capture the market structure, the firm is asked how many other firms are producing the same product. To capture the role of price elasticity of demand in price decision making, the firms are
asked that if they increase (decrease) the price of their main product by 10% and all the other things remain unchanged, by what percentage would the number of sold units of their product decrease (increase) i.e. more than 10%; approximately 10%; less than 10%; or uncertain. According to table 2, in case of less number of rival firms the price elasticity of demand of majority of firms is inelastic, while in case of more rival firms the firms give a mix results.

Table 2 Price Elasticity of Demand and Market Structure

<table>
<thead>
<tr>
<th>Price Elasticity of Demand</th>
<th>Market Structure</th>
<th>No main</th>
<th>Less than 5</th>
<th>Between 5 &amp; 20</th>
<th>More than 20</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Than 10%</td>
<td>Count</td>
<td>8</td>
<td>10</td>
<td>22</td>
<td>14</td>
<td>54</td>
</tr>
<tr>
<td>% within Price Elasticity</td>
<td>14.8%</td>
<td>18.5%</td>
<td>40.7%</td>
<td>25.9%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>% within Market Structure</td>
<td>36.4%</td>
<td>12.8%</td>
<td>14.1%</td>
<td>16.3%</td>
<td>15.8%</td>
<td></td>
</tr>
<tr>
<td>Approximately 10%</td>
<td>Count</td>
<td>8</td>
<td>16</td>
<td>12</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>% within Price Elasticity</td>
<td>18.2%</td>
<td>36.4%</td>
<td>27.3%</td>
<td>18.2%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>% within Market Structure</td>
<td>36.4%</td>
<td>20.5%</td>
<td>7.7%</td>
<td>9.3%</td>
<td>12.9%</td>
<td></td>
</tr>
<tr>
<td>Less than 10%</td>
<td>Count</td>
<td>0</td>
<td>22</td>
<td>36</td>
<td>18</td>
<td>76</td>
</tr>
<tr>
<td>% within Price Elasticity</td>
<td>0%</td>
<td>28.9%</td>
<td>47.4%</td>
<td>23.7%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>% within Market Structure</td>
<td>0%</td>
<td>28.2%</td>
<td>23.1%</td>
<td>20.9%</td>
<td>22.2%</td>
<td></td>
</tr>
<tr>
<td>Uncertain</td>
<td>Count</td>
<td>6</td>
<td>30</td>
<td>86</td>
<td>46</td>
<td>168</td>
</tr>
<tr>
<td>% within Price Elasticity</td>
<td>3.6%</td>
<td>17.9%</td>
<td>51.2%</td>
<td>27.4%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>% within Market Structure</td>
<td>27.3%</td>
<td>38.5%</td>
<td>55.1%</td>
<td>53.5%</td>
<td>49.1%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>22</td>
<td>78</td>
<td>156</td>
<td>86</td>
<td>342</td>
</tr>
<tr>
<td>% within Price Elasticity</td>
<td>6.4%</td>
<td>22.8%</td>
<td>45.6%</td>
<td>25.1%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>% within Market Structure</td>
<td>100.0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

4.3 Price rigidity and Market Power

According to the economic theory market power is the necessary condition for price rigidity. To the market power in table 3, the firms are asked that how they set the price of their main products? To capture the price rigidity, the firms were asked that on average how many times do you change the price of your product in one year?

Table 3 shows the number of time firm change price varies from 0 to 6 in one year. 0 to 2 times means price rigidity and 3 to 6 times mean price flexibility. According to table 3, 208 firms out of 342 said that we set the price. Within these firms, 73% of firms change price from 0 to 2 times. Furthermore, as the number of time increases from 1 to 6, the percentage within the category that "we set the price" decreases. Similarly, if table 3 is analyzed from the angle of price rigidity, it gave the same picture. According to the last row 248 firms out of 342 firms change the price from 0 to 2 times and 61.3% of these firms occurs in the category of “we set the price”. So, the above discussion shows that as the market power increases, the tendency to change price decreases.

Table 3 Market Power and Price Rigidity

<table>
<thead>
<tr>
<th>Market Power</th>
<th>We set the price</th>
<th>Number of times price change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Market power</td>
<td>2.9%</td>
</tr>
<tr>
<td></td>
<td>% within Price Rigidity</td>
<td>60%</td>
</tr>
<tr>
<td>The price is set by the parent company</td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Market power</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>% within Price Rigidity</td>
<td>0%</td>
</tr>
<tr>
<td>Price is set through direct negotiation with the clients</td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>% within Market power</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>% within Price Rigidity</td>
<td>0%</td>
</tr>
</tbody>
</table>
4.4 Contract and Market Power
As market power increases, the tendency of longer contract increases. To capture it the firms were asked whether they engage in price contract for periods longer than one year. According to table 4, only 124 out of 342 firms are involved in price contract, which is low. Furthermore, within 124 firms, 98 firms who are engaged in price contract, set the price by itself or the parent company and only 12 firms does negotiate with their clients, it means most of the firms who are engaged in price contract have imperfect competitive market structure.

Table 4 Contracts and Market Power

<table>
<thead>
<tr>
<th>Count</th>
<th>2</th>
<th>10</th>
<th>6</th>
<th>6</th>
<th>0</th>
<th>2</th>
<th>4</th>
<th>30</th>
</tr>
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<tbody>
<tr>
<td>% within Market power</td>
<td>6.7%</td>
<td>33.3%</td>
<td>20%</td>
<td>20%</td>
<td>0%</td>
<td>6.7%</td>
<td>13.3%</td>
<td>100%</td>
</tr>
<tr>
<td>% within Price Rigidity</td>
<td>20%</td>
<td>6.9%</td>
<td>6.4%</td>
<td>16.7%</td>
<td>0%</td>
<td>20%</td>
<td>13.3%</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
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<th>0</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Market power</td>
<td>50%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
</tr>
<tr>
<td>% within Price Rigidity</td>
<td>20%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>10</th>
<th>144</th>
<th>94</th>
<th>36</th>
<th>18</th>
<th>10</th>
<th>30</th>
<th>342</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Market power</td>
<td>2.9%</td>
<td>42.1%</td>
<td>27.5%</td>
<td>10.5%</td>
<td>0%</td>
<td>20%</td>
<td>13.3%</td>
<td>8.8%</td>
</tr>
<tr>
<td>% within Price Rigidity</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.5 Contract and Type of Customers
Type of customers is a significant factor in price rigidity. According to the table 5 within 124 firms, which are involved in price contracts, 6.5% of the firms have only occasional customers, while 41.9% of the firms have only regular customers and 51.6% of the firms have combination of both. So, majority of the firms which are involved in price contracts have regular customers. According to the table 5 within 218 firms, which are not involved in price contracts, 9.2% of the firms have only occasional customers, while 33% of the firms have only regular customers and 57.8% of the firms have combination of both. So, majority of the firms which are not involved in price contracts have regular customers. Based on the above result it can be concluded that if firms have regular customers, then it is not necessary that firm will be involved in contract. However, if firm is engaged in price contract, then there are more chances that the firms have only regular customers.

Table 5 Contract and Type of Customers

<table>
<thead>
<tr>
<th>Count</th>
<th>72</th>
<th>20</th>
<th>126</th>
<th>218</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Contracts</td>
<td>33.0%</td>
<td>9.2%</td>
<td>57.8%</td>
<td>100%</td>
</tr>
<tr>
<td>% within Type of Customers</td>
<td>58.1%</td>
<td>71.4%</td>
<td>66.3%</td>
<td>63.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>52</th>
<th>8</th>
<th>64</th>
<th>124</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Contracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 4.6 Output Price Contract and Input Price Contract

Output price rigidity and input price rigidity is the central point of discussion in the macroeconomic theory: if firms are involved in both inputs and output contracts then aggregate supply curve will be horizontal. According to results in table 6, 124 firms are involved in price contract for longer periods than one year. And within these 124 firms, 35% firms are engaged in contracts for input purchases at a constant price. Similarly, 100 firms are involved in input price contract, and within these 44% firms are engaged in price contract for longer periods than one year. According to the table 6, the percentage of the firms involved in both types of contract are low, i.e. output price contracts (36.3%) and input price contracts (29.2%). According to results in table 6, 218 firms out of 342 are not involved in price contract. And within these 218 firms, 74.3% are not engaged in contracts for input purchases. Similarly, 242 firms are not involved in input price contract, and within these 66.9% are not engaged in price contract. It means majority of the firms are not involved in both types of contract. However, firms which are involved in input price contracts, they are also involved in output price contracts, so nominal wage rigidity leads to output price rigidity. But firms who are involved in the output price contract, it is not necessary, that these firms will be involved in input price contract.

<table>
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<tr>
<th>Input Price Contract</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>162</td>
<td>56</td>
<td>218</td>
</tr>
<tr>
<td>% within Output Price Contract</td>
<td>74.3%</td>
<td>25.7%</td>
<td>100%</td>
</tr>
<tr>
<td>% within Input Price Contract</td>
<td>66.9%</td>
<td>56%</td>
<td>63.7%</td>
</tr>
</tbody>
</table>

#### Total

<table>
<thead>
<tr>
<th>Count</th>
<th>242</th>
<th>100</th>
<th>342</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Output Price Contract</td>
<td>70.8%</td>
<td>29.2%</td>
<td>100%</td>
</tr>
<tr>
<td>% within Input Price Contract</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>% of Total</td>
<td>70.8%</td>
<td>29.2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### 5. Conclusion

The objective of the study is to analyze the relationship between firm’s characteristics and price setting behaviour. According to results as the degree of market power increases, the price elasticity of demand will be inelastic and the number of time to change price decreases. If firms have regular customers and imperfect competitive market structure, then it is not necessary that firm will be involved in the contract. However, if the firm is engaged in a contract, then there are more chances that the firm has only regular customers and less competitors. Firms which are involved in input price contracts, they are also involved in output price contracts, so the above hypothesis is accepted that nominal wage rigidity leads to output price rigidity. But firms who are involved in the output price contract, it is not necessary, that these firms will be involved in input price contract. This paper find that traditional channel of monetary policy is weak as degree of price rigidity is low. Therefore, it is important for monetary policy of Pakistan to focus on other channels of monetary transmission mechanism.
References


An Analysis of the Tariff and Non-Tariff Barrier on Global Cottonseed Oil Trade

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ARTICLE DETAILS

ABSTRACT

This study is conducted to estimate the effect of both tariff and non-tariff barriers on global crude cottonseed oil, refined cottonseed, and cottonseed oil. This effect is estimated for a sample of developed and developing countries using data over the period 2005 to 2015. The study employed three maximum residue limits (MRL) indices, namely Li and Beghin, Actual Heterogeneous Index (AHI) and Heterogeneous Index (HI) as well as two estimation techniques, Poisson and Ordinary Least Square method (OLS). Marginal effects are obtained by using the Poisson technique. Estimated parameters such as distance, common border, PTAs, are found significant and according to prior expectations. The role of tariffs is more substantial in the oilseed trade compared to the trade in cottonseed crude oil. It is also found that the estimated elasticity by using Poisson technique is highly elastic as compared to OLS method. However, the aggregation of commodities at a higher level, as in the case of cottonseed oil, shows that the effect of the tariff on trade becomes statistically insignificant. Further, cottonseed crude oil is a major commodity affected by tariffs, particularly in the case of trade between North-North and North-South countries. Finally, the effect of tariffs on cottonseed refined oil trade was found insignificant.

JEL Classification:
F13, F01

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1. Introduction

Cotton is a major worldwide commercial cash crop and primary source of fiber. Cotton is also used to produce more food for humans and feed for animals. Cottonseed is a byproduct of cotton, which further consists of hull and kernel. The hull of the cotton seed produces fiber and lint while, kernel carries protein, oil, carbohydrates, vitamins, and minerals. The top five cottonseed oil producers are China, India, Pakistan, the United States, and Uzbekistan. Cottonseed oil is further a by-product of cottonseed and an important source of edible oil. Cottonseed oil is also known as “Heart oil” which is one of the most unsaturated edible oils. The quality of cottonseed oil depends on time, place and season in which cotton
plant is located in the field. Furthermore, the high-quality cottonseed oil is produced in dry weather and low-quality cottonseed oil is produced in wet weather conditions. The crude cottonseed oil has good stability due to the presence of gossypol on cottonseed (Bambawale et al., 2004).

During the refining process, gossypol is removed from cottonseed oil. It is a natural toxin that protects cotton plants from naturally damaging insects and shields cotton plants (Kanoi, 2005). Non-refined cottonseed oil is also used as a pesticide. It is used in cosmetics, laundry detergents and insecticides. The cottonseed oil contains a high concentration of vitamin E, fatty acid, and antioxidants that are beneficial to human skins, moisturizing, anti-aging, and anti-inflammatory properties. Crude oil also contains a chemical called as aflatoxins that has a strong flavor and odor. These are extracted to turn crude oil into excellent edible oil during the refining process. Being healthy food, its demand has been growing gradually, and thus creating market expansion opportunities for cotton. The gossypol present in cottonseed not only acts naturally against predators but also makes insects infertile by reducing sperm production in male insects. The Codex Committee of 1967 declared that gossypol is not a health hazard as it is removed during the refining process.

The stored value of cottonseed oil is also good and is comparable with other edible oils (Abdelhameed 2013). Cottonseed oil is better than other edible oils as it lasts a long time in a relatively high temperature due to its anti-oxidant contents. Like olive oil, cottonseed oil consists of polyunsaturated fatty acids that helps in lowering LDL (“bad” cholesterol) and increase HDL (“good” cholesterol).

Non-tariff barriers (NTBs) can significantly restricts trade among nations. Otsuki, Wilson, and Sewadeh (2001) estimated the effect of protectionist measures on the imports from Africa to European Union (EU). They found a negative relationship between the imports from Africa to EU due to these NTBs. Beghin & Bureau (2001) concluded that the non-tariff barriers have a necessary role in future trade agreements. They argued that the governments are required to be abreast of the costs MRL policies and to accordingly frame the policies keeping them in view.

There has been a dearth of understanding of the effect of MRLs on trade among developed countries or developing countries in the case of cottonseed oil. Therefore, an estimation of the effects of tariffs and non-tariff barriers will highlight the importance of MRLs on countries' trade. Finally, it is also not known whether MRLs and tariff effects on trade are similar or different. Similarly, what is the nature of these effects among developing countries and developed countries? Researchers, Policymakers, investors, and entrepreneurs need such knowledge for their decision making.

The present study focuses on the impact of NTMs and tariff on global cottonseed oil trade. The reasons for focusing on the global cottonseed oil trade for the study are as follows: the impact and incidence of NTMs in the cottonseed oil sector are great and need attention. Usually, trade restriction in this sector is related to shipments, labeling and marking requirements. In the USA, trade restrictions are in the shape of security parameters, document verification at ports while the restriction imposed by the EU in this sector comprises of issues relating to compliance with labor and environmental norms. The imports and exports of cottonseed oil are greatly affected as tariff rates are reduced (Saini & Gordhan, 2007). Several studies are available where the effects of NTMs on specific countries’ trade are studied; however, not many focus on the effect of NTMs on global cottonseed oil trade.

2. Econometric Modelling
The conceptual model used in the study is based on the Haq, Meilke, and Cranfield (2013) and Haq and Meilke (2009, 2010). This study extended their model by considering non-tariff measures in the analysis. The model assumes that consumer in each importing country \( I \) maximize a constant elasticity of substitution (CES) utility function from the consumption of imported cotton product \( k \) subject to his income constraint \( I \). The maximization problems assume that consumer has perfect information involved in the choice problem. Preferences are complete, reflexive and continuous. The consumer is assumed to
be price taker i.e. prices are fixed and exogenous. Hence, the search for better prices, bargaining, and discount are ignored. Further prices are linear, and every unit of the cotton and textile product cost the same price. Hence, quantity discounts are assumed away. The maximization theory also assumes that goods are divisible. Cotton products are assumed to be differentiated. Hence, a country I are assumed to have a consumption bundle of homogenous and differentiated products. The utility function for a representative consumer in the country $i$ is defined over homogenous ($X_h$) and differentiated ($X_f$) cotton products where $f = 1, F$ and $h = F + 1, H$. Preferences for differentiated products are assumed to be weakly separable such that

$$U_i = U(u_1, u_2, \ldots, u_F, u_{F+1}, \ldots, u_H)$$  \quad (1)$$

Where the general utility function $U$ consists of sub utility functions $u_h$ and $u_f$. The subs utility function $u_f$ is assumed to be additively separable such that expenditure $E_i$ on differentiated cotton products ($X_f$) in terms of the numeraire good $X_h$ for country $i$ is given as $E_i = X_{ih} + \sum_{f=1}^{F} P_{if} X_{if}$ and $P_{if}$ is the price of cotton products $f$. Non-satiation is assumed implying that total expenditure is equal to income. The subs utility function $u_f$ is assumed to have a (Dixit & Stiglitz, 1977) CES utility function to allow for substitution between differentiated products.

$$U_f = \left( \sum_{n=1}^{N} X_n^\rho \right)^{1/\rho}$$  \quad (2)$$

Where $U_f$ is defined over varieties $n \in N$ of differentiated products in country $i$, and $0 < \rho < 1$ to preserve concavity. Maximizing the utility function (2) subject to the income constraints yields the following demand function for each variety of cotton products.

$$X_{in}P_{in} = \frac{(P_{in})^{\rho}}{\sum_{n=1}^{N} (P_{in})^{\rho}} I_i$$  \quad (3)$$

Where $X_{in}$ represents the demand for variety $n$ in a sector of country $i$, $P_{in}$ represents the price of each imported variety and $I_i$ represents per capita income of the country. Hence, $X_{in}P_{in}$ represents the expenditure on imports of country $i$ on variety $n$ and is presented by $M_{in}$. The relationship between import price of a variety $P_{in}$ and export price of the same variety $P_{jn}$ is given as follows.

$$P_{in} = P_{jn} * \tau_{ijn}$$  \quad (4)$$

Where $\tau_{ijn}$ is the trade cost faced by exporting country $j$ in exporting product variety $n$ to country $i$. Substituting for $P_{in}$ and taking the natural logarithm on both sides of equation 4 gives the following function.

$$ln M_{in} = ln N + (1 - \sigma) ln P_j - (1 - \sigma) ln \sum_{n=1}^{N} P_i + (1 - \sigma) ln \tau_{ijn} + ln I_i$$  \quad (5)$$

Trade costs, $\tau_{ijn}$ are determined by distance between trading partners (D), trade partners sharing a common border (B), tariff (T) and non-tariff barriers (NTB), preferential trade agreements (PTA), preferential market access such generalized system of preferences (GSP). Jacks, Meissner, and Novy (2008), Haq et al. (2013) and Haq and Meilke (2010, 2009) have such a relationship in their analysis. However, this study contributes to the existing literature by explicitly considering non-tariff barriers in the analysis. We are unaware of a study that has considered both tariff and MRLs effects in the same study.

$$ln(\tau_{ijn}) = \theta_1 D_{ij} + \theta_2 B_{ij} + \theta_3 T_{ijn} + \theta_4 MRL_{ij} + \theta_5 PTA_{ij} + \theta_5 GSP_{ij} + v_{ij}$$  \quad (6)$$
Jacks, Meissner and Novy (2008) estimated equation 6 assuming a value for the substitution elasticity and then included the estimated cost in the bilateral trade equation. The parameterized form is given as follows:

\[ \ln M_{in} = \ln N + (1 - \sigma)\ln P_j - (1 - \sigma)\ln \sum_{l=1}^{N} P_l + (1 - \sigma)\gamma_1 \ln D_{ij} + (1 - \sigma)\theta_2 B_{ij} + (1 - \sigma)\theta_3 T_{ijn} + (1 - \sigma)\theta_4 MRL_{ij} + (1 - \sigma)\theta_5 PTA_{ij} + (1 - \sigma)\theta_6 GSP_{ij} + \theta_6 \ln I_i + \varepsilon_{ij} \]  

\[ \text{(8)} \]

In the above equation, \( \ln N \) and \( P_j \) are specific to the exporting country and will be captured using exporter fixed effects (\( \lambda_j \)), while \( \sum_{l=1}^{N} P_l \) is importing country specific and will be captured by importer fixed effects (\( \lambda_i \)). Haq et al. (2013) and Haq and Meilke (2010, 2009), Mátyás (1997) and Egger (2002) used these effects to control for unobserved heterogeneity. The \( \varepsilon_{ij} = (I-\sigma_j)\nu_{ij} \) is the error term and it is assumed to be uncorrelated with the repressors. Further simplification of equation 8 yields the following estimable equation.

\[ \ln M_{in} = \lambda_i + \lambda_j + \gamma_1 \ln D_{ij} + \gamma_2 B_{ij} + \gamma_3 T_{ijn} + \gamma_4 MRL_{ij} + \gamma_5 PTA_{ij} \\
+ \gamma_6 GSP_{ij} + \gamma_7 \ln I_i + \varepsilon_{ij} \]  

\[ \text{(9)} \]

The variable MRL can be measured in many ways.

3. Results and Discussions

This section presents the results of the model estimated for crude oil, refined cottonseed oil and the combination of the both crude and refined oil. Both Ordinary Least Squares (OLS) and Poisson estimation procedures were used. The analysis used three different MRLs indices namely Li and Beghin (LB), Actual Heterogeneous Index (AHI) and Heterogeneous Index (HI). The combination of three commodities, two estimation techniques and three measures of MRLs produces eighteen regression estimates for each coefficient.

The tables for cottonseed show that the total numbers of observations are 2,062. However, only 710 observations are left for the analysis when zero trade-flow is omitted. Hence, two-third of the observations is zero trade flows. Similarly, in the case of crude seed oil three-quarter of the observations are zero-trade flow while it is two-third for the refine oilseed. Hence, on average only one-third of the observations are used in the OLS regression analysis as with logarithm specification, zero observations become missing and therefore Poisson regression is used too.

In the case of R-squared, it ranges from 0.563 for refined seed oil to 0.666 for crude seed oil. In the case of regression analysis, R-squared is an important indicator for at least three reasons. First, it explains the variability of the dependent variable from its mean that is the proportion of the total variation as unexplained by the model. Second the denominator of the R-squared formula (that is \( R^2 = 1 - \frac{\sum_{i=1}^{n}(y_i - \hat{y}_i)^2}{\sum_{i=1}^{n}(y_i - \bar{y})^2} \)) represents sum of the squared errors of the null model. The null model shows the predicting of the endogenous variable without exogenous variables while the numerator shows the sum of squared errors of the fitted model. Hence, the ratio clearly shows improvement in the prediction power of the model due to exogenous variables. Third, R-squared can also be determined as the square of the correlation between the predicted and actual values of the model. Hence, High Square is not only indicative of the good explanatory power but also strong predictive power of a model. The F-statistics and Wald Chi-squared show that all the models are statistically significant that is the effect of all the exogenous variables excluding the intercept on the dependent variable is statistically significant. All the fixed effects controlling for the importing and exporting countries are statistically significant implying that ignoring these effects would lead to biased estimates. However, the year fixed effects are statistically significant 20 times out of 27.

The effect of distance on trade is assumed to be negative while common border, Preferential Trade agreement (PTA) and General System of Trade Preferences (GSP) is supposed to have a positive effect on trade. The estimated results show that the effect of distance on the trade of all the commodities is negative and statistically
significant. The marginal effect (that is elasticity’s) of distance on trade estimated using Poisson is consistently higher as compared to the elasticity’s estimated using OLS. Elasticity’s are higher for crude seed oil as compared to others. The effect of the common border on crude seed oil is consistently positive and statistically significant while it does not affect refined seed oil trade. Similarly, the effect of PTAs on the trade of all the three commodities is positive and statistically significant. In the case of PTA, out of the 36 estimated parameters (tables 2 to 10) only seven have a statistically insignificant effect on trade. However, the effect of PTA estimated using Poisson is much smaller than those estimated using OLS. The effect of GSP on trade is predominantly statistically insignificant. However, its effect is positive whenever it is statistically significant.

A tariff is an important determinant of crude seed oil trade only. Its effect is negative and statistically significant. Its elasticity estimated using Poisson is highly elastic as compared to the elasticities estimated using OLS. This is the first evidence of its kind of the effect of the tariff on crude oil trade. Poisson estimates show that, on average, a 10 percent increase in tariff reduces crude oil trade by about 25 percent, keeping other variables constant while the same effect estimated using OLS is about 14 percent. When commodities are aggregated to four-digit that is cottonseed oil, the effect tariff on trade fades away as none of the parameters of simple average tariff is statistically significant.

Seed account for two-thirds of the cottonseed that both cotton bolls, seed, and lint. There could be physical barriers to the utilization of seed because of a chemical tetraploidy, largely available in the crude oil. The other is that cottonseed could deteriorate due to non-availability of storage to keep the seed cool and dry and stop degradation (Gregory et al., 1999). While there are MRL standards for crude oil but countries and especially the EU do not specify these standards for processed products like crude oils. In such a situation when MRL is not defined for a processed food product, then the upper limit of MRLs is set equal to the MRL of raw product in this case cottonseed. The concentration of the product during the refining process is also considered in the MRL determination. Hence, the allowable bandwidths of MRLs in cottonseed vary according to the chemical nature of the pesticides and the oil contents. If a pesticide is highly soluble in fat or difficult to be eliminated during the primary extraction process, then MRL is determined by multiplying the seed MRL with concentration factor. Pesticides might also be soluble in water or fat or both. The bottom line is that untraceable traces of chemicals might exist in cottonseeds, and concentration during initial processing would lead to its detection in the crude oil. Hence, MRL standards are typically set higher in cottonseed, followed by crude and refined oil to protect human health.

Results compiled in table 11 show that the effect of MRLs on cottonseed is more prominent. However, it also gets all the pesticide sprayed on cotton plant and has the highest potential to absorb these. MRLs measured using Heterogeneous Index (HI) and Actual Heterogeneous Index (AHI) has a significant effect on crude cottonseed oil trade. The heterogeneity index of trade (HIT) of NTMs by Rau et al. (2010) is binary and measures the dissimilarity of NTMs of importing and exporting countries. However, countries could be dissimilar or otherwise in the stringency of the regulatory environment. In such a case, the effect of HI could be more intense. These effects are primarily inelastic except the marginal effect estimated using OLS for AHI which is highly elastic (~6.989). The AHI also shows a statistically significant effect of MRLs on cottonseed trade, though its effect is smaller than those estimated with HI. The effect of MRLs on crude oil trade is statistically insignificant for all the indices and estimation procedure. In the case of refined cottonseed oil trade, the effect of MRLs on trade is statistically significant for one-third of the cases. In the refined oil case, both the Li and Beghin and HI indices show a statistically significant effect of MRLs on refined cottonseed oil. Finally, the overall effect of MRLs on cottonseed oil is statically significant as presented in tables 8 to 10. These tables consistently show a statistically significant and negative effect of MRLs on trade. Irrespective of the measure, MRLs have a statistically significant negative effect on cottonseed and refine cottonseed oil. Since none of the measures of MRLs is perfect, therefore, if even one index shows a statistically significant negative effect on trade, then one can argue about the stringency of NTMs. Poisson uses more observations as compared to log-linearized OLS regression and hence produces statistically significant estimates.

Fixed effects are added to the estimated models to control for any heterogeneity stemming from differences between trading partners due to the factors other than those controlled in the model. However, such analysis fails to explain as what happens to trade between the pair of countries having similar as compared to different development levels. Developed (Northern) countries are considered rich and export manufactured goods and services while developing (Southern) countries are considered poor and export primary commodities in the form of food, minerals,
and raw materials. The production process is generally shifted from north to south for reducing the cost of production for their products in the international markets. Standards such as MRLs emerged in the North. Irrespective of the initial effects of standards, these increased trade among northern countries once their harmonization took place (Chen and Mattoo, 2008). However, MRL standards are more stringent in North and are considered as a stumbling block to North-South integration as south does not have the technology to attain and maintain these standards (Otsuki et al., 2001). But on the positive side, the adoption of Northern standards, the southern partner countries can get an indirect benefit by improving goods quality, production techniques and product management (Begins and Maertens 2015). However, such improvements do not come without a cost and higher cost also changes market price and thus has the potential to change the direction of trade.

The cost of standards also differs by export destination. The idiosyncratic nature of standard in the north and the adaptation of these standards by the southern partners may cost higher than other markets. If a southern trade partner adopts a standard for accessing the European Union market, but it does not guarantee access to the United States market, the cost for the southern exporting country increases. This effect of the standards may be reduced by adopting the international standard of the codex. Wilson and Otsuki (2004) suggest that countries should adopt international standards as these are cost-efficient and provide access to a wider range of export destinations. Otsuki et al., (2001) empirically show that international standards are less trade impeding than the domestic ones.

4. Conclusions and Recommendations
This study was primarily conducted to estimate the effect of both tariff and non-tariff barriers on global cotton and its selected products trade. All the estimated models were statistically significant and the estimated parameters of gravity type variables such as distance, common border, PTAs, etc. are according to prior expectations. The elasticity estimated by using the Poisson technique is highly elastic as compared to the elasticities yielded by OLS. Cottonseed crude oil is the important commodity affected by tariffs especially trade among north-north and north-south countries. The effect of tariffs on cottonseed refines oil trade is statistically insignificant. MRLs have both positive and negative effect on trade. The effect of MRLs measured through Li and Beghin index and Poisson technique produced positive and statistically significant results, while it has negative effects on trade when measured through AHI and OLS method. In the first case, the same effect estimated using OLS is statistically insignificant while in the second case the effect estimated using Poisson is statistically insignificant. Hence, the estimated results are inconsistent across the estimation procedure even for the same measure of MRL. This implies that the analysis does not provide conclusive evidence. The effect of MRLs on crude oil trade is statistically insignificant for all the indices and estimation procedures, while it is statistically significant for one-third of the cases of refined cottonseed oil trade. Both the Li and Beghin and HI indices show statistically significant effects of MRLs on refined cottonseed oil. The overall effect of MRLs, when both crude and refined oil trade observations are aggregated to four-digit level, is statically significant. Irrespective of the measure, MRLs have a statistically significant negative effect on refine cottonseed oil. Since none of the measures of MRLs is perfect, therefore, if even one index shows a statistically significant negative effect on trade, then one can argue about the stringency of NTMs. In the case of cottonseed, crude oil MRL standards are trade enhancing among North-South regional trade but in the case of refined oil, the same effect becomes statistically insignificant. Trade restricting effects are observed when the South region is involved in the trade.

There is a great need for uniformity and harmonization of MRL standards. The standard of the effect of MRLs on human health must be established uniformly for all countries. This will reduce ambiguity and conformity. The existing harmonization of standards has been making standards more stringent contrary to the objective of harmonization. This stringency is evident in the North-South trade in this study. One of the ways to decrease ambiguity in standards is to make it mandatory for all countries to adopt the international standards of the Codex Alimentarius committee rather developing their own. The analysis presented in this study ignored how trade is effected when a country switches from one regime of MRL standard to another. The study recommends that such a study be conducted in order to highlight the effect of regime change in trade standards and to show whether the incremental effect of increasing or decreasing the stringency of trade standards has been increased.
REFERENCES


Appendices
Table 1: OLS and Poisson estimates of the effect of tariff and MRLs measured using Partner Li and Beghin Index of Trade for Crude Cotton Seed Oil

<table>
<thead>
<tr>
<th>Variables</th>
<th>Poisson Estimates</th>
<th>Marginal Effects</th>
<th>OLS Estimates (Logarithm)</th>
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<tr>
<td>Distance</td>
<td>-0.000***</td>
<td>-3.542***</td>
<td>-0.515</td>
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### Table 2: OLS and Poisson estimates of the effect of tariff and MRLs measured using Partner Li and Beghin Index of Trade for Refine Cotton Seed oil

<table>
<thead>
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<th>OLS Estimates</th>
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<td>-1.211***</td>
<td>-1.050***</td>
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<tr>
<td>Common Border</td>
<td>(0.000)</td>
<td>(0.323)</td>
<td>(0.149)</td>
</tr>
<tr>
<td>Partner Simple Average Tariff</td>
<td>2.763***</td>
<td>0.231***</td>
<td>0.253</td>
</tr>
<tr>
<td>Li and Beghin Index as a Measure of MRLs</td>
<td>-0.977*</td>
<td>-0.723*</td>
<td>-0.376</td>
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<td>Preferential Trade Agreements</td>
<td>2.528***</td>
<td>0.626***</td>
<td>-0.316</td>
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<tr>
<td>Generalized System Preferences</td>
<td>0.066</td>
<td>(0.007)</td>
<td>0.025</td>
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<tr>
<td>Real Per Capita Income of Reporting country</td>
<td>-974.501</td>
<td>-0.659</td>
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<td>Constant</td>
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### Fixed Effects

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<td>Reporting Country</td>
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### Summary Statistics

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<th>Pseudo R-squared</th>
<th>F-statistics</th>
<th>R-squared</th>
<th>RMSE</th>
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<td>3546</td>
<td>7028.310***</td>
<td>0.556</td>
<td></td>
<td>0.561</td>
<td>2.166</td>
</tr>
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</table>

Robust standard errors are given in parentheses. ***, ** and * show significance at 99, 95 and 90 level of significance.
Wald chi-square 15197.670*** ---- ----
Pseudo R-squared 0.514 ---- ----
F-statistics ---- ---- ----
R-squared ---- ---- 0.563
RMSE ---- ---- 2.444

Robust standard errors are given in parentheses. ***, ** and * show significance at 99, 95 and 90 level of significance.

Table 3: OLS and Poisson estimates of the effect of tariff and MRLs measured using Partner Li and Beghin Index of Trade for Cotton Seed Oil

<table>
<thead>
<tr>
<th>Variables</th>
<th>Poisson Estimates</th>
<th>Marginal Effects</th>
<th>OLS Estimates (Log)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>-0.000***</td>
<td>-1.814***</td>
<td>-1.358***</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.156)</td>
<td>(0.075)</td>
</tr>
<tr>
<td>Common Border</td>
<td>1.693***</td>
<td>0.937***</td>
<td>1.848***</td>
</tr>
<tr>
<td></td>
<td>(0.109)</td>
<td>(0.006)</td>
<td>(0.165)</td>
</tr>
<tr>
<td>Partner Simple Average Tariff</td>
<td>-0.010</td>
<td>-0.086</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.146)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Li and Beghin Index as a Measure of MRLs</td>
<td>0.316*</td>
<td>0.245*</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>(0.181)</td>
<td>(0.141)</td>
<td>(0.159)</td>
</tr>
<tr>
<td>Preferential Trade Agreements</td>
<td>1.585***</td>
<td>0.319***</td>
<td>0.319***</td>
</tr>
<tr>
<td></td>
<td>(0.177)</td>
<td>(0.036)</td>
<td>(0.144)</td>
</tr>
<tr>
<td>Generalized System Preferences</td>
<td>-0.473</td>
<td>-0.069</td>
<td>0.644</td>
</tr>
<tr>
<td></td>
<td>(0.330)</td>
<td>(0.048)</td>
<td>(0.262)</td>
</tr>
<tr>
<td>Real Per Capita Income of Reporting country</td>
<td>291.051</td>
<td>0.057</td>
<td>0.312</td>
</tr>
<tr>
<td></td>
<td>(202.637)</td>
<td>(0.039)</td>
<td>(0.922)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.728***</td>
<td>-4.455*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.312)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fixed Effects
Partner Country 4011.230**** ---- 131.220***
Reporting Country 4065.210*** ---- 36.000***
Years 33.530*** ---- 3.140**

Summary Statistics
Number of Observations 9,729 ---- 5.296
Wald chi-square 11315.790*** ---- ----
Pseudo R-squared 0.568 ---- ----
F-statistics ---- ---- ----
R-squared ---- ---- 0.581
RMSE ---- ---- 2.553

Robust standard errors are given in parentheses. ***, ** and * show significance at 99, 95 and 90 level of significance.

Table 4: The effect of Tariff and non-tariff barriers on cotton and its selected products estimated using OLS and Poisson estimates for North-North, North-South, and South-South trade

<table>
<thead>
<tr>
<th>Variables</th>
<th>Trade Direction</th>
<th>Poisson Estimates</th>
<th>Marginal Effects</th>
<th>OLS Estimates (Log)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton seed crude oil (151221)</td>
<td>NN</td>
<td>-0.259***</td>
<td>-2.324***</td>
<td>-0.113***</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
<td>(0.471)</td>
<td>(0.038)</td>
<td></td>
</tr>
<tr>
<td>Partner Simple Average Tariff</td>
<td>NS</td>
<td>-2.245***</td>
<td>-16.605***</td>
<td>-0.234</td>
</tr>
<tr>
<td></td>
<td>(0.498)</td>
<td>(3.689)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Li and Beghin Index</td>
<td>SS</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NN</td>
<td>-0.555</td>
<td>-0.421</td>
<td>0.786</td>
<td></td>
</tr>
<tr>
<td>(0.779)</td>
<td>(0.590)</td>
<td>(0.561)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS</td>
<td>8.791***</td>
<td>4.351***</td>
<td>-6.757</td>
<td></td>
</tr>
<tr>
<td>(1.494)</td>
<td>(0.739)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>Trade Direction</td>
<td>Poisson Estimates</td>
<td>Marginal Effects</td>
<td>OLS Estimates (Log)</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Cotton seed refined oil (151229)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NN</td>
<td>-0.043</td>
<td>-0.375</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.287)</td>
<td>(0.024)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>0.165</td>
<td>1.231</td>
<td>-0.116***</td>
</tr>
<tr>
<td></td>
<td>(0.106)</td>
<td>(0.790)</td>
<td>(0.055)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>-3.615***</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>(0.212)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NN</td>
<td>-1.045**</td>
<td>-0.819</td>
<td>-0.492</td>
</tr>
<tr>
<td></td>
<td>(0.408)</td>
<td>(0.320)</td>
<td>(0.342)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>-0.913</td>
<td>-0.524</td>
<td>0.364</td>
</tr>
<tr>
<td></td>
<td>(1.228)</td>
<td>(.705)</td>
<td>(1.24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>2.64**</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>(1.569)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cotton seed oil (1512)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NN</td>
<td>-0.0156</td>
<td>-0.142</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.147)</td>
<td>(0.013)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>-0.092</td>
<td>-0.679**</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.344)</td>
<td>(0.026)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>0.046</td>
<td>0.254</td>
<td>-0.055</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.363)</td>
<td>(0.145)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NN</td>
<td>0.705***</td>
<td>0.583***</td>
<td>0.215</td>
</tr>
<tr>
<td></td>
<td>(0.227)</td>
<td>(0.187)</td>
<td>(0.201)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NS</td>
<td>0.864***</td>
<td>0.573***</td>
<td>-0.107</td>
</tr>
<tr>
<td></td>
<td>(0.227)</td>
<td>(0.151)</td>
<td>(0.284)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>0.376</td>
<td>0.162</td>
<td>1.531</td>
</tr>
<tr>
<td></td>
<td>(1.098)</td>
<td>(0.473)</td>
<td>(1.529)</td>
<td></td>
</tr>
</tbody>
</table>

Robust standard errors are given in parentheses. ***, ** and * show significance at 99, 95 and 90 level of significance.
A Proposed Language Policy for Education in Pakistan

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ARTICLE DETAILS

ABSTRACT
The 72-year nascent history of Pakistan reflects a vacillating picture of language planning, policies and practices (for education) at all levels, that can, in turn, potentially pave the way for viable future (in the current context) only if reformed pragmatically. The present position paper attempts to explore and examines the pestilent plight of dated language planning, policies and practices for education in Pakistan. For that matter, strategies outlined and practices espoused have contributed the least to bring about a transformational change in language for the education system of Pakistan in a futuristic milieu. Thereby, resultantly, creating a language hodgepodge in the Pakistani education system. The existing research recommends the Bilingual Method of Comparative Language Learning and Teaching, in which both of the languages (e.g., Urdu and English) are coped with, creatively, so that both develop equally. Translation and Translation Studies would become integral to such an integrated method and approach. For that to happen, Pakistan largely needs English, to be materialized, as an Instrumental International Language (EIIL), rather than Literature or Linguistics. Thus, the said prospective way out may dissipate the existing dilemma of language policy in the education system of Pakistan—that lacks a workable and practicable means of instruction—for disseminating education as enlightenment. The existing study (while examining the aforesaid issue) pursues The Pakistan Futuristic Foundation and Institute (PFI), Islamabad, as an educational role model and mentor. Since the need and importance of language in education is seminal to the holistic-integrative growth and development of overall education system at all levels, that is why the researchers have probed and examined the current language impasse in education while observing, studying and experiencing it, objectively. In this connection, the current study is qualitative, experiential, holistic-integrative, and characteristically futuristic.

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Bilingualism, Education System, English Language Teaching, Futuristic-Integrative-Holism, Multilingualism

JEL Classification:
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1. Introduction
Today, the English Language has its own acquired, rather than originally inherent, important as a popular International Language. Its importance lies both in its diversity as well as its versatility. Its diversity or variety is global, as engineered by past British imperialism-cum-colonialism, and current ‘globalism-
globalization’ in the post-colonial period (Crystal, 1990; Howard, 1990; Potter, 1990; McArthur, 1998; AcArthus, 2003). Thus, English is an ever-escalating linguistic means of interactive international communication, verbal and written, formal and informal. It is a language of Education, Science and Technology, of Research and Development; of Diplomacy and International Relation; and of the Political economy in terms of trade and commerce, international and regional. If not local-national.

Or all of these reasons—and many more—like creative, research and journalistic writing, and media-use—English is being wooed and pursued (in ‘hot pursuit’?), used, misused and abused currently, as perhaps never before in its long, interesting and continuing history from Old English, through Middle English to Modern English, and beyond, post-Modern, and even “Futuristic” English, because any language which seeks longevity in the future, needs must be Futuristic, developmentally—in adaptative language change, according to life change and social change (Copley, 1961; Barfield, 1965; Barber, 1982; Dixon, 1997). And so the contemporary phenomena termed “Englishes” (in the plural) by world-level linguists like David Crystal and Tom McArther—because of its many myriads of manifestations worldwide.

The above is a realistic portrayal of the current baseline situation. It is also a pragmatic plea for English—but with plentiful pragmatic caveats, as recorded below in this paper.

2. The Present Pak. Position: A Critique

The present picture in Pakistan is a pitiable misuse and abuse of English, rather than of its sensible proper use. The civil society and media present a hodge-podge of linguistic pollution, which is neither English nor Urdu, nor yet any other Pak. Language. In fact, we are continuously violating all the three Universal Codes of one’s visible Identity: the Dress Code, Language Code, and Behaviour Code. We have retained English in Pakistan, officially and academically, but sadly, the quality of English teaching and learning has deteriorated decade by decade with every generation, if not every year. That applies also to Education, generally. The numerical proliferation, partly, if not wholly, because of the population explosion, is obvious. So is the menacingly mushrooming so-said “English” (Medium) School System for the microscopic minority alienated elite—alienated socio-culturally, linguistically, educationally and even religiously. The Self-Financing Privatization of Education has caused corrosive commercialization. Education has also become “bazari” or “street-smart”, in that even universities are housed in hired commercial buildings and markets. One misses miserably the campus culture and academic milieu of educational institutions of the pre-and post-independence periods.

Thus, the pernicious political economy and socio-politics of Elitist Education—a malevolent minority—is manipulating and marginalizing Mainstream Education, by impoverishing it qualitatively and quantitatively as financial outlay on state-sponsored and funded education for Pakistan’s majority—the poor people and middle-class masses. National resources are being frittered away on cultural alienates, many, if not most, of whom will go and settle abroad, to serve greener pastures. If some return, they will do so only on their own terms as agents and instruments of International Imperialism, through Indigenous Imperialism. If it sounds cynical or pessimistic, one has only to review and analyze conscientiously, Pakistan’s pestilent history ever after the death of its Founding Father, the Quaid-e-Azam Muhammad Ali Jinnah, on 11th September 1948.

All of the above tensions, trends and issues need to be resolved in favour of the abiding national needs and interests if Pakistan is to move ahead. It can do so the best, Educationally, because Education is the key to the Future of any nation, and indeed, humanity, itself: a future in the sovereign peace of fraternal freedom which is, minimally, sustainable, if not ideally perennial. Language is, in turn, the key to Education, because Education as an act of interactive and interpersonal communication, is in Language, essentiating Language Use and Usage (Crystal, 1984).

Another issue of critical concern is that in Pakistan, the core concerned policies and practices—concerned
with societal Education and filial Upbringing—or the lack of them—run at cross-purposes. These are:

- Education and Language Policies and Practices.
- Education and Media Policies and Practices.

The reason for this confusion and misdirection is that we have really lost sight of our creative visionary Ideology—Islam—and pay it only hypocritical lip service on ceremonial occasions. One’s Ideology inspires and serves doubly, integratedly and holistically, the national interests and human interests, through Moral Values Education and Integrated Family Studies (Azam, 2005). The focus is on Basic Life Skills, which enable one to seek Moral-Spiritual-Secular Self-Realization, and lead a successful, useful and fulfilling life. For this to be possible, it is essential that the four life-long intergender and intergenerational sociological processes of family nurture and societal education, acculturization and socialization, are well-integrated (Azam, I., 2006, 2007; Azam, Z., 2006).

Creativity is central to such a reformed plan and programme of true Education as Enlightenment ("Irfan"), which serves the triple Perennial Primary Purposes of Education as such:

(i) Moral-Spiritual.
(ii) Secular-Economic.
(iii) Integrative-Holistic.

Creative-Critical-Synthesizing Thinking Skills create Creative Societies, which shun war and terrorism and help to create and sustain Peace. Moral Values Education is what motivates them to such noble ideals and action (Azam, I., 2004, 2007; Azam, Z., 2005).

The foregoing general psycho-Social and moral-spiritual-secular principles must inspire Pakistan’s National Policy, Planning and Practice—including Education and Language—if it is to sustain its sovereignty in the 21st century, and develop on its own and into its own, in full-flowered Self-Realization.

3. Language and Education: L1, L2, etc.

Language is an essential means of Education, oral and documentary. The post-colonial period contracted in confusion with the clarity of vision in the colonial period: the Vision of Sovereign Fraternal Freedom. Educationally and Linguistically the confusion was, and continues, over the relative role and importance of L1, L2, etc., i.e., one’s mother/father tongue or national language, (L1), or the Second Language, preferably indigenous (L2), and a third elective, rather than imposed, foreign language, English, for the Third Muslim World former or former British Colonies. The confusing, if not conniving, controversy in Pakistan has been: whether to retain English as a second, logically third language, or impose it as the first language. The history of the disintegration of Imperialism and collapse of Colonialism amply proves that nothing alien, be it language, culture, education, values, or a politico-economic or social system can be imposed on indigenous peoples, stay on and succeed for long—unless it is indigenized, internalized and assimilated willingly by them, and integrated into the mainstream of their own psyche. So is the case with English as Language and Literature. But the presently prevalent English School system is bending backwards to work an impossible miracle of cultural and Linguistic hybridization reminiscent of the Anglo-Indians of the British days in South Asia. The teacher of English—foreign or native—recommends the “Direct Method” of teaching English to Pakistani children, as the best method. But at what cultural cost and loss? The result is simply shocking, to say the least. The foreign teacher of English may be excusable, because of the person’s ignorance of Pakistani languages. But what excuse has the Pakistani teacher to ignore or neglect our own rich multilingual heritage and tradition? Above all, the “Direct Method” may work in English medium institutions, but it does not work in the mainstream Mixed Media and Seminary (Madrassa) System.
What is the way out? Simply, to turn to Educational Psychology, Expertise and Experience, for Guidance, as under (Winch, 1990; Beare & Slaughter, 1994; Doherty, 1994; Iqbal, 1996; Isani & Virk, 2005). The consensus even at the highest level of the UNESCO is that Creativity and Education as essentially integral to each other as one’s critical life support system, and are the best in one’s own language, especially basic or foundational, formative education. Therefore, the venturesome Classification of Languages, as epitomized below, suggestively, succinctly:

4. Classification of Languages

4.1 “Zaban-e Mun”: My Language: L1 – L2
We are fortunate in Pakistan to be multilingual. The classification of our own languages as ‘local, provincial, regional and national’, is erroneous. It smacks of imperialistic exclusion and divisiveness. All of our languages being Pakistani are equally national—and nationalistic. All merit, intrinsically, equal treatment—at all levels—state, governmental and private; socio-cultural, educational and linguistic. We must cater to all of our languages, in order to promote national integration, socio-culturally, linguistically and educationally. The federal and provincial governments should take the lead and set the example—by adopting the Pakistani languages for popular and official use.

4.2 “Zaban-e-Yaar”: My Friends’ Language
In the case of Pakistan, they are, essentially, the Islami languages like Araby, Farsi and Turki. We have a rich historical heritage in them, which needs to be revived. While Pakistan’s spiritual Kaaba is the (Muslim) Middle East, its cultural qibla is South-West-Central Asia. We need to return to these robust roots and messianic moorings and benefit from their Geosociological blessings (Azam, 2004). Our Urdu language reflects this legacy in the most lively and creative manner. Araby is essential for understanding the Holy Quran and following it faithfully to be a true Muslim. It needs to be introduced right from the beginning, both at home and school.

4.3 “Zaban-e-Ghair”: An Alien or Foreign Language
The global multiplicity of languages is a rich tribute and testimony to human thought and wisdom, culture and civilization. A Bilinguist is a more fluent, articulate and communicative person than a Unilinguist. A Multilinguist is even more interactive, socio-culturally than a Bilinguist. Such a person’s circle of friends is wide and varied. One can befriend an ‘alien’ or ‘foreigner’ by means of the person’s language. It is the fulsome facilitator of the friendship factor. Pakistanis being natural or born multilinguals are skilful at learning foreign languages. The National University of Modern Languages, Islamabad, (NUML), is a tribute to Pakistan’s flair for languages. Pakistan needs to encourage foreign language learning as a matter of persistently practised policy, to cover all of the main and major languages of the world, North and South, East and West—so that they all become “Zabaan-e-Yaar”, the Friends’ Language, in order to build bridges of friendship and peace with all peoples of the world, through their languages, literatures and cultures, by mutual understanding and appreciation, and reciprocal respect.

5. The English Language Today
While for its native speakers/users, the English Language is the first language for many, and the second language for some, for the preponderant global majority of its non-native users, it is simply an Instrument Language, and so its classification as: EIIL:

5.1 English: An Instrumental International Language
This is its net worth and basic reality which needs to be recognized and respected. Only then can it be put to the best use. English needs to be acquired not to become personally British, American, Canadian, Australian or NewZelandian, etc. —unless one really wants to move abroad—otherwise one becomes a misfit in one’s own country and culture. English should be required for its pragmatic, secular benefits: educational and economic. That essentiate teaching and learning English well. The English teacher’s role is virtually vital. Established English Teaching Departments and Institutions like the NUML, should be
able to serve the purpose of standard English Teaching. What Pakistan largely needs is English as an Instrumental International Language, rather than Literature or Linguistics. Of course, these options should be available at the tertiary level of Education, to those truly interested in them—along with Research and Creative Writing but for the majority at the school and college level, EIIL, should do, and be catered to effectively (Faure, et al., 1972; Jennings & Cornish, 1982; Delore, et al., 1996; Talati, et al (Eds), 1998; Rahman, 2004).

Thus, while conceding that the English Language may be our national need—an education need—indeed, it is well-nigh a global instrumental need—let us not turn it into an obsessive-compulsive psychological issue. Let it remain a worldly need—“dunyavi zaroort”—and not become a paralyzing “mujboori” (constraint or compulsion).

There should never be any compromise on quality, criteria and standards: culture as well as educational. The objective should be excellence for those who aim high, command or mastery for those who come next, and finally, fluency and flow for others—both students and teachers, especially the latter.

5.2 English Language Teaching: Bilingualism

Based on the researchers’ experience at tertiary level of education (M.A.; M.Phil.; and Ph.D.), and interaction at all levels, they recommend the Bilingual Method of Comparative Language and Literature Learning and Teaching, in which both of the languages (e.g., Urdu and English) are coped with, creatively, so that both develop equally. Translation and translation studies would become integral to such an approach. The core caveat is for the teacher to be competently and creatively Bilingual (if not Multilingual). For that to happen, Pakistan must tap its Multilingual potential and promise, creatively. The stress in Language Teaching should be on the Four Basic Language Skills: Listening, Speaking, Reading and Writing. A teacher is expected to be a triple Role Model, as: (a) a Moral Person; (b) a Competent Communicator; and (c) and Expert Subject Specialist. The dangerously disturbed balance between Science and Technology Education, and the Arts, Humanities and Languages/Literatures, needs to be restored in our System of Education at all levels (Rope, et al., 2001).

Policy, Planning and Practice

6. Conclusion and Recommendations


- Education as Enlightenment (“Irfan”) needs to be Perennialized as living tradition: Modernized and Futurized.
- There should be complete coordination between the Economic, Education, Language, Culture and Media Policies, to serve the abiding National Interest as subservient to the National Ideology.
- Basic Education (primary) needs to be in the mother/father tongue or a Pakistani language.
- Bilingualism may be introduced right from the start, in relation to other Pakistani Languages.
- The Mixed Media system is more pragmatic, depending on the subject being taught, and the availability of teaching texts and materials in a particular medium or language.
- The Mainstream state system of Education ought to be prioritized for the poor and middle classes.
- English may be introduced at an apt school level (class V, e.g.).
- It may be taught Bilingually.
- Multilingualism needs to be encouraged, vis-à-vis the Pakistani languages, and other Islami and international languages.
- English need to be adopted as an Instrumental International Language.
- It also needs to be adapted for indigenization as “Pakistani English”.
- Above all, the state and government policy, planning, programming and practice must be indigenized—Pakistanized.

In the final analysis, Self-Reliance is the seamless secret of Sovereign Survival: in thought, word
and deed. That is the meaning and message of Creativity and Originality.

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Utility of Computer Labs in Secondary Schools as Perceived by Students with Diverse Demographics

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L86, L89, J19

ABSTRACT

The accessibility of modern computer technologies in schools is increasing all over the globe. Generally, the presence of a well-equipped and functional computer lab facility in school provides the opportunity not only to modernize educational methods but also to augment students and teachers’ interest towards the efficient use of computer technology along with access to quality education. In line with prevailing global trends, federal and provincial governments in Pakistan especially Government of the Punjab also made concerted efforts to provide computer lab facility in secondary schools in past two decades. In this context, this article mainly focused on examining the usefulness of computer labs for enhancement of secondary school students learning experiences. Descriptive survey design was used to achieve the objectives of this study in which a self-developed questionnaire designed on Likert five-point format was administered to 320 sample students selected from 32 secondary schools using cluster and stratified random sampling techniques. Both the descriptive (i.e., percentage, mean, SD) and/or inferential statistics (i.e., independent-sample t-test) were used to analyze collected data. The results revealed that secondary school students believe, with a higher level of consensus, that computer labs are useful for enhancement of their learning. Some concerns, however, were also highlighted by students regarding the availability of required physical facilities in computer labs. It was recommended for school authorities to provide well-equipped and fully functional computer labs in schools to achieve maximum benefits for students.

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1. Introduction
Technology has been playing a pivotal role in 21st century education from primary to university level. Over the years, computer technology has become an integral part of education and its impact on teaching
and learning is widely accepted (Mitra et al., 2000). Computer technology is utilized as a key instrument for creating conducive learning environment in an institution (Gilakjani, Sabouri & Zabihniaemran, 2015) as well as help learners to succeed and become more independent. It is beneficial not only for students to develop their creativity (Machnaik, 2002) but also for teachers to meet their instructional goals (Bennett et al., 2000) and to play more effective role as facilitators of learning (Gilakjani et al., 2015; Naimova, 2008). Writing in the same vein, Bajcsy (2002) stated that computers help both the teachers and students to interact with each other and provide useful materials. Likewise, a number of scholars (e.g., Campbell, 2001; Teo, 2009) consider information technologies as an indicator of economic development and job opportunities for students.

Computers are on demand throughout the school day in the new model of integrating technology into the curriculum. The successful integration of computers in educational settings mainly depends on availability of well-equipped and functional computer lab facility in schools (Saadon, Rambely & Suradi, 2011). The computer lab serves as the center for teaching computer usage to whole classes as well as to instruct in-service teachers of other subjects, usually by a specialist computer teacher. Zhao and Frank (2003) support this notion and emphasize that computer technology should be an inevitable component of all the educational settings as both the students and teachers can use it for numerous academic purposes. Computer labs equipped with necessary software packages attract students to come to labs (Saadon & Liong, 2011); influence students’ motivation to learn and increase their interest in teaching-learning process (Gilakjani et al., 2015). Furthermore, computers help students to collect new information (Gilakjani et al., 2015); investigate topics and to be more productive (Naimova, 2008; Worthington & Zhao, 1999). Similarly, Saadon et al. (2011) concluded that “practical teaching and learning process in the labs helps students in internalizing scientific method and understanding mathematical science concept introduced” (p. 352).

Furthermore, modern computer technologies work as an effective instrument of change and innovation for all the stakeholders in educational settings. Computer technology boosts creative thinking among students (Wheeler, Waite & Bromfield, 2002) and they perform better while solving problems (Williams, 2003). Likewise, computer helps learners in improving as well as performing mental and creative activities more efficiently (Graff, 2003; Mikropoulos et al., 2003). Classroom teachers use computer labs for guiding students’ learning, connecting curriculum to the real world activities (Gilakjani et al., 2015) and creating technology-based research projects. Likewise, computer technology helps the teachers of mathematical sciences subjects to integrate the elements of software use in the course curriculum (Saadon et al., 2012). In addition to students and classroom teachers, technology specialists use the computer labs for teaching in-service teachers where they instruct teachers on various aspects of using computers in educational settings. Finally, the traditional computer lab also serves as the location for networked printers and scanners that are used by the whole school.

Writing in the same vein, Graff (2003) proclaims that modern computer labs are beneficial for developing positive attitudes among students toward using computers. Al-Harbi (2010) found that students using computers had more positive attitude toward e-learning. Furthermore, studies on gender differences in students’ attitudes toward use of computer prove that female secondary school students indicated less positive computer attitudes than boys (Al-Harbi, 2010; Sainz & Lopez-Saez, 2010; Volman et al., 2005) and female students also make less intense use of computers as compared to boys’ students (Nelson & Cooper, 1997; Sainz & Lopez-Saez, 2010). Similarly, Graff (2003) found that girls did not like to use computers and felt lack of confidence in using computers than boys (Dickhauser & Stiensmeier-Pelster, 2002). Palaigeorgiou et al., (2005) also found that girls were much worried about hardware usage and did not find computer usage valuable in their personal as well as social life.

Studies of demographic differences in students’ views about utility of computer technology tend to examine a number of diverse areas including boys’ and girls’ perceptions of computers, their interest in use of computers and students’ access to computers. Some studies also focus on analyzing the influence
of students’ experiences, educational level and school location on students’ attitude towards using computers (Shashaani & Khalili, 2001). A number of researchers have found that male students as compared to their female counter parts have greater access to computers, take more interest in learning computer usage (Badagliacco, 1990; Shashaani, 1994) and enjoy working with computers (Reinen & Plomp, 1997; Zhao, Lu, Huang & Wang, 2010). Another group of scholars, however, summarized that gender was not a statistically significant predictor of students’ attitude towards computers (Alothman, Robertson, & Michaelson, 2017; Kay, 2008). They found that male and female students were equally interested in using computers (Shashaani & Khalili, 2001) as well as participating in computer activities (Shashaani, 1993).

Several other scholars and researchers (Alothman et al., 2017; Dhamija, 2014; Sainz & Lopez-Saez, 2010) have studied the usefulness of computer technologies in relation to students’ place of origin and school location. Alothman et al., (2017), for example, concluded that the location was among the key factors which significantly predict students’ attitudes towards using computers. Likewise, Dhamija (2014) found that urban students in comparison with rural undergraduate students have more positive attitude towards the use of computer technology in education. These differences are more salient among rural area students enrolled in the domain of technology in secondary education (Sainz & Lopez-Saez, 2010).

Considering the global trends, it is evident that acquisition of computer skills is almost mandatory for students in this digital age to perform efficiently in their school subjects. The technologically advanced countries have made effective use of the implementation of computer technologies to modernize their educational landscape at secondary and even primary school level (Kosakowski, 1999). Generally, the presence of a well-equipped and functional computer lab facility in school provides the opportunity not only to modernize educational methods but also to augment both the students and teachers’ interest towards the efficient use of computer technology along with access to quality education (World Bank, 2002). Writing in the same vein, Kreisel, (2003) stated that both the students and teachers in academically advanced societies use animation, visual design and design software to clarify as well as present important educational concepts.

In line with the prevailing global trends in education, the use of computer technologies in Pakistan has substantially increased in the past three decades and has become an important component of educational policies. In the fiscal year 2005-2006, Federal government initiated a project to establish computer labs in secondary schools to promote computer education in Pakistan. Consequently, 515 computer labs were established in secondary schools of Punjab. Later on in the year 2008-2009, in continuation of this policy, Government of the Punjab established computer labs in the total 4286 government secondary and higher secondary schools in all the 36 districts of the Punjab province. In the year 2013-2014, 636 computer labs were further provided in newly upgraded secondary and higher secondary schools along with equipping 500 elementary schools with computer labs to expand the project. It was assumed that the project will bring revolutionary changes in traditional methods of teaching presently used at secondary school level. It was also assumed that computer labs may be useful in providing necessary skills to secondary school students to meet the future challenges of competitive knowledge based economy.

Considering the above mentioned background, there is sufficient evidence in literature about the usefulness of computer labs in enhancing students’ learning outcomes at all educational levels. It can, thus, be concluded that along with other school facilities, existence of a well-equipped and functional computer lab in secondary schools is also essential for enhancement of students’ learning outcomes. As mentioned earlier, the past several years have witnessed a rapid growth of computer technology and its use in all the educational settings in Pakistan. However, little effort has been made to investigate the utility of computer labs from the perspective of secondary school students. It is, therefore, substantial to be acquainted with students’ viewpoints about the utility of computer labs at secondary school level in Pakistan. Similarly, usefulness of computer labs has not much been studied from the perspective of students’ gender as well as location of secondary schools. The main purpose of this research paper,
therefore, is to analyze secondary school students’ perceptions about utility of computer labs. This article further explores the influence of secondary school students’ gender and school location on utility of computer labs.

Research Questions:
This paper mainly examined secondary school students’ views about utility of computer labs at Khanewal district. Following specific research questions were formulated for this study.

1. To what extent, secondary school students perceive computer labs as useful for their learning.
2. What differences exist in secondary school students’ perceptions based on their gender regarding the utility of computer labs?
3. What differences exist in students’ perceptions based on the location of secondary school (rural/urban) regarding the utility of computer labs?

2. Research Design and Methods
This study mainly focused on examining utility of computer labs in secondary schools of Khanewal district as perceived by students with diverse demographics. The researcher used descriptive survey design in this study. All the secondary school students, both male and female, presently enrolled in 9th grade and 10th grade in Government schools of district Khanewal, served as a population for this study. Total number of government secondary schools, both male and female, in Khanewal district was 183.

Out of 183 government secondary schools, 32 schools (i.e., 18% of the population) were selected using cluster sampling technique. Of these 32, sixteen schools were selected from each gender using stratified random sampling technique, eight from rural area schools and eight from urban area schools. At the next step, 10 students were randomly selected from each school from those students who were present on the specific days of data collection, 5 from 9th grade and 5 from 10th grade. This resulted into random selection of 320 secondary level students, who served as a sample for this study. Of these 320 sample students, 160 (i.e., 50%) were boys and 160 (i.e., 50%) were girls. Similarly, 160 (i.e., 50%) were from urban area schools and 160 (i.e., 50%) were from rural area schools. Table 1 presents the details about demographic information of sample students.

<table>
<thead>
<tr>
<th>Total Students</th>
<th>Frequency</th>
<th>Total</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9th Class</td>
<td>10th Class</td>
<td>9th Class</td>
</tr>
<tr>
<td>Boys</td>
<td>80</td>
<td>80</td>
<td>160</td>
</tr>
<tr>
<td>Girls</td>
<td>80</td>
<td>80</td>
<td>160</td>
</tr>
<tr>
<td>Grand Total</td>
<td>160</td>
<td>160</td>
<td>320</td>
</tr>
<tr>
<td>Urban Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Girls</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>80</td>
<td>160</td>
</tr>
<tr>
<td>Rural Schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Girls</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>80</td>
<td>160</td>
</tr>
</tbody>
</table>

A self-developed questionnaire, comprising two sections, was used in this study as a research tool for data collection. First section of the questionnaire sought for demographic information from the sample respondents. The second section comprising 26 closed-ended items was designed on Likert 5-point scale format. The items were constructed after thorough review of related literature. These items were representative of various dimensions essential for exploring students’ perceptions regarding utility of computer labs in secondary schools.
To check the face validity as well as content validity of the self-developed instrument, two retired Professors and one serving Associate Professor of Education were selected as experts. All the three experts provided encouraging comments and helped in finalizing the instrument. As a second check, the researchers administered the instruments to 30 secondary level students who were enrolled in schools of Multan city for pilot testing. The participating students were particularly requested to point out any problems regarding reading, understanding and completion of the questionnaire. Generally, students reported the instrument to be easy and understandable. The research instrument was finalized according to the experts’ opinions and students’ comments received during pilot testing. The Cronbach’s Alpha value of the questionnaire was 0.81 in final study which is considered highly reliable.

After seeking permission from the respective Chief Executive Officers [CEOs] as well as school heads and class teachers, the tool was administered personally in 32 secondary schools. The entire process of the questionnaire administration took approximately 15 to 20 minutes in each school. Finally, total 320 students completed the questionnaires in all the 32 sample schools.

3. Data Analysis and Results

In response to specific research questions, data were analyzed on two bases and results were presented in following sections. First, statement-wise analysis of students’ views about utility of computer labs was done by using descriptive statistics i.e., mean and standard deviations. For ease of analysis, responses on options ‘agree’ and ‘strongly agree’ were combined into one option i.e., ‘agree’. Likewise, ‘disagree’ and ‘strongly disagree’ were combined into one option i.e., ‘disagree’. Second, comparison of students’ perceptions gender-wise and area-wise was done by using independent sample t-test. Results were presented in Table 2, Table 3 and Table 4 followed by interpretation.

<table>
<thead>
<tr>
<th>Statement/theme</th>
<th>Agree % age</th>
<th>Disagree % age</th>
<th>Undecided % age</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>My computer lab is always functional</td>
<td>99.7</td>
<td>0.3</td>
<td>0.0</td>
<td>4.3</td>
<td>.45</td>
</tr>
<tr>
<td>Allotment of only one period for computer practice</td>
<td>100</td>
<td>0.0</td>
<td>0.0</td>
<td>4.5</td>
<td>.50</td>
</tr>
<tr>
<td>Comfortable in using computer in computer lab</td>
<td>66.9</td>
<td>33.1</td>
<td>0.0</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Availability of well-trained computer teacher</td>
<td>99.7</td>
<td>0.3</td>
<td>0.0</td>
<td>4.6</td>
<td>.49</td>
</tr>
<tr>
<td>I like to attend the computer lab</td>
<td>91.6</td>
<td>5.6</td>
<td>2.8</td>
<td>4.1</td>
<td>.72</td>
</tr>
<tr>
<td>I visit the computer lab regularly</td>
<td>88.4</td>
<td>11.3</td>
<td>0.3</td>
<td>4.1</td>
<td>.86</td>
</tr>
<tr>
<td>Regularity of computer teacher</td>
<td>87.5</td>
<td>12.2</td>
<td>0.3</td>
<td>4.2</td>
<td>.94</td>
</tr>
<tr>
<td>Computer teacher comes to the lab in time</td>
<td>99.7</td>
<td>0.0</td>
<td>0.3</td>
<td>4.5</td>
<td>.51</td>
</tr>
<tr>
<td>Availability of sufficient number of computers</td>
<td>12.5</td>
<td>87.5</td>
<td>0.0</td>
<td>1.6</td>
<td>.99</td>
</tr>
<tr>
<td>Easy access to computer at the time of need</td>
<td>37.5</td>
<td>62.5</td>
<td>0.0</td>
<td>2.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Importance of computers success in school subjects</td>
<td>94.1</td>
<td>0.0</td>
<td>5.9</td>
<td>4.2</td>
<td>.50</td>
</tr>
<tr>
<td>Computers improve the quality of work</td>
<td>90.0</td>
<td>3.4</td>
<td>6.6</td>
<td>4.0</td>
<td>.62</td>
</tr>
<tr>
<td>Computers encourage group work</td>
<td>93.1</td>
<td>2.8</td>
<td>4.1</td>
<td>4.1</td>
<td>.60</td>
</tr>
<tr>
<td>Participation in computer lab activities</td>
<td>99.4</td>
<td>0.3</td>
<td>0.3</td>
<td>4.4</td>
<td>.51</td>
</tr>
<tr>
<td>Positive effect of computer lab work</td>
<td>96.2</td>
<td>2.2</td>
<td>1.6</td>
<td>4.2</td>
<td>.59</td>
</tr>
</tbody>
</table>
Analysis of students' responses in Table 2 shows that majority of the respondents agreed with most of the statements (i.e., 17 statements), and reacted positively by agreeing with these seventeen statements. It can, thus, be concluded that there are positive acknowledgements by the students regarding functionality of computer lab, availability of trained teachers, interest in computer lab activities and utility of computer labs for enhancement of their learning and success in future life. Table 2 further depicts that most of the participants disagreed with 9 statements and very low percentage of respondents remained undecided on all the 26 statements. It can, thus, be inferred that almost all the students were participating in computer lab activities in their schools and they had a clear-cut view about the facilities available as well as activities performed in their computer lab.

Overall, the findings (Mean= 3.66, SD= 0.68) from the questionnaire portrayed that majority of the participants acknowledged that computer labs are useful at secondary school level. However, participating students expressed their concerns regarding the availability of sufficient number of computers, restrictions on using printer and availability of required seating arrangement in computer lab. The Table 2 also shows that values of standard deviation for majority of the statements were around 0.50, which shows higher level of consensus among the participants. On the whole, it is inferred that secondary school students believe, with a higher level of consensus, that computer labs are useful for enhancement of their learning.

The differences between secondary school students’ perceptions based on their gender regarding the utility of computer labs were examined by using an independent sample t-test, and results are shown in Table 3.

Table 3: Gender-wise comparison of students’ views of computer labs’ utility

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>160</td>
<td>97.63</td>
<td>6.47</td>
<td>4.90</td>
<td>.000</td>
</tr>
<tr>
<td>Female</td>
<td>160</td>
<td>94.36</td>
<td>5.43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 presents the mean scores for the responses of male and female secondary school students. The mean scores of male participants are reasonably higher than their female counterparts. The p-value of 0.000 (i.e., p<0.05) demonstrates that there is a statistically significant difference between views of
students based on their gender regarding the extent of the utility of computer labs at secondary school level. It can, therefore, be inferred that students’ gender has significant impact on their perceptions about the utility of computer labs. Students enrolled in boys’ secondary schools believe that computer labs are more useful for enhancement of their learning.

Furthermore, the differences between secondary school students’ perceptions based on the location of secondary school (rural/urban) regarding the utility of computer labs were examined by using an independent sample t-test, and Table 4 presents the results.

Table 4: Area-wise comparison of students’ views of computer labs’ utility

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>160</td>
<td>99.06</td>
<td>4.78</td>
<td>10.21</td>
<td>.000</td>
</tr>
<tr>
<td>Rural</td>
<td>160</td>
<td>92.92</td>
<td>5.91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 indicates that the mean score for the responses of urban area secondary school students is reasonably higher than their rural area counter parts. The p-value of 0.000 (i.e., p<0.05) demonstrates that there is a statistically significant difference between the views of urban and rural area secondary school students regarding the extent of the utility of computer labs. It can, therefore, be inferred that school location has significant impact on students’ perceptions about the utility of computer labs. Students enrolled in urban area secondary schools believe that computer labs are more useful for enhancement of their learning.

4. Discussion
This study contributes to the analysis of secondary school students’ perceptions about utility of computer labs within the context of Pakistan. The study of computer lab’s utility in attitudinal research is substantial because of the belief that awareness of the usefulness of computer technology in daily life will motivate students to learn about it. A number of previous studies (Shashaani & Khalili, 2001; Zhang & Espinoza, 1998) found that an individual’s attitude towards computers is directly related to his or her perception of the usefulness of computers. Individuals feel a need to learn computing skills when they recognize that computer technology is essential in their future careers (Zhang & Espinoza, 1998). In this study, secondary school students perceived computers as beneficial and valuable tools that could be helpful for them to improve their learning. This is an encouraging finding, particularly, in Pakistani context.

This article further explores the influence of secondary school students’ gender and school location on utility of computer labs. Findings of this study verify previous predictions about lower perceptions of female students towards the usefulness of computers than their male counterparts and confirm the results of several earlier studies (Dickhauser & Stiensmeier-Pelster, 2002; Nelson & Cooper, 1997; Shashaani & Khalili, 2001; Volman et al., 2005). Nonetheless, and in line with the conclusions of meta-analysis completed by Whitley (1997), it cannot be postulated that even though female embrace less positive attitudes towards usefulness of computers as compared to male counterparts, their attitudes towards computer use are negative. Major reasons for these divergent attitudes of boys and girls towards computer use might be the differences in their interests and motivations in considering the utility of computers, and the role computers play in their lives (Sainz & Lopez-Saez, 2010); as well as their ultimate use of computers (Volman et al., 2005). Deyoung and Spence (2004) recommend that gender differences in attitudes towards computer use can be reduced by making girls get in contact with computers from early years of schooling.

At the same time, our findings prove that students enrolled in urban area secondary schools hold more positive views about the utility of computer labs than students who are enrolled in rural area schools. These findings are aligned well with earlier scholars (Dhamija, 2014; Sainz & Lopez-Saez, 2010). Lack of physical facilities in rural area schools’ computer labs as well as discouraging attitude of administration regarding the use of computer labs can limit the rural students’ use of computer labs in a higher extent.
than urban area school students who have relatively more opportunities of using computer labs. Corresponding with the results of this study, it is suggested for future researchers to include different types of contextual variables to explore the adolescents’ perceptions towards utility of computer labs in order to gain in-depth understanding of the conditions and situations which influence their views.

5. Conclusions and Recommendations
It is evident from the findings of this study that the views of secondary school students about the utility of computer labs are positive but respondents also exhibited their concerns about deficient physical resources in computer labs particularly in relation to the number of computers and availability of required seating arrangement. To be specific, following most important conclusions were drawn to answer the three main research questions. First, students believe that computer labs are useful for enhancement of their learning and success in future life. Second, students enrolled in boys’ secondary schools believe that computer labs are more useful for enhancement of their learning. Third, school location has significant impact on students’ perceptions about the utility of computer labs. Students enrolled in urban area secondary schools believe that computer labs are more useful for enhancement of their learning. Based on the results of this study, it is recommended for school authorities to provide well-equipped and fully functional computer labs in schools to achieve maximum benefits for students.

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Foreign Portfolio Investments and Economic Freedom: Empirical investigation of the World Countries grouping based on the Level of Income

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ARTICLE DETAILS

ABSTRACT

This study investigates the effect of the economic freedom on the foreign portfolio investments in various countries of the World classified based on the level of income. The study used a sample of 184 countries for a period of 2001 to 2017, the full sample is further divided based on the level of income into a subsample of 74 high-income countries, 52 upper-middle-income countries, 32 lower-middle-income countries, and 26 lower-income countries. The study estimated panel data regression models and found that a fixed effect is prevailing in all models. The regression results show that economic freedom has a positive effect on foreign portfolio investments. Furthermore, the results of the subsample also shows that economic freedom has a significant positive effect on foreign equity and foreign debts portfolio investments in high income, upper middle income, and lower-middle-income countries, however, there exists an insignificant effect of the economic freedom on the foreign equity and debts portfolio investments in the lower income countries.

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1. Introduction

From the early 1980s till the international debts crisis, the syndicated loan of the commercial banks is sole private capital to among the different countries of the world. However, the current trends in the international markets show a gradual decline in the medium and long-term bank loans and increasing
trends in foreign direct investments and foreign portfolio investment inflows\textsuperscript{12} (Agarwal, 1997). The IMF survey reveals that the foreign portfolio investment increased from $22,210,124 Million in 2001 to $58,153,742 Million in 2016, which is almost a 310.75\% increase. This increase in foreign portfolio investment is mainly attributed to the growing globalization and liberalization of stocks and bonds markets across the world, which tremendously contributes towards the economic development of the countries (Singhaina & Saini, 2017). During the last two decades, almost all economies have initiated reforms with the aim to bring strategic competitiveness in the business environment in order to attract foreign capital investments to achieve their targeted goals of economic development. The extant literature shows that foreign portfolio inflows have a fundamental role in the developmental process of all countries. On one hand, the developed economies required foreign capital inflows for maintaining development, while on the other hand the developing economies needed the foreign portfolio investment for the high economic growth and to fulfill the financing needs of the domestic business sectors. So, foreign capital investments act as a fuel for the economic engine of a country and overall industrial growth. Furthermore, this flow of funds in terms of foreign capital can bridge the gap between demand for funds with supply of funds into and out of the economy.

The graph shows the foreign portfolio investments over time, whereas \textit{FDPI} stands for foreign debts portfolio investments, \textit{FEPI} stands for foreign equity portfolio investment and \textit{TFPI} stands for total foreign portfolio investment over time.

Similarly, Wu, Li, and Selover (2012) also investigated the impact of country environment on the foreign capital investment and found that a country with relatively more stable environment has a positive role in attracting foreign portfolio investment. Similar, studies conducted on the BRICS countries such as Garg and Dua (2014), Ghosh and Herwadkar (2009) and Srinvasan and Kalaivani, (2005) also suggested that flow foreign portfolio investments in to a country is mainly due to the stable economic policies, with potential for economic growth and more specifically scope of diversifications prevailing in these countries. Similarly, exporting countries are more attracted towards the portfolio investments in order to hedge their currency risk and other country-specific risks (Agarwal, 1997; Grubel, 1968; and Levy & Sarnat, 1970).

The prior literature also highlighted various reasons of such investments i.e. diversification of portfolio

\textsuperscript{12}International Monetary Fund defines portfolio investments includes long term bonds, equity and some money market instruments such as commercial papers and certificate of deposits.
investment, fulfilling gap between the savings and investment across the different countries and benefits of the inflows to the hosts country such as economic growth, social well-being, employment generation and local stock and bonds market development (Mody, Taylor, & Kim, 2001). Chakrabarti (2001) reported a positive relation of the stock market returns and foreign investment portfolio (Boyer & Zheng, 2009). Rai and Bhanumurthy (2004) suggested that a decrease in the stock market and exchange rate volatility attract more foreign portfolio investments (Lin, Lee & Chiu, 2009). Portes and Rey (2005) used gravity model and reported that market size, liquidity, efficiency in transactions and technology positively affect the equity inflows. Moreover, Byrne and Fless (2011) found interest rate as a determining factor of foreign capital inflows (Ghosh, Qureshi, Kim & Zalduendo, 2014).

This study investigates the impact of the EFI on the FPI of the world countries grouping based on the level of income. This study is beyond the scope of the region and applied a holistic approach of considering countries across the world based on the level of income. Furthermore, the prior studies have taken the total FPI as a dependent variable which includes equity and debts. We argued that equity investments are different from the debts instruments and therefore, these should be considered separately therefore, this study has used total FPI, equity and debts foreign investments. Moreover, this study also focused on those factors especially affecting to the overall business sector of a country such as business development, ease of doing business, level of financial development, tax on capital gains and income as causes of FPI along with the other commonly used measures of macroeconomic variables.

2. Review of Literature

Generally, the foreign capital inflow is divided into two main forms: the most common form is a foreign direct investment (FDI) and foreign portfolio investments (FPI). The foreign investors invest in FPI with the aim to participate in the overall management and have the power to take decisions deemed fit for the success of the business. Thus, in this form of investment the investors hold ownership and control of the firm. However, the foreign portfolio investments give the investors ownership in firms of the host country and in return the investors earn short-term profit only.

2.1 Theoretical Background of the Study

This study is based on the following theories related to the foreign portfolio investments and provides theoretical grounds to the understanding of the topic.

The portfolio balance framework explain that foreign investors evaluate various possibilities of earning abnormal profits by exploiting the available arbitrage opportunities in different countries (Grubel, 1968; and Harvey, 1991). This study is considering all those factors categorized into pull and push factors that attract the foreign investment inflows based on this theoretical framework. The international finance theory explains the main motivation of the FPI that underpin outcome of those investors, who wish to invest across the countries. The most fundamental benefit of foreign portfolio investments is diversification of risk, fulfilling gap between the savings and investment across the different countries (Dell’Ariccia et al., 2008; and Obstfeld, 2009).

Capital allocation theory stress on the allocation of investments in either developing countries markets or industrialized countries markets or both. Buckberg (1996) suggested two-step process of capital allocation i.e. In the first step the investor determine the amount of capital available for investment and in the second step identify the potential markets based on expected returns and risk.

2.2 Foreign Portfolio Investment Determinants

The theories that underpinning the determinants of the capital inflows are broadly classified into three categorize; “firms level determinants”, “industry level”, and “country level” determinates of foreign capital inflows (Calvo, Leiderman, & Reinhart, 1993, 1996; Chuhan, Claessens, & Mamingi, 1998; and Dell’Ariccia et al., 2008). This study mainly focuses on the country level factors that can affect foreign capital investments and also examined its variations with the income level of countries.
Many studies highlighted the global factors that affect the portfolio inflows such as economic growth, business opportunities, stability and liquidity of stock markets, interest rate and exchange rate stability created attraction for the foreign capital inflows in to the emerging countries (Byrne & Fiess, 2011; Kim, 2000; and Mody et al., 2001). Another group of researchers considered home country factors that can affect the inflow of foreign capital investments in both developing and developed countries (De Vita & Kyaw, 2007). In a similar manner, another stream of studies highlighted the benefits of diversification inherited in the foreign portfolio investments and that motivate the foreign investors to invest across the border (Grubel, 1968; Harvey, 1991; Obstfeld, 2009). Chakrabarti (2001) found a positive relation of the stock market returns and foreign investment portfolio (Boyer & Zheng, 2009). Similarly, Rai and Bhanumurthy (2004) concluded that countries with stable stock market returns and exchange rate attract more foreign portfolio investments (Lin, Lee & Chiu, 2009). French and Vishwakarma (2013) concluded that foreign equity inflows positively affect conditional volatility in the stock market and exchange rate for two to three weeks of the host country. Srinivasan and Kalaiyani (2015) reported that foreign portfolio investments have a negative effect in short run and positive effect in long run on the stock market of India. However, Arora (2016) found contrary results and suggested that foreign equity inflows have no relationship with the future returns while there is a significant relationship of the domestic equity investments with the future stock market returns.

The extant literature also highlighted the role of globalization and liberalization in developed and developing countries that extensively attracted the inflow of capital into the countries. The last two decades have evidenced a tremendous increase in the capital inflows into the developing regions like BRICS and ASEAN countries (Garg & Dua, 2014). Holtbrügge and Kreppel (2012) highlighted the importance of human capital, consumption, productivity, innovation and savings for the capital inflows in the BRICS and G7 countries (Morck, Yeung & Zhao (2008); Mostafa & Mahmood, 2015)). Agarwal (1997) reported a negative effect of inflation on the foreign portfolio investments and a positive effect of the exchange rate, economic freedom, and domestic capital in Asian countries. Portes and Rey (2005) used gravity model to find-out various factors that could influence the foreign capital inflows and found that market size, liquidity, efficiency in transactions and advancement in technology is positively associated with the equity inflows. Moreover, Byrne and Fless (2011) found the interest rate as a determining factor of foreign capital inflows (Ghosh, Qureshi, Kim & Zalduendo, 2014). Dua and Garg (2013) examines the effect of domestic stock market performance, risk diversification, interest rate risk, country risk, economic growth, exchange rate volatility on foreign capital investments and found that high economic growth, low exchange rate volatility and stability of stock market performance positively affected the capital inflows in India (Bhasin & Khandelwal, 2013; and Ahmad & Zlate, 2014).

3. Research Design and Methodology
This section includes discussion on the data collection and sampling techniques, research modeling and variables definitions.

3.1 Data Collection and Sampling Techniques
The study has used a total of 184 countries data ranging from 2001 to 2017 for which the EFIand foreign portfolio data available. The full sample countries were further divided based on the level of income into a subsample of 74 high-income countries 52 upper-middle-income countries 32 lower-middle-income countries and 26 lower income countries. The division of the whole sample into subsample is based on the World Bank classification of countries into four groups and subject to availability of data for the considered variables. The EFIdata is collected from the Heritage Foundation. The foreign portfolio of investments annual data were extracted from the database available on the International Monetary Fund.

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14 [www.heritage.org/index/](http://www.heritage.org/index/) The Heritage Foundation is an American conservative think tank based in Washington, DC.
Data of other variables such as ease of business development index, financial development index, business development index, trading volume, interest rate, exchange rate, literacy rate, gross domestic product growth rate and total trade to gross domestic product ratio data are taken from the World Bank Indicators (WDI).

3.2 Research Modelling

The research study has used models adopted from the study of the Singhania and Saini (2017) and Afaq and Khan (2016) to test the relationship of the EFI and foreign portfolio investments.

\[
TFPi_i, t = \alpha + \beta EFi, t + \beta MCAP_i, t + \beta BDII_i, t + \beta EDBI_i, t + \beta TrVol, t + \beta POPI, t + \beta GDPGI, t + \beta IRSSpread, t + \beta INF, t + \beta TaxRate, t + \beta LitRate, t + \beta TRAD, t + \beta Yearsi + \beta Country + \mu, t \quad Eq \ - \ 1
\]

\[
FEPI_i, t = \alpha + \beta EFi, t + \beta MCAP_i, t + \beta BDII_i, t + \beta EDBI_i, t + \beta TrVol, t + \beta POPI, t + \beta GDPGI, t + \beta IRSSpread, t + \beta INF, t + \beta TaxRate, t + \beta LitRate, t + \beta TRAD, t + \beta Yearsi + \beta Country + \mu, t \quad Eq \ - \ 2
\]

\[
FDPI_i, t = \alpha + \beta EFi, t + \beta MCAP_i, t + \beta BDII_i, t + \beta EDBI_i, t + \beta TrVol, t + \beta POPI, t + \beta GDPGI, t + \beta IRSSpread, t + \beta INF, t + \beta TaxRate, t + \beta LitRate, t + \beta TRAD, t + \beta Yearsi + \beta Country + \mu, t \quad Eq \ - \ 3
\]

Whereas \( TFPi \) stands for the total foreign investment, \( FEPI \) stands for the foreign equity portfolio investments and \( FDPI \) stands for the foreign debts portfolio investments in the country “i” at a time “t” represents the dependent variables. The value of country ranges from 1, 2, 3...N and “t” represents the number of years ranging from 2000 to 2017.

The independent variables include \( EF \), which stands for the EFI computed by the Heritage Foundation. MCAP stands for market capitalization, BDI stands for the business development index, EDBI stands for the ease in doing business index, TrVol stands for trading volume, POP stands for annual population growth, GDPG stands for the gross domestic products annual growth, IRspread is the interest rate spread between the lending and borrowing rates, INF stands for consumer price index and represents inflation, Tax Rate represents the tax on income and capital gains from investments, LitRate stands for literacy rate, Year stands for the year dummy and country stands for the country dummy. The data of the macroeconomic variables are collected from the World Bank indicators (WDI).

4. Research Results and Discussions

The results section discusses the results of descriptive statistics, correlation, and panel regression analysis.

4.1 Descriptive Statistics

Table 4.1 shows the results of descriptive statistic i.e. mean of the full sample, “high-income countries”, “upper medium-income countries”, “low medium income”, and “low-income countries”. The descriptive shows that on average the total foreign portfolio investment is highest in upper-middle-income countries and lowest in the lower middle-income countries. The total portfolio investment is divided into equity portfolio investment and debts portfolio investment. On average the equity and debts portfolio investments are highest in the upper-middle-income countries while lowest in the lower middle-income countries. However, the EFI posed a different trend. It is varying with the income level and is highest for the high-income level countries and lowest in case of low-income countries.

The results of the other variables also show interesting patterns such as on average the value of financial development index is highest for the lower middle-income countries while the lowest for the low-income countries.

\[www.imf.org\] Foreign portfolio investments data is collected from the coordinated Portfolio Investment Survey (CPIS).
countries. Similarly, GDP growth rate, inflation rate, tax rate and ease in doing business is highest in the low middle-income countries, while the lowest for the high-income countries. However, population growth rate and the literacy rate is highest in lower middle-income countries while lowest in the lower income countries.

4.2 Panel Unit Root Test
Table 4.2 represents the result of "Phillips-Perron" tests and “Augmented Dickey-Fuller” tests for Panel Unit Root. The null hypothesis of these tests is “All panels contain unit roots” while the alternate hypothesis is “At least one panel is stationary”. Table 4.2 shows that the calculated statistics value of all variables in both of these tests is more than the critical value at 5%. Therefore, for all of the variables and in both of the tests the null hypothesis is rejected and alternate hypothesis is accepted i.e. At least one panel is stationary. Thus, the data is stationary at level and panel data regression modeling may be used to test the proposition that the economic freedom has a significant effect on the foreign portfolio investments inflows in countries group by income level.

4.3 Pearson Correlation
The Person correlation coefficients show no issue of high correlation between any two exogenous variables and likely there is no multicollinearity in regression models. Furthermore, total FPI is positively associated with the EFI, GDP growth, Market capitalization, business development index, ease in doing business index, literacy rate, trading volume of total stocks in a year, the strength of legal rights index, and financial development index. However, there is negative association between the total FPI and population growth, inflation rate, borrowing-lending spread and the tax rate on income and capital gains. Similar results are found in case of total foreign equity portfolio investment and total foreign debts portfolio investments with other explanatory variables. The results suggest a positive association of EFI with total FPI, foreign equity portfolio investments and debts. Thus, an increase in economic freedom is likely improving the inflow of foreign investments in terms of equity and debts.

4.4 Total FPI and EFI Income Group Countries.
Table 4.4 shows regression results of total FPI and EFI of different countries categorize by their income level. The first column shows the names of different explanatory variables used in the study while column 2nd 3rd 4th 5th and 6th represent results of different regressions models of various group of countries based on income.

The lower part shows an additional statistic of the regression models such as R-square, Hausman test for fixed effect Vs random effect modeling. The R-square values vary from 19% to 42%, suggests that the economic freedom and other explanatory variables better explain the changes in the FPI. The results of the Hausman tests of different regression models suggested that fixed effect data modeling is more suitable as compared to random effect modeling. Therefore, year and country fixed effect exists in all regression models.

The results of the regression models show that there is a positive and significant effect of the EFI on the total FPI in high income, upper-middle-income, and lower middle-income countries. However, insignificant and a positive effect of the economic freedom on the FPI in found in case of low-income countries. These results suggest that improvement in the country economic freedom is likely to increase the confidence of the foreign investors on countries, which may increase the FPI. The insignificant effect of the economic freedom on the foreign portfolio in case of low-income countries may be due to the presence of a low-level economic freedom.

The results of the macroeconomic variables show consistent results to the existing literature such as GDP growth, literacy rate, the strength of legal regulatory index have a positive effect on the total FPI. Thus, countries with more GDP growth, high literacy rate and improvement in the strength of the legal regulatory system are likely to increase the inflow of FPI in the country. However, the increase in
inflation and income and capital gain tax has a negative and significant effect on the country inflow of FPI. Thus, countries with a high rate of inflation and high rate of tax on income and capital gains are less likely to be the choice of foreign investors.

Moreover, the institutional and financial soundness factors such as market capitalization, business development index, and ease in doing business; trading volume and financial development index have a positive effect on the foreign investment inflows (Mengistu and Adams, 2007; Cotton and Ramachandran, 2001; Botric and Škuflic, 2006; Zhang, 2001). Thus, countries with more market capitalization provide more market liquidity that attracts foreign investors and are likely to increase the foreign investment inflows. In a similar manner, high rate of trading volume of securities would improve the market liquidity and act as a catalyst for foreign investors to invest (Calvo et al., 1993, 1996; Taylor & Sarnio 1997). The extant literature shows that due to liquidity factors the foreign investors prefer to invest in foreign portfolio rather than as a FPI.

Moreover, ease in doing business would improve the foreign investments in different sectors that would increase the FPI. The financial development index shows the soundness of a country financial system, the higher is the rating on the financial index is likely an indication of the sound economic system which will improve the foreign investors’ confidence on the markets and will attract more foreign investment inflows.

The cross countries analysis based on the income group show interesting results such as interest rate spread is insignificant for all income countries except the low-income countries. The insignificance and negative results may be due to the fact that the spread is very small and is the same in almost all countries except in the low-income countries also reported in the descriptive statistics (Verma & Prakash, 2011). Similar differences are found in case of other variables such as population growth is an insignificant effect on the foreign portfolio investment in case of upper middle-income countries and partially significant in lower income countries. The inflation rate is also insignificant in upper middle-income countries and lower middle-income countries, while ease of doing business is insignificant in case of lower middle-income countries only.

Instead of the few anomalies in the cross countries results, most of the macroeconomic and financial soundness variables show a significant effect on the foreign portfolio investment inflows to a country. Moreover, the variable of interest that is EFI has a positive effect on the foreign portfolio investment in all groups of countries segregated by income group, except the low-income countries, where there is a weak economic freedom as supported in the descriptive statistics. Thus, these results support the proposition that the country economic freedom is an important determinant of the FPI to a country, irrespective of the fact that to which income group the country is belonging.

4.5 Robustness Check
The total foreign portfolio investment is broadly consisting of foreign equity portfolio investments and foreign debt portfolio investments. In order to verify that the foreign equity and debts portfolio investments have a relationship with the economic freedom index, this study has used both foreign equity and debts portfolio investment separately in different cross income group countries regression models.

4.5.1 FPI Equity and EFI in Income Group Countries.
Table 4.5 shows regression results of the foreign equity portfolio investments and EFI in cross income group countries. The results of the regression models of foreign equity investment and economic freedom show similar results to the baseline regression models. The results show that there is a positive and significant effect of the economic freedom on the foreign portfolio investment inflows to a country except in low-income countries. Moreover, GDP growth, market capitalization, business development index, ease in doing business index, literacy rate, trading volume, strength in the legal regulatory index, and financial development have a positive and significant effect on the foreign equity portfolio investment
inflows. However, there are some variations in cross countries results such as literacy rate is insignificant in case of upper middle-income countries, trading volume is insignificant in case of high-income countries, and strength in the legal regulatory index is insignificant in case of high income and low-income countries. Moreover, the financial development index is significant in the case of lower middle and low-income countries.

Moreover, population growth rate, inflation rate and tax on income and capital gains have a significant negative effect on the foreign portfolio investment. However, few anomalies exist in cross countries analysis such as the tax rate is insignificant in case of lower middle income and low-income countries. Furthermore, the interest rate is insignificant in all cases except the lower income countries.

Based on the above results, it is concluded that economic freedom has a significant and positive effect on the foreign equity portfolio investment. Moreover, the macroeconomic variables and financial soundness indicators remain important factors in attracting the foreign equity portfolio investment inflows in income group countries.

4.5.2 FPI (Debts) and EFI in cross Income Group Countries.

Table 4.6 shows the results of the regression models that test the effect of economic freedom on the foreign debts portfolio investments. The results show a positive and significant effect of the economic freedom on the foreign debts inflows in all income countries except low-income countries. Thus, these results also supported the baseline regression results and an increase in the economic freedom of a country would likely improve the foreign debts portfolio investment inflows in that country. The results of macroeconomic variables are also consistent with the baseline models such as GDP growth, business development index, ease in doing business, literacy rate, strength in the legal regulatory index, financial development index have a positive and significant effect on the foreign debts investment inflows.

However, population growth, inflation rate and tax on income and gains remain negative and significant in a relationship with the foreign debts portfolio investment inflows.

Contrary to the baseline models, the interest rate spread has positive effect on foreign debts portfolio investment inflows, while market capitalization has a negative and significant effect on the foreign debts portfolio of investment inflows in all income group countries. Based on the above results and discussions it is concluded that economic freedom has a significant effect in both foreign equity portfolio investment and debts portfolio investment inflows in a country and is consistent with baseline models. Moreover, the results of the sub-indices are also found to have similar in effect to the base line models.

5. Conclusion and Future Scope of the Study

This study examines the impact of economic freedom on the portfolio investments in countries classified based on the level of income of the World. The study used a sample of 184 countries for a period of 2001 to 2017 subject to the availability of data of EFI and foreign portfolio. The full sample countries are further divided based on the level of income into a subsample of 74 “high-income countries” 32 “upper-middle-income countries” 32 “upper-middle-income countries” and 26 “lower income countries”. The study estimated panel data regression models and found that a fixed effect is prevailing in the data. The regression results show that economic freedom has a positive effect on the foreign capital invested in terms of foreign portfolio. Furthermore, the results of the subsample also in line with the baseline regression results and showed that economic freedom has a significant and positive effect on the foreign equity and foreign debts portfolio investments in high-income, upper-middle-income and lower-middle-income countries, however, there exists an insignificant relationship of the economic freedom and foreign equity and debts portfolio investments in the lower income countries. Moreover, the results of the economic freedom sub-indexes of like trade freedom, business freedom, labor freedom, financing freedom, investment freedom, and monetary freedom also found to have a positive effect on the FPI in case of high-income, upper middle-income countries. However, labor freedom, business freedom, and investment freedom indexes are significant with the FPI in case of lower-middle-income and low-income countries. These results have a great deal of implications for the policy makers and regulators of countries where economic freedom is weak and need a dire concern of the authorities.
The results of the study can be further improved by taking into consideration more sample size for the long term effect, however, this study has based its conclusion on the available data. Furthermore, the results of the study are based on the data collected from various data basis, therefore, validity and reliability of the results totally depends upon the sources that have actually collected data. The results can be further improved by taking into consideration more variables that could also affect the foreign capital inflows such as country governance, internal and external conflicts and stock market liberalization.

References


and Finance, 23(1), 78–89.


Table 4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Full Sample</th>
<th>HIC</th>
<th>UMIC</th>
<th>LMIC</th>
<th>LIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFPI</td>
<td>227152.50</td>
<td>180505.70</td>
<td>700454.60</td>
<td>133995.40</td>
<td>157319.50</td>
</tr>
<tr>
<td>FEPI</td>
<td>109533.20</td>
<td>87361.74</td>
<td>325410.40</td>
<td>66444.13</td>
<td>81587.96</td>
</tr>
<tr>
<td>TDFPI</td>
<td>47281.84</td>
<td>37877.34</td>
<td>127251.80</td>
<td>30714.08</td>
<td>41946.71</td>
</tr>
<tr>
<td>EFI</td>
<td>52.53</td>
<td>56.48</td>
<td>54.18</td>
<td>46.05</td>
<td>43.02</td>
</tr>
<tr>
<td>FDI</td>
<td>2.23</td>
<td>2.30</td>
<td>2.39</td>
<td>3.68</td>
<td>0.49</td>
</tr>
<tr>
<td>GDPG</td>
<td>3.45</td>
<td>3.11</td>
<td>3.20</td>
<td>4.87</td>
<td>3.56</td>
</tr>
<tr>
<td>INF</td>
<td>16.14</td>
<td>11.13</td>
<td>4.16</td>
<td>19.40</td>
<td>40.18</td>
</tr>
<tr>
<td>BDI</td>
<td>36.11</td>
<td>36.34</td>
<td>43.02</td>
<td>42.69</td>
<td>24.26</td>
</tr>
<tr>
<td>EDBI</td>
<td>0.06</td>
<td>0.05</td>
<td>0.09</td>
<td>0.09</td>
<td>0.04</td>
</tr>
<tr>
<td>Irspread</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>MCAP</td>
<td>19.26</td>
<td>27.12</td>
<td>18.30</td>
<td>8.96</td>
<td>0.24</td>
</tr>
<tr>
<td>POP</td>
<td>1.55</td>
<td>1.31</td>
<td>1.21</td>
<td>1.66</td>
<td>2.58</td>
</tr>
<tr>
<td>Litrate</td>
<td>4.50</td>
<td>4.78</td>
<td>5.10</td>
<td>5.56</td>
<td>2.08</td>
</tr>
<tr>
<td>TaxRate</td>
<td>0.98</td>
<td>0.86</td>
<td>1.11</td>
<td>1.46</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Table 4.1 shows descriptive statistics of dependent variables such as TFPI which stands for the total foreign investment, FEPI stands for the foreign equity portfolio investments and FDPI stands for the foreign debts portfolio investments. The independent variables include EF, which stands for the economic freedom index computed by the Heritage Foundation. MCAP stands for market capitalization, BDI stands for the business development index, EDBI stands for the ease in doing business index, TrVol stands for trading volume, POP stands for annual population growth, GDPG stands for the gross domestic products annual growth, IRspread is the interest rate spread between the lending and borrowing rates, INF stands for consumer price index and represents inflation, Tax Rate represents the tax on income and capital gains from investments, LitRate stands for literacy rate, Year stands for the year dummy and country stands for the country dummy.
4.2: Phillips-Perron tests and Augmented Dickey-Fuller tests for Unit Root

<table>
<thead>
<tr>
<th>S.No</th>
<th>Variables</th>
<th>Phillips-Perron tests</th>
<th>Augmented Dickey-Fuller tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TFPI</td>
<td>8.161</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>FEPI</td>
<td>15.231</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>TDFPI</td>
<td>7.155</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>EFI</td>
<td>2.477</td>
<td>0.006</td>
</tr>
<tr>
<td>5</td>
<td>FDI</td>
<td>25.745</td>
<td>0.000</td>
</tr>
<tr>
<td>6</td>
<td>GDPG</td>
<td>14.356</td>
<td>0.000</td>
</tr>
<tr>
<td>7</td>
<td>INF</td>
<td>15.804</td>
<td>0.000</td>
</tr>
<tr>
<td>8</td>
<td>BDI</td>
<td>14.343</td>
<td>0.000</td>
</tr>
<tr>
<td>9</td>
<td>EDBI</td>
<td>18.573</td>
<td>0.000</td>
</tr>
<tr>
<td>10</td>
<td>IRspread</td>
<td>3.976</td>
<td>0.000</td>
</tr>
<tr>
<td>11</td>
<td>MCAP</td>
<td>20.960</td>
<td>0.000</td>
</tr>
<tr>
<td>12</td>
<td>POP</td>
<td>2.994</td>
<td>0.001</td>
</tr>
<tr>
<td>13</td>
<td>Litrate</td>
<td>3.453</td>
<td>0.000</td>
</tr>
<tr>
<td>14</td>
<td>TaxRate</td>
<td>4.567</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4.2 shows results of Panel Unit root tests, moreover, the variables definition is given under the Table 4.1

Table 4.3 Pearson Correlation

Table 4.4: Regression results of Total FPI and EFI
Table 4.4 shows the results of different regression models based on cross countries grouping based on income, Moreover, the variables definition is given under the Table 4.1. Standard Errors are in parenthesis. p<0.01, ** p<0.05, * p<0.1

<table>
<thead>
<tr>
<th></th>
<th>FEPI</th>
<th>FEPI</th>
<th>FEPI</th>
<th>FEPI</th>
<th>FEPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCAP</td>
<td>0.274*** (0.047)</td>
<td>0.105** (0.039)</td>
<td>0.135*** (0.052)</td>
<td>0.338** (0.083)</td>
<td>0.325** (0.130)</td>
</tr>
<tr>
<td>BDI</td>
<td>0.111*** (0.009)</td>
<td>0.221*** (0.017)</td>
<td>0.058*** (0.020)</td>
<td>0.197*** (0.032)</td>
<td>0.241*** (0.047)</td>
</tr>
<tr>
<td>EDBI</td>
<td>0.015*** (0.003)</td>
<td>0.007*** (0.002)</td>
<td>0.004*** (0.001)</td>
<td>0.003 (0.010)</td>
<td>0.015*** (0.005)</td>
</tr>
<tr>
<td>IRSpread</td>
<td>0.000 (0.001)</td>
<td>0.001 (0.001)</td>
<td>0.010 (0.010)</td>
<td>-0.043*** (0.011)</td>
<td></td>
</tr>
<tr>
<td>Lrate</td>
<td>0.128*** (0.041)</td>
<td>0.235*** (0.077)</td>
<td>0.025 (0.034)</td>
<td>0.247** (0.114)</td>
<td>0.242** (0.118)</td>
</tr>
<tr>
<td>TrVol</td>
<td>0.010*** (0.001)</td>
<td>0.003* (0.000)</td>
<td>0.021*** (0.000)</td>
<td>0.021*** (0.004)</td>
<td>0.031*** (0.004)</td>
</tr>
<tr>
<td>SLegRI</td>
<td>0.027** (0.013)</td>
<td>0.054** (0.022)</td>
<td>0.024** (0.010)</td>
<td>0.095** (0.037)</td>
<td>0.112*** (0.043)</td>
</tr>
<tr>
<td>Txrate</td>
<td>-0.075*** (0.012)</td>
<td>-0.115 (0.195)</td>
<td>-0.219* (0.120)</td>
<td>-0.342** (0.154)</td>
<td>-0.483*** (0.081)</td>
</tr>
<tr>
<td>FDIndex</td>
<td>2.066*** (0.113)</td>
<td>0.005 (0.316)</td>
<td>0.144*** (0.034)</td>
<td>0.144*** (0.034)</td>
<td>0.659 (2.599)</td>
</tr>
<tr>
<td>_cons</td>
<td>0.806*** (0.185)</td>
<td>2.478*** (0.353)</td>
<td>0.220 (0.147)</td>
<td>6.383*** (0.781)</td>
<td>5.246** (2.128)</td>
</tr>
<tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Country</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hausman Test</td>
<td>21.05</td>
<td>25.05</td>
<td>20.43</td>
<td>19.89</td>
<td>18.09</td>
</tr>
<tr>
<td>P-Value</td>
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<td>0.00</td>
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<tr>
<td>Obs.</td>
<td>9087</td>
<td>2744</td>
<td>2489</td>
<td>1609</td>
<td>1245</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.134</td>
<td>0.194</td>
<td>0.421</td>
<td>0.198</td>
<td>0.358</td>
</tr>
</tbody>
</table>

Table 4.5: Regression results of FPI (Equity) and EFI
Table 4.5 shows the results of different regression models based on cross countries grouping based on income, Moreover, the variables definition is given under the Table 4.1 Standard Errors are in parenthesis.

*** p<0.01, ** p<0.05, * p<0.1

Table 4.6: Regression results of Debts FPI and EFI

<table>
<thead>
<tr>
<th></th>
<th>(Full Sample)</th>
<th>(HIC)</th>
<th>(UMIC)</th>
<th>(LMIC)</th>
<th>(LIC)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>TDFPI</td>
<td>TDFPI</td>
<td>TDFPI</td>
<td>TDFPI</td>
<td>TDFPI</td>
</tr>
<tr>
<td>EF</td>
<td>0.126***</td>
<td>0.171***</td>
<td>0.081***</td>
<td>0.166*</td>
<td>0.036</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.052)</td>
<td>(0.022)</td>
<td>(0.091)</td>
<td>(0.162)</td>
</tr>
<tr>
<td>POP</td>
<td>-0.095***</td>
<td>-0.245***</td>
<td>-0.030</td>
<td>-0.775***</td>
<td>-0.460</td>
</tr>
<tr>
<td></td>
<td>(0.026)</td>
<td>(0.053)</td>
<td>(0.019)</td>
<td>(0.098)</td>
<td>(0.314)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.019***</td>
<td>0.022**</td>
<td>0.008**</td>
<td>0.077***</td>
<td>0.051*</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.011)</td>
<td>(0.004)</td>
<td>(0.015)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>INF</td>
<td>-0.075*</td>
<td>-0.286***</td>
<td>-0.005</td>
<td>-0.031</td>
<td>-0.375*</td>
</tr>
</tbody>
</table>
|             | (0.044)       | (0.097) | (0.039) | (0.151) | (0.199)
Table 4.6 shows the results of different regression models based on cross countries grouping base income. Moreover, the variables definition is given under the Table 4.1 Standard Errors are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Table 4.7: Regression results of Total FPI and EFI components Indices for all countries

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<thead>
<tr>
<th></th>
<th>(BF)</th>
<th>(LF)</th>
<th>(MF)</th>
<th>(TF)</th>
<th>(IF)</th>
<th>(FF)</th>
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<tr>
<td>TFPI</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Business Freedom</td>
<td>0.123***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Freedom</td>
<td>0.418***</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monetary Freedom</td>
<td></td>
<td></td>
<td></td>
<td>0.146***</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td>(0.021)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Freedom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.134***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.021)</td>
<td></td>
</tr>
<tr>
<td>Investment Freedom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.105***</td>
</tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>(0.021)</td>
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### Table of Regression Results

<table>
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<tr>
<th>Variable</th>
<th>Coefficient 1</th>
<th>Coefficient 2</th>
<th>Coefficient 3</th>
<th>Coefficient 4</th>
<th>Coefficient 5</th>
<th>Coefficient 6</th>
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<th>p-value 2</th>
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<tr>
<td>Financial Freedom</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>0.117***</td>
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<tr>
<td>POP</td>
<td>-0.107***</td>
<td>-0.104***</td>
<td>-0.113***</td>
<td>-0.109***</td>
<td>-0.101***</td>
<td>-0.102***</td>
<td>(0.017)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.006**</td>
<td>0.007***</td>
<td>0.006**</td>
<td>0.008***</td>
<td>0.005*</td>
<td>0.006**</td>
<td>(0.003)</td>
<td>(0.003)</td>
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<tr>
<td>INF</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>-0.000***</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>MCAP</td>
<td>0.002***</td>
<td>0.002***</td>
<td>0.002***</td>
<td>0.002***</td>
<td>0.002***</td>
<td>0.002***</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>BDI</td>
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<td>0.060***</td>
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<td>0.123***</td>
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<td>0.005***</td>
<td>0.005***</td>
<td>0.005***</td>
<td>0.005***</td>
<td>0.005***</td>
<td>(0.001)</td>
<td>(0.001)</td>
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<tr>
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<td>0.001</td>
<td>0.001</td>
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<td>0.001</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Lrate</td>
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<td>0.075**</td>
<td>0.077**</td>
<td>0.077**</td>
<td>0.077**</td>
<td>0.077**</td>
<td>(0.033)</td>
<td>(0.033)</td>
</tr>
<tr>
<td>TrVol</td>
<td>0.001*</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>SLegRI</td>
<td>0.031***</td>
<td>0.026***</td>
<td>0.031***</td>
<td>0.031***</td>
<td>0.031***</td>
<td>0.032***</td>
<td>(0.010)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>TaxRate</td>
<td>-0.089***</td>
<td>-0.096***</td>
<td>-0.092***</td>
<td>-0.090***</td>
<td>-0.085***</td>
<td>-0.088***</td>
<td>(0.025)</td>
<td>(0.025)</td>
</tr>
<tr>
<td>FDIndex</td>
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<td>1.695***</td>
<td>1.672***</td>
<td>1.675***</td>
<td>1.683***</td>
<td>1.679***</td>
<td>(0.101)</td>
<td>(0.101)</td>
</tr>
<tr>
<td>_cons</td>
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<td>1.235***</td>
<td>1.254***</td>
<td>1.234***</td>
<td>1.205***</td>
<td>1.208***</td>
<td>(0.106)</td>
<td>(0.105)</td>
</tr>
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<tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

**Notes:**
- **p-value 1** and **p-value 2** indicate the significance level of each coefficient.
- ******* denotes significance at the 1% level.
Table 4.7 show the results of different regression models for sub-indices. Moreover, the variables definition is given under the Table 4.1. Standard errors are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1
Beyond Utilitarianism: Nineteenth Century South Asian Economic Crises and Sleeman’s (1788-1856) Necessitarianism

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ABSTRACT

Emerging out of eighteenth-century enlightenment, utilitarianism led a view of earth and human centric economic view of society, resulting not only in the formation of theories of racial superiority and legitimacy of imperialism, but also in the development of modern theories of economy grounded in Adam Smith (1723-1790), Malthus (1766-1834) and Recordo (1772-1823). However there were a few people those tried to fix the challenges beyond utility into the concept of instinctual and evolutionary necessity or priority. Sleeman (1788-1856) was one fundamental exponent of the theory against tyrant colonial economic policies to plunder the colonial subjects and destroy the colonized political elites. He not only challenged the Recordian theory of Revenue but also tried to convince the colonial policy makers for the development of a policy of agriculture, industry and taxation and revenue based on and keeping in considerations the needs and necessities and priorities of the colonized subjects.

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1. Introduction

The eighteenth century Enlightenment and Rationality preached a sort of deistic thought system which was systematized by Historicism and Utilitarianism at the end of eighteenth century and beginning of nineteenth century. Emerging out of this contest, utilitarianism led an earth and human centric view of society, especially, governance and economy. The trend resulted in the formation of theories of racial superiority, legitimacy of imperialism and economic exploitation as a utility to make the world civilized. The utilitarian philosophy worked potentially in the development of modern theories of economy grounded in Adam Smith, Malthus and Recordo’s thought system. The Utilitarian theorists challenged the romance of India and focused on the utility of what the British were doing in South Asia. As the British had penetrated in India as a trade company, therefore, for them trade benefits were the major utility of the British pursuits and imperial struggle. What was the impact of the British Imperial economy on the local population was not the concern of the British policy makers. This utilitarian theory found a number of challenges, which were being synthesized by then contemporary Elphinston (1779-1859) School of thought trying to harmonize indigenous culture and economy with the western models and modalities of reformists, missionaries and utilitarians,
However, among this dominant school, a small fraction of Britishers working in India strongly resisted the argument and the policies. Constructing their arguments on antiquarianism, cultural romance and natural consequentialism, they focused on the theory of economic necessitarianism. Necessitarianism is a doctrine to believe that ‘all events, including acts of the will, are determined by antecedent causes’ and are determined. The concept interlinks the natural concept of consequences and causation to form necessitarianism. It is constructed on the claim that all truth is necessarily true. (Nous, 2012, p. 418–448) They argued that India had a natural necessitarian culture and economy and the British policy had resulted necessarily in the destruction of India society and economy. William Henery Sleeman was the major exponent of this argument in the fourth and fifth decades of the nineteenth century. They paper tries to highlight some of the major ideas of Sleeman in this context.

2. William Henry Sleeman (1788-1856).

Major General Sir William Henry Sleeman was an officer in the services of the popular trade company East India Company. He is well known for his sympathy with the indigenous Hindu culture. He has been considered as one of the most efficient officers of the company. He is known as “thuggee Sleeman”. (Tuker, 1961) Philip Woodruff in The Founders calls him “The Titans” of the British Empire. (Ibid, p. xi) He has been praised by the Hindu natives of India as well as by the imperial masters. Sleeman’s thoughts were dominated by a very passionate romance of necessarily knitted with each other good and bad of Indian culture and history. Born in an age, when romanticism was emerging out of enlightenment, Sleeman was brought up in a naturally determined environment, congenial to the development of the faculties, necessarily varying and contrasting in their nature. Sleeman’s selection for the services of the company was a great honour for the family involved in the illegal trade. At the time of his arrival British supremacy in India had been established, but the problems of maintenance of the law and order had become complex in the form of Pindaris, Bagree dacoits and Thugs. Sleeman was impressed by the Indian tradition and became plunge into close relations with the natives. He became well-versed in local languages such as Pushto, Persian, Arabic and Hindustani (Urdu) and also in some other secret languages of decedents. Sleeman spent all his service of forty-seven years as an officer to maintain law and order against Gorkhas and Marathas and other groups. (Ibid, p.1-33) For him, the major problem in British India administration was application of British utility model of economy. Therefore he emerged as a strong enemy of the utilitarian philosophy. He criticized the utilitarian concept of economy taking its eminent form in the ideas of Ricardo, Malthus, James Mill, Adam Smith, Say and T. R. McCulloch.16(Sleeman, 1837) Sleeman objected to the concentration and accumulation of wealth in the hands of the British East India Company and thus destruction of India Economy and Society. For him national stocks were the criteria to evaluate the economic condition of India. Her strongly rejected the idea that accumulated wealth could indicate the economic condition of the masses. (Gordon, 1967, p. 28-29) Therefore, he strongly criticised the attitude of analysing India’s economic conditions and problems on the model of British utility. In that sense he was the only figure resisting the utilitarian logic of political economy.17 (Gordon, 1974, p.59-74)

As a necessitarianist, Sleeman believed in the deterministic view of religion and nature He saw a sort of uniformity in the nature of Universal phenomena In that sense historical process was determined for him with natural consequences and results. His Rambles and Recollections highlight his concept ‘the proper study of mankind is man’ but for him human will and action were determined be a necessary chain of causation.

3. Sleeman’s Bais Unit of Understanding

Sleeman’s major concern was confined to the maintenance of law and order, yet, in his Rambles and Recollections of an Indian Official he analyses the Indian society in its state of civilization However, his basic focus remains on the degenerating elements in then-current state of Indian society. He worked hard to eliminate the evil elements from the society. However, he finds the evil necessarily emanating from the religious, moral, social and economic structure of the Indian society through the historical practices. These evils were a constant source of problems for

16 W. H. Sleeman wrote two books on the issues related to the utilitarian debates. One work was On Taxes of Public Revenues, The Ultimate Incidence of their Payment, their Disbursement and the Seats of their Ultimate consumption, Calcutta, 1827. This book was reprinted from London in 1829 and New York in 1888. Second work was Analysis and Review of the peculiar Doctrines of Ricardo or New School of Political Economy Serampore, 1837.

17 Barry J. Gordon, has treated Sleeman as one of the five theorists producing non-Recordian economic theories. Collisson Black in his article “ Parson Malthus, the General and Captain”, in Economic Journal, Vol. LXXVII, pp. 59-74, compares Sleeman with Malthus.
the British administration.18 (Sleeman, 1836) On the one hand, if administration’s credibility and support from the subject people was at stake, on the other hand, such type of internal problems were creating difficulties in relations with princely states and frontier countries. The attachment of evils to the religion was a big hurdle for a real assessment of Indian situation for Sleeman. Adopting the pattern of “issues” or “strictures” of William Tennant, Sleeman selects the economic historical material from romanticists, evangelicals and travellers and places these facts to stabilize his arguments.

Sleeman believed although the law and order situation was grounded in the Hindu culture, yet the economic predation of the British in India through systematic policies necessarily contributed to the emergence of plundering groups. The economic depravity, famines, officials plunders, trade plunders and such other activities on the part of British East India company Sleeman’s attitude was determined by imperialist motives, geo-cultural concept of nationalism, romantic thought and anti-utilitarian economic attitude. However he seeks the application of all these views in the Indian society in such a way that may strengthen the British rule and economic concerns in India.

4. Sleeman and the Political Economy of Religions

Sleeman links all walks of life with economy: religion, law and order, imperialism etc. therefore his political economy combines religion and rule and establishes necessitarian link between the Indian people, moral evils and economic crises and deprivation. Dividing dominant majority of Hindus as subjugated and Muslim minority as suppressive ruling elite, Sleeman depicts Muslim rule as the cause of the destruction of Indian moral and economy. Impressed by the novelty of Hindu customs, traditions, fairs, fiction and culture, on the testimony of Bishop Heber (Heber, 1828) and Thomas Munro, (Gleig, 1831, p. 175) Sleeman tries to prove the cultural, civilizational, chivalrous and Inclusive nature of Hinduism and indigenous Hindu society. The destruction of cultural and economic heritage on the part of the non-indigenous ruling elites was the major cause of the immoral character and economic depredations of the Indians. For Sleeman the major cause of the promotion of fictious and mythological strength of superstitious structure was economic crises and plundering. (Sleeman, 184, p.7, 54)19

As a ruling elite and masters of political economy, Muslims have occupied a dominant space in the Sleeman’s necessitarianism. For Sleeman two major communities of India were similar to each other sharing rituals of birth and marriage and even superstitions 20(Matthews, 1809) and emanate necessarily from the Hindu and Muslim religion. Same is the nature of their economic attitude in which booty, plunder, dacoity, thuggy, everything is justified, not through the empirical sciences rather with irrational superstitious behaviour. (Sleeman, 1844, p.36-37) pointing to the mutual cultural influences, Sleeman highlight the muslim following of the concept of Avagon21 and custom of Suttee22 (Ibid, p.34.40) Muslim focus on life after death and suppression of Muslim women has minimized the economic re-productivity. (Ibid, p.198-200)

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18 Sleeman wrote some major reports and published books on the issue of Indian evils. Some of these writings are: Ramaseena or a Vocabulary of the Particular Language used by the Thugs with an Introduction and Appendix, Calcutta, 1836; A Report on the System of Megpunnaism or the Murder of Indigent Parents for Their Young Children’s (who are sold as slaves) as it Prevalis in the Delhie Territories and the Native States of Rajpoofana, Ulwar, and Bhurtpoor, Calcutta,1839; Thugs or Phansigars of India: Comprising a History of Rise and Progress of that Extraordinary Fraternity of Assassins, Two Volumes, Philadelphia, 1839; Report on the Depredations Committed by the Thug Gangs of Upper and Central India, Calcutta, 1840; Report on Budhuk Alias Bagree Dacoits and Other Gang Robbers by Hereditary Profession and on the Measures Adopted by the Government of India for their Suppression, Calcutta, 1849.

19 Although it is a fabulous concept, but was propagated by a number of romantic and missionaries to strengthen their arguments. Romanticists propagated it to create a sense of harmony between the Europeans and Indians. On the other hand Roman Catholics propagated it just to get the attention of local population. Through this concept they seem to be trying to highlights that what the Christian missions were propagating was not a new thing. It was the revival of true Indian religion.

20 Mishkat ul Masabih is a collection of the most authentic traditions of the Prophet (PBUH). Author os using the translation of Matthews under the title of Mishkat ul Masabih or the Collection of most Authentic Traditions Regarding the Actions and Sayings of Muhammed Exhibiting the Origin of the Manners and Customs;Civil, Religious and Military Policy of the Musalmans, from Calcutta in 1809-10.

21 The concept of rebirth among the Hindus. According to this concept every person comes back to this world after his death. If he does good acts in the first life he comes into good form other wise he appears in the form of some animals or insects.

22 Suttee was a custom among the Hindus. According to this custom a good women had to burn into ashes with the body of her deceased husband alive.
Property rights are considered one of the major areas of political economy and Sleeman’s narrative on the state of property rights in India is closely associated with necessitarian arguments. Sleeman binds the superstitions and evils as the consequential necessity of social and cultural ceremonials that lead to economic crises. However, the social thrust to ceremonial life he considers as a result of political-economic suppression. He is of the opinion that under an unsettled and despotic government people do not feel their property secure. Therefore, they feel it better to spend their earnings on superstitious rituals and ceremonials that promise them a psychological satisfaction and advantage for life-hereafter. (Ibid, p. 38-39) In this context, Muslims emerge as an imperial community with despotic political behaviour, establishing an economic structure to defend their imperial and despotic attitude. The militant and martial nature and status of Muslim community left no hurdle in the way of their plundering of Hindu wealth and establishing a state owned economy in the name of ‘mansabdari system’.

However he confess that this has been the common nature of all imperial elites (Ibid, p. 144) yet the Muslim rulers were very kind to their subjects and treated the Muslims, the Hindus, the Dutch and the English, alike. (Ibid, 137) In this regard, he praises the policy of Akbar the great (Ibid, p. 318-324) and Shahjahan (Ibid, p.52) and was very impressed by the beauty of the Muslim constructions and the generous and kind way they treat their subjects in times of trouble. That is why the indigenous population does not indulge in the feelings of hatred against their superiors and rulers. (Ibid, p.152) Sleeman see reversal of Akbar the Great’s policy of tolerance as a major cause of economic decline as well as the decline of the Mughal power in India. (Ibid, p.48-49) The Rajput blood had contributed a lot in the strength of the Mughal Empire, but Aurangzeb’s policy created a sense of enmity among the Hindus and the Muslims and a long series of wars actually destroyed the economy of India. This enmity and economic destruction became a blessing for the British rule in India.

5. Indian Institutions and Political Economy

Sleeman establishes a close relation between state institutions and political economy. For Sleeman strong political institutions provide a strength for the economic and social stability. He believed that the Indians had never established any sound system of social, economic and political laws. The Indian society lacked institutions, like that of the European senate, assembly, bar or bench or even stock exchange and joint stock companies. The absence of any law of political succession among the Hindus and the Muslim was an important cause of political instability in India resulting in wars and feuds, causing huge damages to public exchequer. The culture established norms even for the most obedient subjects and nobles to change their allegiance from one candidate of succession to the other or even to predators for economic gains and promote political chaos in the country. Sleeman finds the footing of Nineteenth century economic depression and political unrest as the necessary outcome of this attitude. (Ibid, p. 239-240) He points out the rise of Pindaris, Freebooters and Thuggs as a result of this trend. (Ibid, p. 491-492) However what kept the Indian society functional and integrated inspite of despotism and degenerated political economy was its efficient system of local government. (Ibid, p. 394) The system not only provided strength to the central administration rather looked into the minimum economic needs of the community at village, tribe and caste level.

In this context Sleeman draws lesson for the British political economy in India. As government policies bear a necessary relations with the conditions of the people and the deteriorated state of India economy was the result of political policies bearing impact on economy, therefore, Sleeman advised the British East Indi Company government not to look into economic utility of the political policies only for the British profits and gains rather assess the necessities of the indigenous people and culture. He proposes the establishment of good terms with local population and levying tolerant taxes on trade and. (Ibid, p. 482-83)

6. Conclusion

The nineteenth century Indian economic crises have been analysed in terms of communal relations between Muslims, Hindus and eth British. The major stress of the time has been on the positivist political economy with utilitarian model and morality. With this model, if on the one hand, introduction of Western institutions was justified, on the other hand, the exploits and plunders of the British Indian Subjects on the part of British East India Company and its employees were vindicated. Sleeman believed that the major cause of decline of Indian Economy was the British utilitarian policies which were necessarily bound to produce such results. Political-economic policies were bound to produce necessary results. Sleeman strengthens his arguments with the evidences from the Indian past and pleaded that a major difference in the utilities of rulers and ruled during the Muslim era was the major cause of economic depravity. In this context, Sleeman integrates the emergence of superstitions, lawlessness,
thuggy, Bagree dacoities, and Pindaries and other decedents as a necessarily determined result of foreign yoke in India. Sleeman highlights not only economic impact of the political economy and economic deprivation on society, rather binds it as a necessity with the moral and cultural decadence of society. Simultaneously, Sleeman integrates the economic policies with determined necessitarian impacts and argues that rather than commercial interests, necessities of the subjects should be priority of the political economic policy. Deprivation of basic necessities could produce a moral and political crises that can destroy the social and political fabric of even a highly civilized society such as India.

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Relationship Between University Students Time Management Skills and Their Academic Performance

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ARTICLE DETAILS

ABSTRACT

The purpose of this study is to determine the relationship of time management skills on the academic achievement of university students. The study used quantitative research design. The population of the study consisted of all Bachelor level students of public sector universities in Malakand Division. A random sample of 900 Bachelor level students from three universities of Malakand division participated in the study. Data were collected through Time Management Behavior Scale (TMBS) developed by Macan, Shahani, Dipboye and Phillips (1990) consisting of 34 items based on five-point rating scale. The students were also requested to provide their results in the last semester. Data were analyzed by using mean, standard deviation, independent samples t-test, and Pearson’s coefficient correlation. The university students exhibited moderate level of time management skills. No significant difference was found between the perceptions of male and female students. A positive significant moderate relationship was found between the four constructs of TMBS and students academic performance. It was concluded that the students who have good time management skills tends to have higher academic achievement and decreased time management skills could result in decreased outcomes. The study recommended that university students should concentrate on developing their capacities in time management areas through trainings, workshops and seminars to increase their academic achievement.

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1. Introduction

Students often face the problem of not managing their time properly for academic and non academic activities. Consequently, they may not be able to get good marks in their final examination and may not be able to reach their destination. The duration of semester is very short. Up to twelve years of school education, they appear in annual system of examination. They have sufficient time for their studies and other activities. But when they enter to...
university education their system of examination has been changed. The annual system of examination has been replaced to semester system of examination. Here the duration of time is very short and the amounts of activities are more. They will have to manage their time to cope with this system.

There are many factors responsible for the performance of university students. Both academic and non academic factors are being responsible to affect the students’ performance. One of the major aims of higher education is to enable the students to develop the critical thinking of students and sharpen their mind to solve their own problems through teaching, feedback and use of appropriate resources to improve their knowledge. One of the non academic factors is time management skill which affects the students’ performance. Students who manage their time effectively perform well and have low level of stress and anxiety (Davis, 2000; Kearns & Gardiner, 2007) and satisfied with their work (Macan, 1994). On the other hand, a student who cannot keep balance between their academic and personal life may face the problems like dissatisfaction, somatic tension, having poor sleep habit and perform poorly (Hardy, 2003; Van der Meer, Jansen, & Torenbeek, 2010). Time management is the way of controlling and monitoring one’s time (Eilam & Aharon, 2003). Claessens, van Eerde and Rutte (2007: 262) have defined time management as “behaviours that aim at achieving an effective use of time while performing certain goal-directed activities”.

Research findings show a positive relationship between time management skills and academic achievement of students (McKenzie & Gow, 2004). On contrary, students having poor time management skills perform poorly in examinations (Ling, Hefferman, & Muncer, 2003; Scherer, Talley, & Fife, 2017). Macan et al., (1990) found that students who perceived control of time significantly perform better in academics, high life satisfaction, less role overload, less role ambiguity, and fewer job somatic and job induced tensions. Students having capacity to manage time effectively can develop good study habits and strategies for success (Krause & Coates, 2008). Britton and Tesser (1991) found that time management behaviour may predict the grade point average of the students. Adams and Blair (2019) found a significant correlation between students’ perceived control of time and cumulative grade point average.

Most of the researchers perceived that students having good time management skills tend to get good marks in examination and having low level of anxiety. However, many students find it difficult to keep a balance between their studies and day to day life activities. These findings were only restricted to European countries and developed countries. The literature shows that this area has remained in ignorance in the local setting. Therefore, to fill this gap the current study aimed to find out the relationship between university students time management behaviour and their academic achievement should be investigated to reach concrete results in the field of education.

Research Questions
To reach to the valid conclusions, following research questions were formulated;

- At what level do the university students demonstrate the time management behaviour?
- Does gender has any effect on time management behaviour of university students?
- Whether time management behaviour of university students is associated with cumulative grade point average?

2. Research Methodology
The nature of the study was quantitative. Descriptive (survey) method was used to collect data from the respondents. The population of the study consisted of all undergraduate level students (BS students) who were studying in the academic session 2017-18. A random sample of three universities was selected from Malakand division. Then, a sample of 900 undergraduate students was selected in stratified sampling. A random sample of 300 undergraduate students was selected from each university.

The researchers used Time Management Behavior Scale (TMBS) developed by Macan et al., (1990) consisting of 34 items based on five-point rating scale ranging from seldom true to very often true was used to collect data. This scale was used for data collection because it was a valid, reliable and predictive for measuring students’ reflection of their time management behaviour strategies and their academic load (Adams & Blair, 2019; Misra & McKean, 2000). This scale is further distributed into four major attributes consisted of setting goals and priorities, mechanics of time management, preference for organizations and perceived control of time. The first attribute setting goals and priorities consisted of 10 items, the second attribute mechanics of time consisted of 11 items, the third attribute preference for organizations consisted of 08 items and the fourth attribute consisted of 05 items. The reliability of the scale was established through inter item consistency and was found 0.76, which was more than that of the
The original scale 0.68 calculated by Macan et al., (1990). The Cronbach’s alpha value was also calculated for each attribute. The inter item reliability for setting goals and priorities was 0.78, for mechanics of time was 0.79, for preference for organizations was 0.73 and for perceived control of time was 0.70.

The researchers distributed 900 survey packets among undergraduate students of sampled universities. A written consent letter was also attached with each questionnaire to invite the participants to participate and rank their opinion on continuum. The consent letter also consisted of describing purposes of study and ensuring confidentiality and anonymity for the institution and teachers. Six hundred and seventy filled questionnaires were collected from the respondents. Out of which seventeen were un-useable and were discarded. Thus 653 useable questionnaires were used for data analysis with a final response rate 72.55%.

3. Data Analysis

The researchers used parametric tests to analyze the collected information. Negatively worded items were reverse scored. The researchers analyzed the undergraduate students’ demographic information through frequency and percentage. The objectives related to determining the level of time management behaviour was determined through mean and standard deviation scores. Using the mid-point mark 3.0 on the five points Likert scale, it was assumed that a statement having mean score of more than 3.0 will demonstrate high level of evidence of time management. To find the gender effect of the students independent samples t-test was used. Pearson’s co-efficient correlation was used to find the relationship between students’ perceived time management behaviour and their academic performance. Out of 653 respondents, 407 (62.33%) were male and 246 (37.67%) were female.

Table: 1 Undergraduate students time management level

<table>
<thead>
<tr>
<th>Time management attributes</th>
<th>Number of Items</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting goals and priorities</td>
<td>10</td>
<td>653</td>
<td>3.56</td>
<td>0.567</td>
<td>2</td>
</tr>
<tr>
<td>Mechanics of time</td>
<td>11</td>
<td>653</td>
<td>3.44</td>
<td>0.644</td>
<td>4</td>
</tr>
<tr>
<td>Preference for organization</td>
<td>08</td>
<td>653</td>
<td>3.61</td>
<td>0.592</td>
<td>1</td>
</tr>
<tr>
<td>Perceived control of time</td>
<td>05</td>
<td>653</td>
<td>3.49</td>
<td>0.813</td>
<td>3</td>
</tr>
<tr>
<td>TMBS</td>
<td>34</td>
<td>653</td>
<td>3.52</td>
<td>0.523</td>
<td></td>
</tr>
</tbody>
</table>

The above table shows the perceptions of students about their time management behaviour. The mean scores show that each construct has more than the mid-point 3.0, which shows that the level of time management behaviour of undergraduate students for each construct was found high. The mean score for the construct preference for organization was found to be higher than that of other constructs, this shows that students gave much importance to manage their time than that of other constructs. On the other hand, the mean score for the construct mechanics of time was found to be lower than that of the other constructs on the scale, which demonstrated that undergraduate students perceived this construct to be least important to manage their time than that of the other constructs. The overall time management behaviour level of undergraduate students was found to be high.

Table: 2 Comparison between male and female students’ time management behavior

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>407</td>
<td>3.57</td>
<td>0.572</td>
<td>1.356</td>
<td>0.07</td>
</tr>
<tr>
<td>Female</td>
<td>246</td>
<td>3.51</td>
<td>0.541</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows the difference in the perceptions of undergraduate students regarding time management behaviour. As the value of t-statistics was found greater than that of the significance level value, therefore, no statistical significant difference was found between the perceptions of male and female students regarding time management behaviour.

Table: 3 Relationship between TMBS constructs and Academic Performance of Students
The above table shows the relationship between TMBS constructs scores and total scores of student’s Academic Performance. The results show that there is positive significant moderate relationship between MTM and SGP (.427); positive significant strong relationship between PFO and SGP (.662) and positive significant moderate relationship between PFO and MTM (.505). There is positive significant weak relationship between PCT and SGP (.247); PCT and MTM (.329) and positive significant moderate relationship between PCT and PFO (.452). The results also shows that there is positive significant strong relationship between TMBS and SGP (.791); TMBS and MTM (.716), TMBS and PFO (.859); and TMBS and PCT (.674). On the other hand, there is positive significant moderate relationship between AP and SGP (.369), AP and MTM (.434); AP and PFO (.475); AP and PCT (.428); AP and TMBS (.489) respectively.

5. Discussion
The findings of the study show that undergraduate students exhibit high level of time management behaviour. There was no statistical significant difference between the time management behaviour of male and female undergraduate students regarding their time management behaviour. There is moderate positive significant relationship between undergraduate students’ time management behaviour and their academic performance. Students who manage their time effectively are expected to show good results.

The mean score of time management behaviour was found higher than the cutoff point 3.0, which shows that undergraduate students time management level are high. This shows that students who are enrolled in semester system are well aware of the sensitivity of limited time. They are aware in advance about semester schedule. Therefore, they do planning according to the set schedule. They try to achieve target goals through doing short and long range planning. They prioritize their tasks according to their importance. They set to-do list for each day, week and moth through short range planning. Similarly, they set long term goal i.e. semester based goals which is to perform well in the semester. They try to achieve these long term goals through long range planning. The mean scores for all the four constructs were found more than the mid-point 3.0, which shows that students manage their time by setting goals and prioritizing the tasks, making to-do list and plan consciously and realistically to achieve...
set goals through short and long range planning, and effectively handling interruptions that destruct them from their study. These results were testified by many other studies which have been conducted in different western and other countries (Kaya, Kaya, Palloş, & Küçük, 2012; Mohamed, Hamal, & Mohamed, 2018; Razali, Rusiman, Gan, & Arbin, 2018).

The study also found no statistical differences between the male and female undergraduate students about perceived control of time. Both the gender takes care of the available time and utilized it efficiently and effectively. They set goals and prioritize tasks, plan and make to-do lists, organized their workplace and handle interruptions effectively and perceived that they have control over the use of their time. Many studies conducted internationally confirmed the results of this study (Adams & Blair, 2019; Razali, Rusiman, Gan, & Arbin, 2018) while many have found significant difference regarding gender (Karakose, 2015; Kaya, Kaya, Palloş, & Küçük, 2012).

It was found that there is moderate positive relationship between time management behaviour of undergraduate students and their academic achievement. All the sub categories of the time management behaviour have moderate positive relationship with academic performance of the undergraduate students. It shows that if students’ academic and personal life is well organized then they will achieve higher grades and vise versa. These results have been confirmed and testified by many researchers throughout the world in different fields of studies like engineering and medical (Adams & Blair, 2019; Britton & Tesser, 1991; Burt & Kemp, 1994; Karakose, 2015; Kelly, 2002; Macan, 1994; Razali, Rusiman, Gan, & Arbin, 2018).

6. Conclusions
Following conclusions were drawn on the basis of study findings:

- The undergraduate students’ time management behaviour was found of high level. Students believed that practices like setting goals and priorities, planning and scheduling, handling interruptions and well-organized workspace and having positive attitude towards time management.
- No significant difference was found in time management behaviour of undergraduate students by gender. Both gender considered time management equally important in their academic and personal life.
- A positive moderate significant relationship was detected between undergraduate students’ time management behaviour and academic performance. The scores on time management behaviour scale was positively significantly associated with students cumulative point average scores. The increase in time management behaviour of students accompanies with the increase in academic achievement of the students.

7. Recommendations
Following recommendations and suggestions are offered to undergraduate students and university officials.

- It is recommended that undergraduate students must study books related to time management strategies through which they will get information about the skills, strategies and practices to manage their time efficiently and effectively.
- The university officials should arrange seminars and workshops for students to make them sensitize about managing time and increase their productivity. Through this they can maintain a balance between their academic and personal lives.
- Students should recognize that managing time will help them to maximize their academic performance and quality of life. For this seek to learn skills like setting goals, prioritize the tasks on urgency basis, accomplish for short and long term goals, schedule and planning their activities, handling interruptions and organize workplace and have positive attitude towards use of time.

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Interconnection of Strategic Integration, Hrm Effectiveness and Market Performance: Evidence From Banking Sector of Pakistan

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ABSTRACT

The main aim of current study is to highlight the effects of strategic integration (SI) of HRM on HRM effectiveness (HRME) and market performance (MP) in banking sector of Pakistan. In addition, the mediating role of HRME and moderating role of market orientation (MO) were also tested. A structured and standardized measures were used to gather data from the officers working in banking sector of Pakistan. It was found that both vertical and horizontal integration of HRM positively affected HRME and MP of the banks. The results revealed that HRME mediates the relationship of SI of HRM and MP. In addition, it was also observed that by nurturing a market-oriented culture, the organizations can further strengthen the relationship between SI of HRM and MP. This study added valuable inputs into the existing research on the SHRM integration and its effects on MP of the firms by incorporating the moderating role of MO and mediating role of HRME. The results suggested that SI of HRM along with MO within an organization will not only improve the HRME, it will also lead to better MP.

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1. Introduction

Strategic Integration of HRM refers to a complete integration of HRM process with organizational strategies, both vertically and horizontally (Beer et al., 1984). Vertical integration of HRM refers to the integration of HR strategy and corporate level strategy. Horizontal integration focuses on internal alignment of different sub-functional units of HRM like staffing, human resource development and rewards management etc. (Gratton and Truss, 2003). Jackson et al. (2014) in their study highlighted that SI of HRM is positively associated with organizational performance (OP). They argued that SI differentiates SHRM from traditional HRM research because SHRM not only focuses on improving customer value, but it also highlights the contributions of HRM in improving firm performance.
The organizational outcomes are the ultimate results, whereas, HR outcomes like responsiveness, effectiveness and efficiency of HR department are the immediate outcomes of SI (Rogers & Wright, 1998). Colakoglu, Lepak and Hong (2006) stated that, as an immediate outcome of SI of HRM practices it enhances HRME, and as a result HRME influences the market and financial performance of an organization. Therefore, HRME acts a bridge between SI of HRM and various outcomes, preferably market performance. Therefore, in this study, HRME is taken as a mediating variable.

Similarly, the MO is also considered as an important and related phenomenon in connection with SI of HRM practices and various organizational outcomes (Harris & Ogbonna, 2001). It was argued that the market orientation (MO) can play a significant role in improving market performance (MP) by developing and maintaining a close relationship with the customers (Hult & Ketchen, 2001). Gebhardt et al. (2006) highlighted that existing research is mainly focusing on external outcomes of MO and ignores the internal consequences of MO. Kirca et al. (2005) also suggested that the researcher must also consider the internal employee related processes in the relationship of market orientation and various performance outcomes like MP. Considering the importance of market orientation, this current study also tested the moderating role of market orientation in between the SI and MP.

2. Literature Review

2.1 Strategic Integration of HRM

There are numerous studies that highlighted the importance of strategic integration of HRM. It is now widely acknowledged that HRM can play a proactive as well as a reactive role in organizational settings. HRM can proactively help in designing the organizational strategy, whereas, in a reactive role, HRM strategy is based on overall organizational strategies. Lawler et al., (2011) argued that successful organizations develop effective HRM systems in order to apply specific business strategies. Naznin and Hussain, (2016) argued that HR leader is now considered as an important value contributor in an organization and is directly involved in the process of overall strategic planning. While operationalizing the notion of SI of HRM, the available literature categorized this concept into two broad categories: horizontal integration and vertical integration.

2.2 Vertical Integration (VI)

VI refers to the alignment of HR strategy with corporate or business strategy (Gratton & Truss, 2003). It focuses on linking a set of HR policies/practices with overall organizational strategies as proposed in contingency perspective of HRM. Different indicators have been used to evaluate the VI, for example, representation of HR leader in BODs, his participation in formulation of organizational strategy, the existence of mission statement, business strategy and written HR strategy (Dietz et al., 2004).

2.3 Horizontal Integration of HRM

HI of HRM is recognized as an integral part of SI and is defined as the process of designing internally consistent and coherent HR practices, which improve organizational effectiveness by developing synergies (Fombrun et al., 1984). A higher level of internal consistency among the HR practices helps to attain some synergies that positively influence the organizational performance (Jiang et al., 2012; Kidron et al., 2013).

2.3 HRM Effectiveness (HRME)

HRME effectiveness refers to “the delivery of high-quality technical and strategic HRM activities”. The technical HRME focuses on improving conventional HRM activities like staffing, training and rewards management etc. The strategic HRM effectiveness focuses on achieving competitive advantage through innovation and creativity in managing HRM.

2.4 Market Orientation (MO)

MO refers to the organization’s capabilities to meet customer’s expectations, for example, the organizations ability to follow market trends and in developing close relationships with customers. Ruekert (1992) presented an empirical evidence of the relationship of MO with HR like recruitment, training and reward management. The intelligence perspective views market orientation as an organization’s capability to obtain information regarding customer needs and communicating such information throughout the organization for improving customer responsiveness (Kohli & Jaworski, 1990). Following the approach of Zhou et al. (2008), we focused on both the cultural and market intelligence perspectives of MO. These findings of Zhou et al., suggested that MO can be used as a tool to improve the utility of organizational resources and capabilities. Zhou et al. (2008) argued that MO helps the firms in achieving competitive advantage.
2.5  Market Performance
In studying the ultimate performance outcomes of an organization, two dimensions of organizational performance can be identified, market performance (MP) and financial performance (FP). MP refers to a firm’s effectiveness in achieving market targets like customer satisfaction, customer loyalty and market share. Oh, Cho and Kim, (2014) defined the MP as an ability of firm to achieve market-related targets as compared to its competitors.

2.6  Strategic Integration and Market Performance
Several authors highlighted the vertical linkage of HR practices or subsystems of HRM with overall organization strategy and its outcomes. Miles and Snow (1984) in their studies developed the theoretical basis of both types of SI. They argued that an appropriate arrangement between HRM strategy and organizational strategy and consistency among the HR practices are essential in achieving market targets. Schuler and Jackson (1987) studied employees’ behaviors that are needed in organization for each of the three Porter’s (1980) strategies i.e. innovation, quality-enhancement and cost reduction and identified the appropriate HR practices for each.

Similarly, the researchers also highlighted the importance of HI and its importance in facilitating organizational outcomes. However, the propositions that organizations with aligned bundles of HR strategies always outperform others have not always found support by the empirical findings (Samnani & Singh, 2013). Therefore, in-depth investigation is necessary to probe the effects of VI and HI on various performance outcomes like market performance. Therefore, the study in hand is an effort to examine the effects of both VI and HI on market performance of the banks. The following hypotheses were developed to evaluate the effect of HI and VI on market performance of the banks.

Hypotheses 1: If HR practices are vertically aligned with each other, it will lead to high market performance.
Hypothesis 2: If HR practices are horizontally aligned with each other, it will help organizations to achieve high market performance.

2.7  Strategic Integration and HRM Effectiveness
Wang and Shyu (2008) concluded that VI directly effects the success of an organization and labor output. In addition, they also investigated the effects of HRME on organizational performance and concluded that SI of HRM offers several solutions to complex issues in organizations. They argued that SI advocates that equal importance should be given to all types of organizational resources while establishing and implementing the goals. Kidron et al. (2013) argued that actual integration mechanisms help to improve coordination and cooperation between different HRM functions and among HRM employees, which will result in positive synergies and thereby positively influencing HRME.

Hypothesis 3: Vertical integration of HRM positively affects HRM Effectiveness.
Hypothesis 4: Horizontal integration of HRM positively affects HRM Effectiveness.

2.8  Mediating role of HRM Effectiveness
As noted in previous section, many researchers found a positive association among SHRM practices and OP; however, there are some researchers who believed that the immediate effect of strategic management practices is on HRM outcomes (e.g. Dyer & Reeves, 1995; Colakoglu, Lepak & Hong 2006 etc.). These positive HRM outcomes then influence various performance outcomes (Fey et al. 2000). The organizational outcomes are the ultimate results while the HR outcomes are the immediate outcome of strategic human resource management (Rogers & Wright; 1998). It is important for a firm to better utilize its capabilities by effectively managing the human resources, because fundamentally employees are not efficient (Russo & Fouts, 1997), the effective management of HR helps firms in achieving better outcomes (Pfeffer, 1994). In this study, we included HRME as an outcome of SI and MP as an outcome of HRME. In other words, HRME acts as a bridge between SI of HRM and MP. Based on these arguments, we hypothesized that:

Hypothesis 5: The relationship between vertical integration of HRM and market performance is mediated by HRM effectiveness.
Hypothesis 6: The relationship between horizontal integration of HRM and market performance is mediated by HRM effectiveness.
2.9 Moderating role of Market Orientation

Several researchers have investigated the direct impact of MO on OP (Ketchen, Hult, & Slater, 2007). However, still there is a need to highlight the mechanism through which MO affects organizational performance. Some researchers studied the innovativeness and customer loyalty in relation with MO, however, the internal organizational processes through which MO improves organizational performance are rarely discussed. Gebhardt et al. (2006) highlighted that there is a limited understanding of MO due to the lack of research on internal processes. Kirca et al. (2005) suggested that the researcher should also take into account the internal employee related processes in the relationship of MO and OP. A market-oriented organization focuses on unifying the distinct endeavors in the delivery of customer value and also on providing an incentive to its customers as compared to its competitors (Kohli and Jaworski 1990). MO has the potential to attract, satisfy and retain the customers and then attaining the desired market targets like sales growth and market share. Zhou et al., (2008) in his study argued that MO indirectly influences financial performance through the market performance.

Hence, it is predicted that MO further strengthens the association between SI of HRM and MP. Considering the above-mentioned arguments, following hypotheses have been developed:

Hypothesis 7: Market orientation strengthens the relationship between VI and MP.
Hypothesis 8: Market orientation strengthens the relationship between HI and MP.

The following theoretical framework was developed based on review of relevant literature:

![Theoretical Framework](image)

3. Methodology

The current study was conducted on baking sector of Pakistan. The data was collected from 351 managers of different banks from seven districts of Khyber Pakhtunkhwa province of Pakistan. This research tested hypothesized model by employing a cross-sectional design to test the proposed hypotheses. In the course of data collection for the current study, all the national and international standards were considered. A structured questionnaire was used for the purpose of data collection. Data collection for the current study was a lengthy process which was initiated in the month of June 2018 and was completed in March 2019. Data collection process was based on three phases. In the first phase, questionnaires were mailed on the postal addresses of bank managers. In the first phase, the response rate was not satisfactory. In second phase respondents were contacted through phone calls for their cooperation. In this phase, the response rate was also not desirable. In the last phase, 5 Research Assistant were hired, trained and guided to collect the data from seven districts selected for the research. After all these phases of data collection, the research team has collected 351 useable responses.
3.1 Measures
Strategic Integration was operationalized with its two dimensions: vertical integration and horizontal integration. A scale consisting of 12 items was used for measuring the level of VI (Budwar, 2000). These 12 items produced the Cronbach’s α value of 0.88. Whereas, a scale consisting of five items and introduced by Gratton and Catherine (2003) was adapted to measure the HI. In current study its Cronbach’s α value was 0.78. HRM Effectiveness was assessed through an eight-items scale which was introduced by Ryu & Kim (2011). These 08 items produced the Cronbach’s α value of 0.86. Market performance was evaluated with a 7-items scale formulated by Delaney and Huselid, (1996). These 07 items produced the Cronbach’s α value of 0.82. A set of fifteen questions was used to measure market orientation (Han, Kim & Srivastava, 1998). These 15 items produced the Cronbach’s α value of 0.80.

Manager’s age, gender, nature of job, educational level of manager, experience and education were taken as control variable.

4. Results and Analysis
Table 1 shows the statistical results of hypothesized relationships of predictors and criterion variables. Both descriptive and inferential statistical techniques were used in data analysis. First section provides the Mean, SD and the coefficient of correlation among the study variables. The findings presented in table 1 confirm the significant correlation among the variables of the study. As it is clear from the results that vertical integration is significantly correlated with HRME (r=0.23), MP (r=0.42) and MO (r=0.33). Similarly, horizontal integration is significantly correlated with HRME (r=0.28), MP (r=0.32) and MO (r=0.47). HRME is significantly correlated with MP (r=0.34) and MO (r=0.31).

Table: 1 Summary of Correlation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>29</td>
<td>.87</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.8</td>
<td>.82</td>
<td>.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>3.2</td>
<td>.84</td>
<td>.10*</td>
<td>.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job type</td>
<td>1.3</td>
<td>.83</td>
<td>.05</td>
<td>.03</td>
<td>.02</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>2.4</td>
<td>.80</td>
<td>.04</td>
<td>.01</td>
<td>.02</td>
<td>.02</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td>3.4</td>
<td>.89</td>
<td>.07</td>
<td>.08</td>
<td>.05</td>
<td>.02</td>
<td>(.890)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>3.5</td>
<td>.92</td>
<td>.09</td>
<td>.08</td>
<td>.05</td>
<td>.02</td>
<td>.32**</td>
<td>(.850)</td>
<td></td>
</tr>
<tr>
<td>HRM E</td>
<td>3.7</td>
<td>.90</td>
<td>.07</td>
<td>.02</td>
<td>.03</td>
<td>.06</td>
<td>.23**</td>
<td>.28**</td>
<td>(.849)</td>
</tr>
<tr>
<td>MP</td>
<td>3.6</td>
<td>.88</td>
<td>.05</td>
<td>.04</td>
<td>.07</td>
<td>.04</td>
<td>.42**</td>
<td>.32**</td>
<td>.34**</td>
</tr>
<tr>
<td>MO</td>
<td>3.2</td>
<td>.89</td>
<td>.04</td>
<td>.01</td>
<td>.02</td>
<td>.05</td>
<td>.33**</td>
<td>.47**</td>
<td>.31**</td>
</tr>
</tbody>
</table>

4.1 Mediation Analysis
Table 2 presents the findings of simple regression test. The results confirm the prerequisites conditions of mediation proposed by Baron and Kenny (1986). First three conditions were confirmed because the results presented in table-2 confirm the standard norms of Baron and Kenny (1986) approach. The results shown that VI significantly predict HRME (β = 0.23), and MP (β = 0.42). Therefore, H1 and H3 are confirmed. Moreover, horizontal integration significantly predicts predict HRME (β = 0.28), and MP (β = 0.32). Therefore, H2 and H4 are confirmed. Moreover, the positive relationship between HRME and MP is also confirmed (β = 0.34).

Table: 2 Regression with HRM effectiveness as mediator and MP as dependent variable

<table>
<thead>
<tr>
<th>Independent factors</th>
<th>HRM effectiveness</th>
<th>MP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R2</td>
<td>S.Error</td>
</tr>
<tr>
<td>Vertical integration</td>
<td>0.35</td>
<td>0.065</td>
</tr>
<tr>
<td>Horizontal integration</td>
<td>0.16</td>
<td>0.036</td>
</tr>
<tr>
<td>HRM effectiveness</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

HRM Effectiveness (Human Resource Management Effectiveness); MP (Market Performance)
Table 3 shown the results for the confirmation of fourth condition. Results presented in Table 3 confirmed the mediation of HRME, because when HRME was included as the mediator, the direct effect of vertical integration on MP was insignificant ($\beta = 0.09$). Furthermore, the direct effect of horizontal integration on MP was also insignificant ($\beta = 0.06$). These results confirmed the mediation of HRME between vertical integration and MP and horizontal integration and MP. Therefore, H5 and H6 are hereby confirmed.

Table 3. Multiple regression results for MP

<table>
<thead>
<tr>
<th>Model</th>
<th>Factor</th>
<th>R2</th>
<th>F</th>
<th>S.Error</th>
<th>B</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vertical Integration</td>
<td>0.35</td>
<td>89.26</td>
<td>0.094</td>
<td>0.09</td>
<td>0.95</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>HRM effectiveness</td>
<td></td>
<td></td>
<td>0.065</td>
<td>0.58</td>
<td>8.92</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Horizontal Integration</td>
<td>0.36</td>
<td>92.26</td>
<td>0.040</td>
<td>0.06</td>
<td>1.50</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>HRM effectiveness</td>
<td></td>
<td></td>
<td>0.057</td>
<td>0.55</td>
<td>9.64</td>
<td>0.00</td>
</tr>
</tbody>
</table>

4.2 Moderation Analysis

Table 4 captures the results of moderation of MO on the association between vertical integration and MP as well as moderation effect on the association between horizontal integration and MP. Table 4 presented the results of moderation of MO on vertical integration and MP and confirmed that coefficient of the interaction term i.e. vertical integration x MO is significant, which indicates that market orientation moderates the relationship of vertical integration and MP ($\beta = .18$, p<.01). Therefore, H7 is hereby confirmed.

Table 4 also presented the results of moderation of MO on horizontal integration and MP and confirmed that coefficient of the interaction term i.e. horizontal integration x MO is significant, which indicates that MO moderates the relationship of horizontal integration and MP ($\beta = .21$, p<.01). Therefore, H8 is hereby confirmed.

Table: 4 Results of multiple hierarchical regressions

<table>
<thead>
<tr>
<th></th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderating effect of market orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Integration</td>
<td>0.42**</td>
<td>0.33**</td>
<td>0.37**</td>
</tr>
<tr>
<td>Market orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Integration x Market orientation</td>
<td>0.18*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>.32</td>
<td>.36</td>
<td>.38</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>.31</td>
<td>.33</td>
<td>.35</td>
</tr>
<tr>
<td>$\Delta$ R2</td>
<td>.32</td>
<td>.05</td>
<td>.02</td>
</tr>
<tr>
<td>$\Delta$ F</td>
<td>291.76**</td>
<td>47.56**</td>
<td>20.98**</td>
</tr>
<tr>
<td>Horizontal Integration</td>
<td>0.32**</td>
<td>0.29**</td>
<td>0.31**</td>
</tr>
<tr>
<td>Market orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal Integration x Market orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>.32</td>
<td>.36</td>
<td>.38</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>.31</td>
<td>.33</td>
<td>.35</td>
</tr>
<tr>
<td>$\Delta$ R2</td>
<td>.32</td>
<td>.05</td>
<td>.02</td>
</tr>
<tr>
<td>$\Delta$ F</td>
<td>291.76**</td>
<td>47.56**</td>
<td>20.98**</td>
</tr>
</tbody>
</table>

Furthermore, slope analysis as recommended by Aiken et al. (1991); Figure 2 and Figure 3 presents the outcomes of slope analysis.
5. Conclusion
The findings of current study confirmed that both horizontal and vertical integration of HRM have a vital role in the achievement of market targets in banking sector of Pakistan. It was observed that both dimensions of SI are positively associated with MP of Banks. The results of this study augment the claim of RBV theory, which states that firms can achieve sustainable competitive advantages through efficient utilization of internal resources. Similarly, it was also observed that SI of HRM will improve HRME and better HR outcomes lead to improved organizational performance. The organizational outcomes are the ultimate results while the HR outcomes are the immediate outcome of SHRM.

It was observed that vertically and horizontally aligned HR practices improve HRME and in return HRME improves the MP of an organization. The results indicate that HRME positively mediates the relationship between
SI of HRM and MP. These findings highlighted the importance of HRM in improving organizational performance, therefore, it is concluded that firms can improve their performance by effectively managing their human resources. The results of this study also confirm the findings of previous studies which indicated that both vertical and horizontal integration are the important predictors of HRME and helps to significantly increase business performance (Jiang et al., 2012; Ridder et al., 2012; Kidron et al., 2013). The study also highlighted the importance of adopting a market-oriented approach, it was observed that market orientated approach further strengthens the relationship of SHRM integration and MO.

Implications and Limitations

This study also contributes to the existing knowledge through notable ways. This study developed a theoretical model on the basis of the gaps identifies in previous studies. The findings not only validated the results of previous studies regarding the impact of SI of HRM on organizational outcomes, it also has the potential to fill the gap highlighted by the previous studies. Most of the literature focuses on innovativeness and customer-related outcomes (Cacciolatti, and Lee, 2016) such as customer loyalty in relation with MO, however, the internal organizational processes like employees related concerns are ignored in previous studies (Kirca et al., 2005; Gebhardt et al., 2006).

This study also has important practical implications. As the banks are currently facing a very strong competition by both national and international players, they must maintain a set of internally coherent and vertically aligned HR practices along with MO. A strategically aligned and flexible approach to the management of human resources will improve customer responsiveness and will enable the banks to provide quality services to the customers.

The main limitation is its cross-sectional design which limits the causal relationships. The future studies may extract the findings through a longitudinal study which may consider how SI affects important organizational and employees related outcomes over the period. Secondly, this study has collected the data from a smaller sample; therefore, future research may collect the data from larger samples across Pakistan so that the generalizability issue may be resolved.

References


Do Migrant Remittances Spur Financial Development in Pakistan? Evidence From Linear and Nonlinear ARDL Approach

Muhammad Faheem, Azali Mohamed, Fatima Farooq and Sajid Ali

The study assesses the influence of migrant remittances on financial development over the period of 1976-2018 in Pakistan. This study has applied the linear autoregressive distributive lag (ARDL) model and nonlinear autoregressive distributed lag (NARDL) model to check the symmetric and asymmetric effect of remittances. Results of the ARDL and NARDL bound test confirm remittances, FDI, real GDP and inflation significantly contributing to financial development. The outcomes of ARDL and NARDL have also confirmed the significant positive effect of migrant remittances on financial development in long-run. The asymmetric ARDL results show the existence of remittances nonlinear effect on financial development. Specifically, the study found remittances decrease have a significant impact while remittances increase have no any significant effect on financial development. Based on findings, this study recommends the plan for the policymakers of recipient countries, especially Pakistan, could harvest the potential gain of migrant remittances though positive asymmetric association with financial sector development.

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Keywords: NARDL, Financial Development, Migrant remittances, Pakistan

JEL Classification: F24, B26, F43

1. Introduction
Migrant remittances are considered more stable than any other international financial flows and become a significant input in Asia, Africa, Latin America and Pacific region’s economic development during the last three decades (Ratha, 2004; Bhattacharya et al., 2018). However, still, it relies on informal transfer channel23 inspite of bank transfer (Adams and Page, 2005). However, the bank estimates show the flow of remittances reached $529 billion to low- and middle-income economies in 2018 (World Bank, 2018).

23 Informal remittances transfer channel is medium of unrecorded capital export through unofficial international financial transaction (Brown, 1992).
Economic development of a country depends on finance and it is supposed to be core of modern economy (Aibai et al., 2019). Since the 2000s, the integration of developing countries with the capital inflows and the global financial system is due to the third phase of globalisation because financial globalisation improves the functioning of financial system (Bhattacharya et al., 2018). The role of financial institutes and markets is significant in economic growth and development, especially in productive activities through their role in finance allocation (Levine, 2005; Nazar et al. 2018). Sound research has been done in empirical studies to check their role in different economies by using various econometric techniques. A lot of literature highlights the efficiency of financial institutions and financial markets to enhance economic growth (Pagano 1993; Levine 2003; Goodhart, 2004).

Pakistan economy is in the list of the fastest-growing economies of Asia, which remains its position in the world’s remittance recipient countries (World Bank, 2018). Traditionally, in Pakistan, migrant remittances have remained the source of foreign exchange earnings (Luqman and Haq, 2016). Following graph shows the trend of personal remittances from 1976 to 2018. The increase in personal remittances shows upward trends with time.

![Personal Remittances Inflow to Pakistan](source)

Source: Authors’ computation with data from WDI

Many studies have been explained the impact of remittances while a few of them considering financial development. The previous literature discussed the linkage of remittances with different areas of interest i.e., remittances and Dutch disease effect (Hassan and Holmes, 2013; Chowdhury and Rabbi, 2014; Roy and Dixon, 2016; Urama et al., 2019), remittances impact on growth (Cooray, 2012; Meyer and Shera, 2017), remittances influence on education and sustainable development (Calero et al., 2009; Adams and Page 2005); remittances and environmental effect (Li and Zhou, 2015), remittances and political institutions (Williams, 2017); remittances and foreign exchange earnings (Keely and Tran, 1989), remittances and health expenditures (Valero-Gil, 2009; Terrelonge, 2014); household expenditure pattern (Taylor, 1992; Ogunwole, 2016); on investment (Glytsos, 2005; Kapur and McHale, 2003; Balde, 2011), poverty and income inequality (Bang et al., 2016; Docquier and Rapoport, 2003), unemployment (Ratha, 2005), and remittances and productivity of the labour (Al Mamun et al., 2015; Al Mamun et al., 2016).

However, a single question arises that if the developed financial market is responsible for the country’s economic growth then why many countries are still financially underdeveloped in the world and remittances inflows have any influence on financial development? This study tries to answer by analyzing the symmetric and asymmetric relation of migrant remittances with financial development by employing ARDL and nonlinear ARDL (NARDL) in Pakistan.

The rest of our paper is structured as follows. Literature review provides in section 2. Section 3 presents methodology. Section 4 reports the empirical results and discussion. In the last, concluding remarks and some policy recommendations are given in section 5.

2. Literature Review
Although there is an ambiguous and unclear association of migrant remittances with financial development (Aggarwal et al., 2011), however, literature explains several reasons behind the linkage of remittances with banking sector development is positive. The first and most important reason is as remittances being lumpy as sending the cost of migrant remittances is fixed that increase households demand for banking products. Secondly, banks act as paying agents because the most unofficial source is used by household rather than the formal financial sector and offer banking products to unbanked households. Thirdly, the processing fee of the bank against remittances transactions could be a source of income. Fourthly, banks are provided with information related to the household income of recipient by processing remittance flows that could be used to extend credit (Demirgüç- Kunt et al., 2011; Opperman and Adjasi, 2019).

The literature displays the empirical linkage of international remittances with the financial sector development that is still evolving. Remittances encourage financial sector growth through the formal channel (Nyamongo and Misati, 2011). On the other side, remittances relax the household financial constraints that reduced the demand for credit (Giuliano and Ruiz-Arranz 2009). The literature is divided into two main categories; an indirect association which states that remittances and growth relationship is affected by a given level of financial development, and by checking the link between remittances and financial intermediation by considering the impact on financial deepening and widening. The study of Opperman and Adjasi (2019) uses two-step GMM estimator to evaluate the migrant remittances effect, migrant remittances volatility on financial development and concluded that remittances and volatility in remittances affect efficiency and banking sector depth in African countries. The results of the study of Williams (2016) also in support of the above study by showing the positive linkage of remittances with financial development in 45 African economies by employing dynamic panel estimator for the period 1970-2013.

Similarly, the study of Aggarwal et al. (2011) proved the positive influence of remittances on financial development in 109 under-developed countries. The study of Chowdhury (2011) contributed in literature through finding the same result in case of Bangladesh. In contrast, Brown et al. (2013) showed the negative influence of migrant remittances on financial development by using the sample of 138 countries. Additionally, Motelle (2011) concluded in favour of no causal effect of remittances with financial development in Lesotho. However, nonlinear effect of one variable with other variable is common in current studies. For example, the study of Akhtar and Masih (2019) found the asymmetric effect of remittances on exchange rate by employing ARDL and nonlinear ARDL estimation over the period of 1976 to 2017 in Bangladesh. Similarly, Al mamun et al., (2016) employed ARDL and NARDL method and results concludes remittances affect labor productivity positively in Bangladesh over 1982-2013.

Furthermore, other factors also affect financial sector. Otchere et al. (2015) found bidirectional causal relation of FDI with financial sector development in African economies. Similarly, the study of Azman-Saini et al. (2010) concluded that the affect of FDI remained positive on economics growth after a threshold level of financial development. Similarly, extensive studies are existing that shows the positive association of FDI on macroeconomic indicators including financial development (Anwar et al., 2016; Chaudhry et al., 2017; Makiela and Quattara, 2018; Sultanuzzaman et al., 2018; Aibai et al., 2019). The strong institutional quality is needed for the efficient operation of financial markets, and successful financial liberalization and overall reforms are necessary for the financial sector to improve remittances policies (Hansen 2012).

3. Methodology

The data source is World Development Indicators (WDI) and study covers the period from 1976 to 2018 for Pakistan. This study used financial development as dependent variable and Broad money (BM) is used to measure financial development. The study uses other variables as control variables like, Inflation rate, FDI and gross domestic product.

The literature shows different cointegration techniques are applied to test the relationship of migrant remittances with financial development. The study uses linear ARDL and nonlinear ARDL method to achieve the study objective. This methodology have additional advantages over traditional cointegration techniques such as; Firstly, it is independent of the same compulsion order of integration as it can be applied if variable are I(1) or mixture I(0) and I(1) order; no variable should be on I(2). Secondly, this methodology expresses simultaneously short term and long term components that eliminate endogeneity of variables and serial correlation (Pesaran and Shin 1999). Thirdly, this methodology is appropriate even with a small sample size (Narayan and Narayan 2005).

The following specification is adopted to achieve our objective:
\[ FD_t = \alpha_0 + \alpha_1 \text{REMIT}_t + \alpha_2 \text{FDI}_t + \alpha_3 \text{INFL}_t + \alpha_4 \text{GDP}_t + \mu_t \] (1)

Where FD, REMIT, FDI, INFL and GDP shows financial development, migrant remittances, foreign direct investment, inflation rate and gross domestic product, respectively. Moreover, \( \alpha = (\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4) \) shows long-run parameters estimates.

We can write equation (1) in an ARDL framework that is shown in Shin et al. (2011).

\[
\begin{align*}
\Delta FD_t &= \alpha_0 \sum_{i=1}^{n_1} a_{1i} \Delta FD_{t-i} + \sum_{i=0}^{n_2} a_{2i} \Delta \text{REMIT}_{t-i} + \sum_{i=0}^{n_3} a_{3i} \Delta \text{FDI}_{t-i} + \sum_{i=0}^{n_4} a_{4i} \Delta \text{INFL}_{t-i} + \sum_{i=0}^{n_5} a_{5i} \Delta \text{GDP}_{t-i} \\
&+ \beta_1 FD_{t-1} + \beta_2 \text{REMIT}_{t-1} + \beta_3 \text{FDI}_{t-1} + \beta_4 \text{INFL}_{t-1} + \beta_5 \text{GDP}_{t-1} + \mu_t
\end{align*}
\] (2)

For the asymmetric relationship, non-linear ARDL model is applied that decompose partial sum of remittances positive and negative changes to shows the asymmetric effect (Shin, Yu, and Greenwood-Nimmo 2014). So, following equation presents the asymmetric co-integration:

\[
\text{FD}_t - \beta^- \text{REMIT}_t + \beta^+ \text{REMIT}'_t + \mu_t
\] (3)

Where FD is financial development is the dependent variable, \text{REMIT}, and \text{REMIT}' are the partial sum process of remittances changes (negative and positive) and \( \mu_t \) shows the error term. And \( \beta^- \) and \( \beta^+ \) represents the long-run parameters of \text{REMIT} and \text{REMIT}'.

Further, the following equation shows the partial sum of changes in remittances (positive and negative):

\[
\text{REMIT}_t = \sum_{j=1}^{\Delta} \text{REMIT}'_j = \sum_{j=1}^{\Delta \text{max} (\text{REMIT}',0)} (4)
\]

\[
\text{REMIT}'_t = \sum_{j=1}^{\Delta} \text{REMIT}'_j = \sum_{j=1}^{\Delta \text{max} (\text{REMIT}',0)} (5)
\]

The formulation of nonlinear ARDL will completed after supplanting REMIT+ and REMIT- in place of REMIT in equation (2):

\[
\begin{align*}
\Delta FD_t &= \alpha_0 \sum_{i=1}^{n_1} a_{1i} \Delta FD_{t-i} + \sum_{i=0}^{n_2} a_{2i} \Delta \text{REMIT}'_{t-i} + \sum_{i=0}^{n_3} a_{3i} \Delta \text{FDI}_{t-i} + \sum_{i=0}^{n_4} a_{4i} \Delta \text{INFL}_{t-i} + \sum_{i=0}^{n_5} a_{5i} \Delta \text{GDP}_{t-i} \\
&+ \beta_1 FD_{t-1} + \beta_2 \text{REMIT}'_{t-1} + \beta_3 \text{REMIT}''_{t-1} + \beta_4 \text{FDI}_{t-1} + \beta_5 \text{INFL}_{t-1} + \beta_6 \text{GDP}_{t-1} + \mu_t
\end{align*}
\] (6)

4. Results and Discussion
For checking the unit root, the Augmented Dickey Fuller (ADF) and Phillips Perron (PP) tests are used. The findings are shown in Table 4.1. The result of the ADF and Phillips Perron test confirms that the financial development, remittances, FDI, GDP and INFL are non-stationary at the level and all variables become stationary at first difference.

Table 4.1: Results of Unit Root Tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level ADF</th>
<th>Level PP</th>
<th>First Difference ADF</th>
<th>First Difference PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD</td>
<td>-1.14</td>
<td>-1.02</td>
<td>-5.55***</td>
<td>-6.78***</td>
</tr>
<tr>
<td>REMIT</td>
<td>-1.56</td>
<td>-1.87</td>
<td>-6.14***</td>
<td>-6.19***</td>
</tr>
<tr>
<td>FDI</td>
<td>-2.91</td>
<td>-1.96</td>
<td>-4.33***</td>
<td>-4.29***</td>
</tr>
</tbody>
</table>
A cointegration test is performed for linear specifications, and the results are shown in Table 4.2. The computed value of F-statistic is 4.967 which is clearly higher than higher bounds that show the long-run linear association of financial development with others variables like, migrant remittances, inflation, GDP and foreign direct investment.

### Table 4.2: Linear ARDL Bound Test Result

<table>
<thead>
<tr>
<th></th>
<th>10%</th>
<th>5%</th>
<th>1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowe bound I(0)</td>
<td>2.45</td>
<td>2.86</td>
<td>3.74</td>
</tr>
<tr>
<td>Upper bound I(1)</td>
<td>3.52</td>
<td>4.01</td>
<td>5.06</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>4.967</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Before going to estimate the long-run model and making inferences, there is need to pass some diagnostic tests. The value of R2 is about 0.93 which explained the variation in the financial development concerning the regressor. To check the autocorrelation in the residual LM test is conducted, and the result shows the absence of autocorrelation. Moreover, Jarque-Bera and Ramsey RESET tests show the normality and well specification of the model. CUSUM and CUSUM of squares tests used for model stability. Moreover, descriptive statistics show the overall picture of the data and the correlation matrix of variables presented in the appendices.

The primary focus of this empirical study is to check the remittances influence on financial development, so let us start with cointegration and long run forms equations that is based on table 4.3. The results explains migrant remittances show significant effect on financial sector development with positive sign. In simple, findings explains that a 1% increase in remittances inflow increase financial development by 0.60%, 0.50% in long run and short run, respectively. The findings also concludes FDI and GDP show positive linkage with financial sector development both in long run and short run. However, these control variables are essential to include in the study for better analysis of dynamics and garner valid inference of the above variable relationship. The findings are in agreement with the studies that showed positive linkage of remittances with financial development (Chowdhury, 2011; William, 2016; Opperman and Adjasi, 2019).

### Table 4.3: Linear ARDL Long run/Shor-run Estimation and Diagnostic Checks

<table>
<thead>
<tr>
<th>Regressors</th>
<th>Coefficients</th>
<th>Standard error</th>
<th>t-ratio (Prob.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMIT</td>
<td>0.600</td>
<td>0.170</td>
<td>3.522**(0.001)</td>
</tr>
<tr>
<td>FDI</td>
<td>3.317</td>
<td>0.652</td>
<td>5.087**(0.000)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.071</td>
<td>0.006</td>
<td>11.172**(0.000)</td>
</tr>
<tr>
<td>INFL</td>
<td>0.082</td>
<td>0.119</td>
<td>0.696(0.492)</td>
</tr>
<tr>
<td>Intercept</td>
<td>31.119</td>
<td>1.549</td>
<td>20.082**(0.000)</td>
</tr>
</tbody>
</table>

| D(FD(-1))  | 0.378        | 0.125          | 3.009**(0.005)  |
| D(REMIT)   | 0.5000       | 0.144          | 3.475**(0.001)  |
| D(FDI)     | 2.762        | 0.510          | 5.412**(0.000)  |
| D(GDP)     | 0.059        | 0.012          | 5.097**(0.000)  |
| D(INFL)    | -0.219       | 0.112          | -1.959*(0.059)  |
Now turning to results of nonlinear autoregressive distributed lag model, a cointegration test is performed for nonlinear specifications, and the results are shown in following table. The computed value of F-statistic is 4.26 which is higher than upper bounds that show financial development and others variables like, migrant remittances, inflation, GDP and foreign direct investment cointegrated in long run.

**Table 4.4: NARDL Bound Test for Cointegration**

<table>
<thead>
<tr>
<th></th>
<th>10%</th>
<th>5%</th>
<th>1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowe bound I(0)</td>
<td>2.26</td>
<td>2.62</td>
<td>3.41</td>
</tr>
<tr>
<td>Upper bound I(1)</td>
<td>3.35</td>
<td>3.79</td>
<td>4.68</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>4.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The estimated results of NARDL model presented in the following table 4.5. The long run and short run results revealed that the effect of negative changes in remittances on financial development is positive and significant at 1%, while positive changes in remittances show insignificant effect. In simple words, a 1% decrease in remittances will lead to 62%, 54% decrease in financial development. In addition, the coefficients FDI and GDP are significant with positive sign in long run and short run. The value of R2 is about 0.94 which explained the variation in the financial development concerning the regressors. To check the autocorrelation in the residual LM test is conducted, and the result shows the absence of autocorrelation. Moreover, Jarque-Bera and Ramsey RESET tests show the error tends to follow the normal distribution and correct specification of the model. The results also support the long run and short run asymmetry.

**Table 4.5: Nonlinear ARDL Long run/Shor-run Estimation and Diagnostic Checks**

<table>
<thead>
<tr>
<th>Regressors</th>
<th>Coefficients</th>
<th>Standard error</th>
<th>t-ratio (Prob.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long -Run Coefficients</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REMIT_POS</td>
<td>0.246</td>
<td>0.357</td>
<td>0.690(0.495)</td>
</tr>
<tr>
<td>REMIT_NEG</td>
<td>0.623</td>
<td>0.166</td>
<td>3.756*** (0.001)</td>
</tr>
<tr>
<td>FDI</td>
<td>3.308</td>
<td>0.625</td>
<td>5.288*** (0.000)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.093</td>
<td>0.021</td>
<td>4.392*** (0.000)</td>
</tr>
<tr>
<td>INFL</td>
<td>0.082</td>
<td>0.114</td>
<td>0.713 (0.482)</td>
</tr>
<tr>
<td>Intercept</td>
<td>34.359</td>
<td>1.788</td>
<td>19.207*** (0.000)</td>
</tr>
<tr>
<td><strong>Shor-Run Coefficients</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D(FD(-1))</td>
<td>0.390</td>
<td>0.126</td>
<td>3.104*** (0.004)</td>
</tr>
<tr>
<td>D(REMIT_POS)</td>
<td>0.213</td>
<td>0.304</td>
<td>0.699 (0.489)</td>
</tr>
<tr>
<td>D(REMIT_NEG)</td>
<td>0.539</td>
<td>0.148</td>
<td>3.638*** (0.001)</td>
</tr>
<tr>
<td>D(FDI)</td>
<td>2.863</td>
<td>0.518</td>
<td>5.527*** (0.000)</td>
</tr>
</tbody>
</table>

Note: ***, **, * shows significance level at 1%, 5% and 10% ; the values in ( ) are p-values.
D(GDP)  0.081  0.023  3.449***(0.002)  
D(INFL) -0.220  0.112  -1.964*(0.05)  
D(INFL(-1)) -0.229  0.097  -2.371**(0.024)  
ECT    -0.865  0.136  -6.358****(0.000)  

**Note:** ***, **, * shows significance level at 1%, 5% and 10% ; the values in ( ) are p-values.

To assess the stability of the parameters ARDL model is insufficient, so study applied the CUSUM and the CUSUM of squares in figure 1 and figure 2 respectively that shows the stability of the parameters.

**Figure. 1 CUSUM Test.**

**Figure. 2 CUSUM of Square Test.**

4. Concluding Remarks and Policy Implications
This paper rigorously explores remittances link with financial development. The study employed the linear ARDL and NARDL model for the period of 1976-2018 to achieve this objective in Pakistan. The linear ARDL result shows that migrant remittances significantly influence financial development. Specifically, the financial development leads to increase 0.50, 0.60 per cent as one per cent increase in the inflows of remittances increases in the short-run and the long-run, respectively. The other variables like FDI and GDP positively linked with financial development and while inflation have negative sign. The long run results of NARDL, the financial development effect of negative changes in remittances shows to be positive and significant at 1%, while positive changes in remittances appears to be insignificant. In simple words, a 1% decrease in remittances will lead to 62% decrease in financial development. This recommends the plan for the policymakers of recipient countries especially Pakistan, could harvest the potential gain of migrant remittances though it has positive association with financial development.

References


### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>FD</th>
<th>REMIT</th>
<th>GDP</th>
<th>INFL</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>46.31332</td>
<td>5.214781</td>
<td>117.4894</td>
<td>8.070025</td>
<td>0.856340</td>
</tr>
<tr>
<td>Median</td>
<td>45.31106</td>
<td>5.021795</td>
<td>106.0658</td>
<td>7.692156</td>
<td>0.620823</td>
</tr>
<tr>
<td>Maximum</td>
<td>58.86769</td>
<td>10.24763</td>
<td>253.9353</td>
<td>20.28612</td>
<td>3.668323</td>
</tr>
<tr>
<td>Minimum</td>
<td>37.83940</td>
<td>1.453638</td>
<td>33.81353</td>
<td>2.529328</td>
<td>0.061630</td>
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<td>Std. Dev.</td>
<td>6.206424</td>
<td>2.212975</td>
<td>61.95885</td>
<td>3.705305</td>
<td>0.799127</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.482692</td>
<td>0.105764</td>
<td>0.493772</td>
<td>0.777461</td>
<td>2.128949</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.079921</td>
<td>2.126129</td>
<td>2.188268</td>
<td>3.960552</td>
<td>7.336815</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>3.186502</td>
<td>1.448375</td>
<td>2.927857</td>
<td>5.984961</td>
<td>66.17997</td>
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<tr>
<td>Probability</td>
<td>0.203264</td>
<td>0.484718</td>
<td>0.231326</td>
<td>0.050163</td>
<td>0.000000</td>
</tr>
<tr>
<td>Sum</td>
<td>1991.473</td>
<td>224.2356</td>
<td>5052.046</td>
<td>347.0111</td>
<td>36.82263</td>
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<tr>
<td>Sum Sq. Dev.</td>
<td>1617.827</td>
<td>205.6849</td>
<td>161233.8</td>
<td>576.6299</td>
<td>26.82136</td>
</tr>
<tr>
<td>Observations</td>
<td>43</td>
<td>43</td>
<td>43</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>

### Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>FD</th>
<th>REMIT</th>
<th>GDP</th>
<th>INFL</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REMIT</td>
<td>0.0155</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.878</td>
<td>-0.079</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFL</td>
<td>0.034</td>
<td>-0.164</td>
<td>-0.055</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>0.639</td>
<td>-0.366</td>
<td>0.442</td>
<td>0.336</td>
<td>1</td>
</tr>
</tbody>
</table>
What Hinders to Promote Tourism in Pakistan? Using Binary Matrices for Structuring the Issue

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ARTICLE DETAILS

ABSTRACT

Aim of the study is to identify what are the barriers in promoting tourism in Pakistan and imposing structure on complex interrelationships among these barriers. It is an exploratory study which uses literature discourse for identification of barriers, binary matrices for structuring issue and cross impact matrix multiplication applied to classification for analyzing driving-dependence power. Discourse of literature revealed that there are sixteen barriers important to address the issue in hand. Communication barrier and unfavorable government policies occupy bottom in the interpretive structural model that are highly important and need utmost attention. Eight barriers fall in dependent, four in independent, three in linkage and none in autonomous quadrant of driving-dependence diagram. The study is useful for policy makers and tourists’ agencies to handle current issues prevailing in tourism industry and promote it accordingly. It is a foremost attempt in Pakistan to structure the issue on the basis of opinion of experts from within stakeholders.

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1. Introduction

Meo et al. (2018) bolstered that tourism is a sunshine sector across the world. It is considered as great economic support to economies. Numerous countries are minting money from tourism. United Nations World Tourism Organization (UNWTO) offers technical assistance and provides the platform to its affiliate members for dialogue, collaboration, information sharing and generating market knowledge & tourism development (Perdomo, 2016). Lyons et al. (2016) asserted that tourism is vital in knowledge economy, therefore, tourism scholars and tourism agencies are considered instrumental to modern economic development. This sector is important for employment creation and increase in national revenue as well as foreign exchange earnings and economic prosperity (Meo et al., 2018) but it is relatively neglected in Pakistan (Ahmed et al., 2011). God has endowed Pakistan with lot of natural resources that include four different seasons, variety of landscapes, mountains, minerals, etc. It is a rich country as for as recreational places is concerned. These places include natural beauty, historical heritage and psudu-naturally developed resorts that fascinate the tourists continually (Naqvi et al., 2018). Baloch and Rehman
(2015) stated that Pakistan is a fertile land in all type of tourisms for tourists which needs to be tapped with: i) tourists-friendly visa policies, ii) better infrastructure, and iii) reposition strategy of cultural and religious sites for South Asian market. Therefore, there is a lot of scope of tourism in Pakistan. The recreational places aforementioned are attractive for local as well as international tourists. But, unfortunately, Pakistan has not been able to exploit the tourism to an optimum level (Ahmed et al., 2011). Lot of research has surpassed on this topic world-wide (Meo et al., 2018) but relatively less studies have been conducted in Pakistan and that too are nascent and scanty. Few of them are being placed on record in literature to set out the outset of this study. Particularly, there is dearth of studies investigating tourism from view point of hindrances/obstacles and/or barriers in context of Pakistan. Therefore, it has become imperative to investigate the barriers in promoting tourism. Keeping in view the utmost importance of the phenomenon and barriers pertaining the phenomenon, it has become call of the day to structure this issue. Following are the objective of this study:

- To elicit and rank the barriers to promote tourism in Pakistan,
- To ascertain interactions among them,
- To impose hierarchy on them and to develop a structural model,
- To deliberate on its managerial implications and
- To analyze driving-dependence power of barriers for further insight.

This study uses literature review method i.e. empirical evidence from single-single studies coupled with expert opinion/focus group for eliciting the barriers. Whereas, ISM for hierarchicalization and MICMAC for driving-dependence power analysis of barriers. ISM/MICMAC is workable with as less as 5 elements (Sushil, 2017) and with as many as more than 80 elements (Li et al., 2019). Since, this study is based on 16 barriers which is an ideal range for ISM (Sushil, 2017) hence, it is the most suitable methodology. Therefore, remaining part of the study is divided into literature review, solution methodology, results & discussion and conclusion.

2. Survey of Literature of Tourism Barriers
Leung et al. (1996) carried out a study on tourism development in Cambodia on analysis of opportunities and barriers and provided insights about the barriers of obtaining information regarding tourists’ places. Andereck et al. (2005) conducted a study in USA, whereas, Aref et al. (2009) in Iran and both of them reported that lack of community knowledge and resources are major barriers in improvement of tourism sector. Sofield (2006) asserted that weedy political relations of sovereign countries have negative impact on tourists’ mobility in cross-border tourism development. Khadaroo and Seetanah (2008) claimed that poor transport infrastructure has significant impact on tourism development. Ahmed et al. (2011) affirmed that terrorism adversely affects tourism activities in Pakistan. Heung et al. (2011) reported five key barriers important to be rectified for development of tourism in Hong Kong. Salazar (2012) asserted that weak cultural integrity and harmony for local community to interact with tourists hampers the growth of tourism. Chen et al. (2014) bolstered that China is facing predicaments in tourism at two different levels i.e. socio-cultural & environmental and economic. Matasci et al. (2014) found social and economic feasibility barriers are significant in climate change adjustment process. Meihami and Karami (2014) argued that lack of investment in tourism sectors hinders promoting tourism. Najda-Janoszka and Kopaera (2014) highlighted environmental and organizational factors that hinder innovation capability of tourism in Poland. Taleghani et al. (2014) documented organizational coordination problem as a main obstacle in tourism development of Iran. Ismagilova et al. (2015) argued that poor preservation of historical places adversely affects country’s economic and social development. Hatipoglu et al. (2016) findings revealed that lack of financial focus, narrow vision and lack of organizational structure for effective cooperation hinder in successful planning of sustainable tourism in Turkey. Andrades & Dimanche (2017) asserted that there are numerous barriers in promoting tourism in Russia like lack of infrastructure development, sustainable quality management and employees’ education & training issues. Weir (2017) argued that consistent problem of climate change has adverse impact on tourism and travel industry. Alghizzawi et al.
(2018) identified that lack of use of social media is also one of the adversative barriers in promoting tourism. Chin et al. (2018) asserted that duration of winter period also becomes barrier in promoting seasonal tourism. Mair et al. (2018) asserted that less support to foreigners particularly in the contexts of conferences is a common barrier to promote tourism. Momeni et al. (2018) identified seven major barriers (i.e. marketing, international issues, culture, transfer, brokerage, management, and policy problems) that hamper in improvement of tourism industry. Okafor et al. (2018) asserted that common unofficial language is the most important factors for mobility of international tourists in Europe. Paraskevas and Brookes (2018) conducted a study on trafficking human being and considered it as one of snags within tourism business and suggested some guidelines to disrupt human trafficking. Tölkes (2018) emphasized on issue of green hoteling, environmental sustainability and communication in context of tourism. Yadav et al. (2018) holds that insufficient government incentives and lack of stakeholders’ coordination responsible of failure of sustainable tourism development in India. Arenas et al. (2019) asserted that traditional handling systems impede promotional activities of tourism. Damm et al. (2019) considered unsynchronized weathering system say higher interest in weather services (i.e. weather variability) than climate services as deterrent in promoting tourism. Jeon (2019) conducted a research study regarding barriers in developing self-efficacy in students, graduating in the discipline of tourism. Qian et al. (2019) pointed out scarcity of literature in certain area of tourism and emphasized on constant improvement on research in domain of tourism. Summers et al. (2019) uncovered five key barriers (i.e. lack of understanding of behavior, lack of financial resources, lack of understanding of structure, lack of collaboration and lack of human resources) and three major enablers that directly influence on economic and social-cultural growth. The list of barriers, based on the literature review, has been formulated as Table 1.

Table 1: Final List of Barriers

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Barriers</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Terrorism</td>
<td>Ahmed et al., 2011</td>
</tr>
<tr>
<td>2</td>
<td>Less budget allocation</td>
<td>Okafor et al., 2018; Summers et al., 2019</td>
</tr>
<tr>
<td>3</td>
<td>Un-synchronized weathering</td>
<td>Damm et al., 2019</td>
</tr>
<tr>
<td>4</td>
<td>Government restrictions</td>
<td>Arenas et al., 2019</td>
</tr>
<tr>
<td>5</td>
<td>Failure to preserve historical places</td>
<td>Ismagilova et al., 2015</td>
</tr>
<tr>
<td>6</td>
<td>Inefficient system of transport</td>
<td>Khadaroo &amp; Seetanah, 2008</td>
</tr>
<tr>
<td>7</td>
<td>Communication barrier</td>
<td>Tölkes, 2018</td>
</tr>
<tr>
<td>8</td>
<td>Traditional (non-digital) system of booking</td>
<td>Arenas et al., 2019</td>
</tr>
<tr>
<td>9</td>
<td>Rigid local behavior</td>
<td>Najda-Janoszka &amp; Kopera, 2014</td>
</tr>
<tr>
<td>10</td>
<td>Limited use of social media</td>
<td>Alghizzawi et al., 2018</td>
</tr>
<tr>
<td>11</td>
<td>Lack of awareness of local community</td>
<td>Aref et al., 2009</td>
</tr>
<tr>
<td>12</td>
<td>Lack of research</td>
<td>Qian et al., 2019</td>
</tr>
<tr>
<td>13</td>
<td>Human trafficking</td>
<td>Paraskevas &amp; Brookes, 2018</td>
</tr>
<tr>
<td>14</td>
<td>International border issues</td>
<td>Sofield, 2006</td>
</tr>
<tr>
<td>15</td>
<td>Unfavorable Govt. policies</td>
<td>Arenas et al., 2019; Heung et al., 2011</td>
</tr>
<tr>
<td>16</td>
<td>Climate change</td>
<td>Chin et al., 2018; Matasci et al., 2014; Weir, 2017</td>
</tr>
<tr>
<td>17</td>
<td>Culture harmony</td>
<td>Salazar, 2012</td>
</tr>
<tr>
<td>18</td>
<td>Language barrier</td>
<td>Okafor et al., 2018</td>
</tr>
<tr>
<td>19</td>
<td>Lack of institutional structure</td>
<td>Hatipoglu et al., 2016</td>
</tr>
<tr>
<td>20</td>
<td>Lack of investments/funds</td>
<td>Meihami &amp; Karami, 2014</td>
</tr>
</tbody>
</table>

Total 20 barriers were identified through review of literature. However, the barriers are disorderly and unsystematically identified from literature that might not have relevant literal meaning and they might not necessarily be representative to the context of Pakistan. In order to embark on a study of tourism concerning Pakistan, it was imperative to first indorse relevance of barriers to the context of the study.
Common method of such type of endorsement is formal verification of variables from the experts. Therefore, to identify stakeholders and to determine a panel of experts has become an essence of the study. The researchers deliberated on the stakeholders and consider: government, local community, tourists, revenue department, local business community, transport industry, tourist’s guides, aviation industry, academia and hotel and food industry as major stakeholders. Representatives of these stakeholders have been recruited on the panel in order to strike true representativeness. In this context, a heterogeneous panel of 14 experts have been recruited. The list of barriers was presented to experts four highlighted grey in Table 1 could not attain majority, therefore, eliminated from further analysis.

3. Solution Methodology
The authors are recognizant of the fact that true benefits of research can only be reaped by using appropriate methodology. The methodological choices were considered and ISM was opted to embark on this study. ISM is applied in a wide variety of areas on this type of problems (Sushil, 2017; Warfield, 1973). It is a visible, well defined, graphical model representation using reachability and transitive inferences through matrix transformation. ISM is preferred over other statistical technique because most of them are unable to analyze multitude of interrelationships among variable of phenomenon which loses the opportunity of gaining thorough understanding of conundrum situations like tourism (Chidambaranathan et al., 2009). Therefore, this study uses literature discourse, ISM and MICMAC as research methodology. The data was collected from a heterogeneous panel of medium size experts on a matrix type questionnaire using i leads to j as type of relationship (Trigunarsyah & ParamiDewi, 2015). The research preferred exploratory paradigm of research and collection of data from panel of experts instead of statistical groups (Ranjbar et al., 2012). The process of selecting the experts is admittedly critical because quality prevails over the quantity (Shen et al., 2016). There are plenty of evidences regarding size of panel of experts e.g. 15-30 people for a homogeneous and 5-14 people for a heterogeneous (Khan & Khan, 2013). Since, the study uses heterogeneous panel therefore a panel size of 14 experts was opted. The panel was approached three times i.e. firstly, for approval of barriers, secondly, for opinion on paired relations among the barriers, and thirdly, for checking model’s logical, theoretical, conceptual and directional inconsistencies, if any. For eliciting data the researchers opted for one-on-one face-to-face in-depth interview on work places of experts (Li & Yang, 2014). There took three rounds on place to finalize the model i.e. discussion & piloting round, data elicitation round and model verification round. The decision of the experts regarding approval of factors, paired relations and that of model based on majority rule (Cai & Xia, 2018). The experts were recruited on panel on the basis of their relevant practical experience of not less than 10 years, theoretical knowledge, expert knowledge and their positions in authoritative organizations concerning tourism. The study applied classical procedure of ISM on the data and constructed a structural model. ISM proceeded step wise as asserted by Attri et al., 2013; Warfield, 1973.

3.1 Building ISM Model
Since, it has been revealed by the iterations that there are four underlined levels in which the barriers of tourism can be subdivided and hierarchicalized. Barriers namely 1, 2, 3, 4, 5, 6, 9 and 11 occupy top level of the model, barriers 8, 10, 13 and 14 occupy second level, barriers 12 and 16 occupy third level, whereas, 7 and 15 occupy fourth level. Using a software Edraw Max 9.4 a level wise model has been constructed as Figure 1. Level to level relations have been indicated according to norms of ISM whereas, the relations of the factors at levels have been mentioned by two-way arrows inferring from reachability matrix.
Figure 1: ISM Model

Model was presented to panel of experts for checking conceptual inconsistencies and modifications thereof. The experts reported some minor modifications that have been incorporated and the model was finalized. The model, in this way, has imposed hierarchy and direction on complex relations among barriers.

3.2 MICMAC Analysis

The study also used MICMAC as supplemental analysis to ISM. It is a structural analysis which classifies the factors into four different clusters namely, independent, dependent, linkage and autonomous (Godet, 1986). The MICMAC is a driving-dependence diagram (Figure 2) which has been constructed from final reachability matrix.

Figure 2: MICMAC Analysis
MICMAC analysis classifies the barriers into four clusters on continua of low-high (Figure 2). It has four quadrants (i.e., dependence power - x-axis and driving power - y-axis) from low to high. Out of sixteen barriers, there is no autonomous factor, five fall in independent, three in linkage and eight in dependent quadrant.

4. Results and Discussion
Tourism is one of the emerging sectors in developing economies. It has potential to cast material impact on revenue generation. Developing countries are now concerned about development of tourism and Pakistan is also in this queue. There is scanty and scarce literature on tourism as a whole and extinct in case of Pakistan. Due to utmost importance of tourism, the barriers pertaining this phenomenon have been investigated by using two unique structural methodologies i.e., ISM and MICMAC analysis. That provides understanding of complex interrelationships among barriers of developing tourism. Summarized results are presented as Table 2.

Table 2: Summary Results of Literature, MICMAC and ISM

<table>
<thead>
<tr>
<th>Result of Literature Review Ratified by Experts</th>
<th>MICMAC Analysis</th>
<th>ISM Results</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving</td>
<td>Dependence</td>
<td>Effectiveness</td>
<td>Cluster</td>
</tr>
<tr>
<td>1</td>
<td>Terrorism</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>Less budget allocation</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Un-synchronized weathering system</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Govt. restrictions</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Failure to preserve historical places</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Inefficient system of transport</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>Communication barrier</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Traditional (non-digital) system of booking</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Rigid local behavior</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>Limited use of social media</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Lack of awareness of local community</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>12</td>
<td>Lack of research</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Human trafficking</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>International border issues</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>15</td>
<td>Unfavorable Govt. policies</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Climate change</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

Results of ISM revealed that communication barrier (7) and unfavorable government policies (15) occupy bottom of the model and they are key barriers. Lack of research (12) and climate change (16) occupy third level (second important level) of model therefore, they are also vital. Traditional (non-digital) system of booking (8), limited use of social media (10), human trafficking (13) and international border issues (14) occupy second level relatively less important to third level having moderate lesser importance. Whereas, terrorism (1), less budget allocation (2), un-synchronized weathering system (3), government restrictions (4), failure to preserve historical places (5), inefficient system of transport (6), rigid local behavior (9) and lack of awareness of local community (11) occupy top of the model hence attain least priority. Objective of MICMAC is to identify key factors and to augment ISM by way further analysis of the results of ISM. The results are, therefore, presented cluster wise.

4.1 Autonomous
Those factors that have weak driving and weak dependence power, relatively separated from model but have some powerful links fall in this cluster. They don’t have much impact on system. In this study autonomous factors don’t and non-existence of autonomous factors means that all factors play important role in model.

4.2 Dependent
Those factors that have weak driving but strong dependence power fall in this cluster. The barriers listed at 1, 2, 3, 4, 5, 6, 9 and 11 have low driving and high dependence power therefore fall in dependent
cluster. They depend on others therefore need extra care. There are certain factors which have high dependence power but at the same time high driving power and may fall in linkage cluster.

4.3 Linkage

Those factors that have strong driving and strong dependence power fall in this cluster. They are unbalanced, agile and ambivalent and action on them may affect others and as a feedback effect on themselves. Existence of these factors in the model means that regulators might be struggling to make sense. The barriers listed at 8, 10 and 13 fall in linkage cluster.

Independent: Those factors that have high driving and low dependence power fall in this cluster. Some of them might have high dependence power as well and may fall in linkage as well. These are key factors high care is needed to handle them. Practitioners should therefore give priority to understand these factors. The barriers listed at 2, 7, 14, 15 and 16 have high driving but low dependence power therefore fall in independent. In nutshell: communication barrier (7) and unfavorable government policies (15) are key barriers because they occupy bottom of ISM model, have high driving, lowest dependence, high effectiveness and fall in independent cluster in terms of MICMAC. The results of both the structural methodologies coincide and experts also ratified the same as consistent, therefore, these two factors can be considered as vital key factors.

This study is different from contemporary studies in many dimensions. It uses unique and different methodology, whereas, contemporary studies mostly use factor analysis and other statistical analyses that give comparatively minimal insight to the issue. It is empirical field study based on very different set of variables and expert respondents of phenomena under study. It provides more deeper understanding and insight of the issue. This study has been conducted in Pakistan which itself has unique position within Asian countries and researchers could not find any such study on this topic. It is a seminal study on tourism sector. However, there are some studies conducted in different countries findings of this study are consistent with them in general Table 3.

Table 3: Comparison of results of the present study with prior studies in the literature

<table>
<thead>
<tr>
<th>Study</th>
<th>Focus</th>
<th>Country</th>
<th>Factors</th>
<th>Key Factors</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>In hand</td>
<td>Barriers in promoting tourism</td>
<td>Pakistan</td>
<td>16</td>
<td>Communication barrier and unfavorable government policies.</td>
<td>ISM</td>
</tr>
<tr>
<td>Ranjan Debata et al. (2013)</td>
<td>Enablers of medical tourism</td>
<td>India</td>
<td>12</td>
<td>National policy and top management commitment.</td>
<td>ISM</td>
</tr>
<tr>
<td>Firuzjaeyan et al. (2013)</td>
<td>Barriers in tourism development</td>
<td>Iran</td>
<td>12</td>
<td>Economic and political sanctions, lack of coordination, cultural &amp; religious restrictions for foreign tourists, lack of government support and encouragement of private sector investment.</td>
<td>ISM</td>
</tr>
<tr>
<td>Lee et al. (2015)</td>
<td>Marketing strategies for tourism</td>
<td>Taiwan</td>
<td>12</td>
<td>Consistency of environment, atmosphere &amp; brand, learning &amp; leisure activity, training &amp; management of staff and traffic accessibility.</td>
<td>ISM</td>
</tr>
<tr>
<td>Tseng et al. (2018)</td>
<td>Tourism development sustainability</td>
<td>Vietnam</td>
<td>24</td>
<td>Culture, diversity and decision synchronization.</td>
<td>ISM</td>
</tr>
</tbody>
</table>

5. Conclusion

This study has great value for stakeholders of business of tourism that wish to prioritize their efforts and resources to remove the most important barriers and challenges for successful policy implementation. There are lots of barriers in promoting tourism in developing countries like Pakistan. There is a severe need to unearth these barriers and understand the complex interrelations among barriers. This research study has addressed the issue in an innovative manner. It identified 20 barriers from literature presented it to the recruited panel of experts from within the stakeholders of tourism in Pakistan who declared 16 barriers as highly relevant and representative to the phenomenon under study. The research study used ISM and MICMAC as methodology for structuring and analyzing the issue. The results of the study show that there are 16 representative barriers, barrier 7 and 15 occupy bottom of the model, therefore, they are
key barriers. 12 and 16 occupy third level i.e. second important level, therefore, they are also vital; 8, 10, 13 and 14 occupy second level relatively less important to third level having moderate lesser importance; and 1, 2, 3, 4, 5, 6, 9 and 11 occupy top of model hence attain least priority. Results of MICMAC analysis show that: there is no autonomous barriers meaning thereby all factors are relevant and play vital role in the system; 1, 2, 3, 4, 5, 6, 9 and 11 are dependent on others therefore need extra care; 8, 10 and 13 are linking hence are unbalanced, agile & ambivalent and action on them may affect others and as a feedback effect on themselves; and 7, 12, 14, 15 and 16 are independent therefore high care is needed to handle them. Barrier 7 and 15 are key barriers according to both structural methodologies. This study contributes to existing theories of tourism. It contributed an ISM model (Figure 1) of representative barriers in promoting tourism towards literature that also states hierarchy and direction of relationships among barriers. It also has another significant contribution by way of driving-dependence diagram (Figure 2). It contributes lot of supplemental information to augment further qualitative and quantitative studies too. It divulges deeper understanding to researchers by way of hierarchical structure of barriers and paved the way for further researches. The study enables stakeholders to devise a detailed structure in order of importance in which barriers have to be dealt. The model is helpful to improve and understand the issue clearly. It has significant relevance to tour operators, tourists, governments as policy makers, researchers and practitioners. The study provides essential information to decision-makers for identifying the focal areas and taking due actions. There are certain limitations of study also. Firstly, since it is relatively less explored area and this study is first of its kind that uses qualitative approach therefore its findings have generalizability limited to the scope of study. Future studies may follow quantitative approaches with wider scope and may collect evidence from different geographical areas in order to enhance the frontiers of findings of this study. Secondly, key barriers have been identified through single method of literature discourse and there is possibility that some important barriers might have missed, therefore, it is recommended that future researches should use other methods to validate and augment the findings of this research. Thirdly, judgmental data has been collected from fewer stakeholders in Pakistan therefore future studies may take data from statistical groups.

References


The Impact of Financial Signaling and Information Asymmetries of Macroeconomic Covariates and Debt vs. Equity

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JEL Classification:
G10, G15, H63, H69

Present study investigates the existence of macroeconomic variables effect on capital structure and to evaluate the behavioral aspects of financial signaling and asymmetry of information on the non-financial sector of Pakistan. Extreme bounds analysis an econometric technique is used to analyze the robustness of financial signaling and information asymmetry covariates of macroeconomic factors on capital structure policies and to compute the empirical findings. The results conclude that interest rate is significantly influencing the decisions of the managers regarding to the composition of long run financing decisions. Hence it is identified that corporate non-financial sector has lesser signaling effect generated by the macroeconomic forces in financial decisions. However the null hypothesis cannot be rejected as this study identified. This study is meaningful and leads toward the practical version of financing decisions by the corporate sectors with the changing policies of the macroeconomic forces in Pakistan. There must be coherence between the macroeconomic policies and corporate sector policies, therefore information asymmetries may overcome.

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1. Introduction

The major concern of the financial managers of companies is to take capital structure decision to minimize the cost of capital. These decisions must be make in order to increase of the value of its assets, which may increase the wealth of shareholders. The theoretical underpinning of financial management is desired to optimize the capital structure by minimizing the cost of financing and to ultimately maximize the firm value.

The optimal capital structure has a significant impact on capital market behavior. There are various important factors that may have significant importance with reference to the relationship of the capital structure and the economic factors. However the major economic factors may have significant influence
on the strategic capital structure decisions. Most of theories are based on internal structure of the company which may base on stability and smoothness of economic factors and variables.

All theories of capital structure have significance importance to answer the questions regarding to tax saving combination of capital structure, minimize cost of capital. All these concepts and constructs of the theories are relevant to the internal factors of the company such as managerial factors, buy and sell decisions etc may be controlled by companies but the external factors of the companies are less considered but found significant in previous studies.

The changes in macroeconomic variables such as money supply, inflation rate, interest rate, exchange rate, gross domestic product, industrial production, reserves and accounting variables such as amount of dividend, short term debt ratio and long term debt ratio may have significant effect on capital structure and ultimately to financial resources. These financial resources are highly sensitive to the situations of economic.

The investor’s decision making will lead to market situations and represent to economy of the country. Thus we motivate to explore the impact of economic conditions on decisions and composition of financial resources among companies listed on KSE. The capital structure is extensive to provide answers to the aspects that affect the decisions against changing firm’s capital structure. However we cannot deny some important economic explanatory variables, which may play a significant role for corporate choices and decision making.

This study is contributing in the empirical literature of capital structure studies by deploying new methodology along with macroeconomic variables in the model for identification of financial signaling and market information asymmetries at the same state and to identify the robustness of factors together on capital structure decision in non-financial sector of Pakistan to overcome the gap in the previous researches.

2. Literature Review

The transitional and emerging countries require special focus to financial factors which support at level of economy. The asymmetric behavior in transitional economies is very high as compared to the developed market.

Modigliani and Miller (1958) established that trade off different tax and other financial benifits with debt against financial distress cost can be used to find optimal capital structure. Jensen and Meckling (1976) also described that financial distress cost, agency cost and bankruptcy cost can be used to establish trade of theory. This will create the equilibrium between advantages - tax cost and disadvantages - bankruptcy cost and financial distress to choice the capital structure.

Gertler and Hubbard (1993) documented that equity finance reduces the spread that firms insulate against aggregate risks due to tax bias. This can proceeded the prediction regarding dividends may varied with macroeconomic conditions.

Harris et al. (1994) indicated that the financial liberalization and reforms have an impact on investment decisions and credit allocation. The effect may differ due to change in type of firms. The results showed that shift in administrative to market dependent credit allocation stay increased borrowing costs of small firms particularly. This should be beneficial at the same time to provide widened access to finance.

Lamont (1995) explained a model of corporate debt overhang can be used to create multiple equilibriums in which economic activity may determined by expectations. Corporate financial structure has impact on macroeconomic performance by debt overhang when debtors make new investments. In conclusion the debt can create multiple expectation equilibrium and economic activity.
Kochhar (1997) explained that the management of the company decides about financing decision to reach the optimal market value of stocks. The maximization of shareholders value is possible by optimal maximum efficiency and selecting appropriate risk for the company. Michaelas et al. (1999) presented that capital structure is time and industry dependent. The changes in economic growth pattern have positive relationship with long term debt. Harris and Raviv (2002) described that reduction in cost of financing can enhance the market price of the share.

Ju and Ou-Yang (2006) developed that the interest rate in long run is the key determinant of optimal capital structure and debt maturity. Kohher (2007) explored highest market value is used for financial resources to obtain optimal level of maximum efficiency at selected appropriate level of risk of the company. There are various theories of optimal capital structure to find the basic truth about the optimal capital structure or not and cost of capital.

Niu (2008) doing theoretical and practical preview of capital structure and its determinants, firstly drew attention towards different theories of capital structure and then suggested seven different determinant factors from practical aspect i.e. a negative linkage of leverage with growth opportunities, liquidity and volatility and both positive and negative relationship with Profitability and Tax.

Bokpin (2009) proposed a study model on macroeconomic development and capital structure decisions. The Gross domestic product (GDP) per capita and choice of capital structure have negative significant relationship. Inflation has positive significant impact on choice of short term debt and equity. The stock market development has insignificant impact on choice of capital structure. The control variables – asset tangibility, return on equity (ROE), return on asset (ROA) and Tobin’s Q are the significant predictors of corporate financial structure.

Chadegani et al (2011) investigated the effects economic and accounting variables on capital structure of listed companies initial data between 2001-2008 of Tehran Stock Exchange are used multivariate regression model seemingly unrelated regression equations. The results represents the positive relationship between exchange rate, dividend, long term debt ratio, short term debt ratio and bank credit and negative relationship between inflation, interest rate and GDP with capital structure in TSE.

Doukas et al (2011) found that a perceived capital market may favorable. The indication of market timing and cost of equity adverse selection – Asymmetry of information are important frictions. This can lead to issue more debt in hot – debt market period than cold-debt market periods. It is described that the firms with equity adverse selection of more (less) debt where market conditions considered as hot (cold). The evidence provided that the hot-debt market effect on the capital structure. The issuance in hot debt market may not rebalance actively to leverage to stay within the range of choice optimal capital structure.

Artikis and Nifora (2012) investigated that the market risk premium, the size, and the momentum idiosyncratic factors had a statistically significant positive relationship with equity returns. The leverage and value risk factors had a statistically significant negative relationship with equity returns. The leverage is priced as a risk factor by constructing a leverage factor contains significant information content. It has a smaller magnitude but still considerable portion as compared to the size and value risk factors.

Lemma and Negash (2013) indicated that the economy growth rate and inflation influenced the choice of capital structure. This signified the role of the probability of bankruptcy, transaction cost, agency cost, tax and asymmetry of information’s, finance to access and timing of the market associated in decisions of the capital structure of firms.

Matemilola et al (2013) described unobservable firm’s specific effects i.e. marginal skills and marginal ability. The mis-specification may occur due to firm specific factors i.e. marginal skills and marginal
ability. These factors have significant relationship with capital structure decisions. The low level of debt advised to manager to increase in debt level.

Ahmad and Abdullah (2013) investigated optimal level of debt to maximize the value of the firms. The results estimators reflect the single threshold of debt ratio level 64.33 percent impacts on firm’s value. The addition in debt beyond the threshold may not increase in value of the firms. More level of debt could proceed to a debt overhang and insolvency to microeconomic level of the firms. This might be cause vulnerability in financial system of the firms. It should lead to financial catastrophes.

3. Theoretical Framework
3.1 Theories of Financial Signaling and Asymmetric Information
The information asymmetry which is basically resolved through the best decision making of management. The decision of debt and equity reflects change the behavior of the investors and creditors which leads to signals in market. The confidence and trust is based on favorable signals due to market value excellence and lack due to unfavorable signals and asymmetry of information. Fama and French (1988) was not agreed to the notion that the more profits of firms no need more debt. The more debt may producer of poor signals. The interest charges and future development are being depended on earnings.

3.2 Agency Cost Theory (ACT)
The agent - managers and principals - owners may lead agency behavior due to financial signaling and asymmetries. This may be between shareholders and manages and shareholders and creditors. Jensen and Meckling (1976) described agency cost of monitoring expenditure by principal, bonding expenditures by the agents and residual loss.

3.3 Static Trade off Theory (TOT)
Myers (1984) indicated the static tradeoff theory (STT) to explain a firm used targeted debt to equity ratio. The benefit and cost associated with the selection of debt choices debt equity. The taxes, agency cost and cost of financial distress may lead to doubtful situation on achievement of target. The bankruptcy cost that may be raised due to financial distress.

Pecking Order Theory (Pot):
Myers and Majluf (1984) explored the pecking order theory (POT) to financial decisions of capital structure. The firms have a preference to finance through use of internal fund, i.e. retained earnings, external financing means a bank loan and then equity to finance. The reluctance to issue equity to avoid asymmetric information between manager and investor.

3.4 Signaling and Information Asymmetry Theory
Ross (1977) documented signaling and information asymmetry model to convey the information quality of the company to market due to selection of capital structure choice. The misalignment information of company returns between management and investor may lead unfavorable signals and information Asymmetry. Then management can have enjoyed more returns but are penalized in case of bankruptcy.

3.5 Transaction Cost Economics (TCE)
Williamson (1988) described the transaction cost economics approach concerned to debt which is more valuable due to excellent collateral of general assets and more liquidity. The liquidity and security may increase capacity to meet the payments of debt. Ronald (1937) documented transaction cost economics due to difference between market to buy and to make based on decision to use markets. Kochhar (1996) described debt concerned to buy and equity concerned to make.

3.6 Life Stage Theory
Frielinghaus, Mostret and Firer (2005) presented that the fundamental premise of life stage of organization and living in the organisms in a similar fashion. The firms can utilize more debt as to mature.
Bender and Ward (1993) showed that the choice of capital structure may be affected by life stage of firm. These are used to manage the business risk and to increase financial risk. Adizes (1979) resulted that life stage is used to describe the typical pattern of behavior. Adizes (1996) as the interrelationship of flexibility and control.

### 3.7 Market Timing Theory
Baker and Wurgler (2002) provided that the choices of capital structure are positively and strongly related to the timing of the market. The capital structure showed the cumulative effects to time the equity of old attempts. The stocks issued when the stock is overpriced and buy back when the stock underpriced. It argued that macroeconomic and accounting factors affect the capital structure of the firm. Frank and Goyal (2004) provided that there is no empirical sufficient support to validate this theory and unable to define the optimal capital structure.

### 4. Data and Methodology

#### 4.1 Data
The study is an attempt to identify the effect of financial signaling of macroeconomic variables on choice between financing decisions of debt vs. equity. This study is based upon the secondary financial data of firms from the period 2001 - 2018. The data of firm’s income statement and balance sheets is obtained from balance sheet analysis of joint stock companies listed on the Karachi stock exchange.

The Macroeconomic variables data is taken from International Financial Statistics which is published by IMF. This study has focused on the companies of five non-financial sectors that are listed on the Karachi Stock Exchange. A balanced panel data has been taken for analysis purposes.

Section -1: Macro asymmetric behavior, Theory /Hypothesis and Examples:

<table>
<thead>
<tr>
<th>Macrocosmic Covariates</th>
<th>Theory /Hypothesis</th>
<th>Literature justification of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money supply</td>
<td>Money supply cause to increase in the price levels of goods and services. Ultimately inflation that will reduce the purchasing power. It should increases the retained earnings to reduce the financial leverage or debt.</td>
<td>(Drobetz et al., 2007).</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>Inflation rate is the increasing levels of goods and services price to reduce the purchasing power. Inflation rate has influence on management decisions of financing to increases the retained earnings to reduce the financial leverage.</td>
<td>(Drobetz et al., 2007).</td>
</tr>
<tr>
<td>Interest rate</td>
<td>Increase in interest rate will cause increase in investor and creditors expected rates. Since financial managers are seeking to achieve the lowest cost sources of financing to increase in interest rates and cost of financing to eliminate this way of financing.</td>
<td>(Bokpin, 2009).</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>Exchange rate can be effective on the capital structure of those companies which use foreign funds. Increasing the exchange rate will lead to decrease in cash and increases interest expense and finally increases the debts ratio.</td>
<td>(Fanelli and Keifman, 2002).</td>
</tr>
</tbody>
</table>
The methodology is used to examine the effects of change of macroeconomic and accounting determinants in the debt vs. equity. The panel data studies of the determinants of debt vs. equity are typically based on regression equation

$$Y_{ct} = \alpha_t + \sum_{n=1}^{n} \beta_{nc} X_{ntc} + \epsilon_{ct}$$

Where $t = 1, \ldots, 10$ and $c$ = number of the firms in each group

The desired change in debt vs. equity is measured as $Y_{ct} = \Delta D/E = (D/E_t - D/E_{t-1})$

This study makes use of robust multiple regression analysis. The robust regression model is run over this kind of data. The robust regression model is as under

$$Y_{tk} = \alpha_t + \beta_1 \text{ Macroeconomic} + \epsilon_{ct}$$
Where

\[ Y_{tk} = \text{Debt vs. Equity} \]
\[ MS = \text{Money Supply} \]
\[ IF = \text{Inflation Rate} \]
\[ IR = \text{Interest Rate} \]
\[ ER = \text{Exchange Rate} \]
\[ IP = \text{Industrial Production} \]
\[ GDP = \text{Gross Domestic Product} \]
\[ \varepsilon_{ct} = \text{Error term} \]

\[ Y_{tk} = \alpha_t + \beta_1 (MS) + \beta_2 (IF) + \beta_3 (IR) + \beta_4 (ER) + \beta_5 (IP) + \beta_6 (RE) + \beta_7 (GDP) + \varepsilon_{ct} \]

This model is a base model considering the impact of seven time-varying financial covariate of macroeconomic determinants makes changes on the capital structure.

\[ Y_{tc} = \alpha_t + \sum_{f=1}^{n} \beta_{nc} (\text{Macroeconomic Financial covariates})_{ntc} + \varepsilon_{ct} \]

Where, for the model as defined above,

\[ Y_{ctk} = \text{Capital structure response for company c in year t (t =1,..,10).} \]
\[ FC_{nc} = \text{Time-varying macroeconomic financial covariate f (f =1,..,7) for company c in year t (t =1,..,10).} \]
\[ \beta = \text{Intercepts and slope coefficients for fixed effects (for which explicit individual estimates are produced)} \]
\[ \varepsilon_{ct} = \text{random error for company c in year t.} \]

It can be expressed in an expanded form as follows:

\[ Y_{ct} = \alpha_t + \beta_1 \text{ Macroeconomic} + \varepsilon_{ct} \]

\[ Y_{ctk} = \alpha_t + \beta_1 (\text{Money Supply}) + \beta_2 (\text{Inflation}) + \beta_3 (\text{Interest rate}) + \beta_4 (\text{Exchange rate}) + \beta_5 (\text{Industrial production}) + \beta_6 (\text{Reserves}) + \beta_7 (\text{Gross Domestic Product}) + \varepsilon_{ct} \]

\[ Y_{ctk} = \text{Capital structure response for company c in year t (t =1,.., 10).} \]
\[ \beta_1 \text{ to } \beta_7 = \text{Coefficients of fifteen time-varying macroeconomic financial covariates.} \]

Extreme Bounds Analysis Issues In Methodology:

It is an alternative of parameters of simple regression. The simple regression is an emerged Bayesian solution due to model mis-specification and biasness in choice of variable. The parameters in simple regression may not be best representative and interpreted one. The Leamer (1978, 1983, 1985) and Leamer & Herman (1983) developed Bayesian econometric technique - Extreme Bounds Analysis (EBA). Levine & Runlet (1992) and Levine & Zervos (1993) showed the usefulness of Extreme Bounds Analysis (EBA). The extreme bounds analysis has power of reporting and assessing sensitivity of the estimated results where change in specification of model.

Xaviar X.Sala-I-Martin (1996, 1997) argued that a particular variables coefficient of a growth regression is not pessimistic criteria. The coefficients density function is important to resolve this problem by option of coefficients robustness and fragility. There is no theoretical justification for a specific combination of variables. Moreover there may be some theoretical justification is available for specific countries or group of countries but it may not be valid to all countries. It may used to explain that this is poor goodness of fit of the particular model where we used cross – sectional data set. These large numbers of explanatory variables encountered through sensitivity analysis.
The extreme bounds analysis (EBA) is used for sensitivity analysis. This extreme bounds analysis (EBA) can be used to avoid the pitfall of selective reporting. This also proceeds by direct incorporation of prior information's and followed a systematic approach to test the fragility of the coefficient estimates. So, Leamer,s Extreme Bounds Analysis (EBA) helped to resolve the big phenomena of classical econometric i.e mis-specification of model and biased criteria of inclusion or exclusion of variables in study.

It is evident that growth regression of panal data is caused number of statical and theoretical problems. The basic problem is inclusion or exclusion of the variables in the particular regression construct. It is evident that different economies are unacceptable econometric biased fundamentally due to regression model design of panal data. Secondly, the problem of choice of single equation model or double equation model. Moreover, the parametres alerts where related variables included or excluded in regression construct. It is obvious that at factual required and desired variable is sensitive regarding to minor changes in the model. It is actually the matter of fact of great concern to ascertain that which value of parameter is reliable and valid for policy making.

The simple regression coefficients or parametres are objectionable ultimately economic research pursuits to policy making. In this regard, doubtfulness of fulfillment of ultimate aim, the research endeavoures become more reliable and valid for a futile activity. The modified approach of Extreme Bounds Analysis (EBA) searched the maximum and minimum bounds to estimate the upper and lower bounds from series of parameter or coefficients of M combination which is used to satisfied the condition for selection criteria of coefficients robustness. It is used to stat that coefficients must be statically significant at 5% level of significance and entailed that do not to reflect the opposite sign. The parametres at 50% of significance are used to obtain by incorporation of M variables combinations. The upper and lower bounds which are used to maintain identical in sign will inferred to result in robust otherwise fragile.

5. Results and Discussion:
5.1 Macro level Signaling and Asymmetric Covariates
The high exchange rate (ER) may lead to low in cash and high interest expense. Table 3 indicates that the exchange rate (ER) has negative insignificant relation to financing decisions (debt vs equity) which means reduction in debt to equity ratio. The managers required to establish the minimum cost sources to decrease in debt. The negative significant relation of interest rate (IR) means reduction in debt vs. equity.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>-5.43221</td>
<td>-1.54</td>
</tr>
<tr>
<td>INF</td>
<td>4.61453</td>
<td>1.46</td>
</tr>
<tr>
<td>IR</td>
<td>-0.29614</td>
<td>-2.63**</td>
</tr>
<tr>
<td>ER</td>
<td>-3.69121</td>
<td>-1.52</td>
</tr>
<tr>
<td>IP</td>
<td>0.82421</td>
<td>0.95</td>
</tr>
<tr>
<td>RE</td>
<td>-2.43216</td>
<td>-1.58</td>
</tr>
<tr>
<td>GDP</td>
<td>-5.23752</td>
<td>-1.49</td>
</tr>
</tbody>
</table>

*** Significant at 1% level,
** Significant at 5% level
* Significant at 10% level

The interest rate does not support the tax shield benefit due to negative impact with debt vs. equity. The financial managers also feel threat of bankruptcy. The bankruptcy supports the transaction cost, asymmetric information and agency assumption due to the negative impact of interest rate. The high
interest rate will increase the investor expected rate of return. The industrial production (IP) improved strength of cash flows and earnings to make reduction in debt. Industrial production (IP) has positive insignificant impact on debt vs. equity. It is used to lead more debt. The cash flows of the company can be strengthened by increase in Gross Domestic Product (GDP) and reserves (RE). The Gross Domestic Product (GDP) and reserves (RE) has negative insignificant impact on debt vs. equity. The result of sensitivity is reflected in the Table 4. The results showed the range values of parameters of variables of interest. The βmax and βmin are used in respect to significance level in percentage at 5% level of significance. These maximum and minimum bounds can be required to measure signaling sensitivity of the debt vs. equity (DE) and macro variables. The fragility and robustness indicates the extent of signaling and change in debt vs. equity in the reported variables. The results represent the negative insignificance relationship of inflation (INF), interest rate (IR) , exchange rate (ER), reserve (RE) and gross domestic product (GDP) have fragile relationship and no sensitivity to debt vs. equity.

**Table: 4 EBA of the Coefficients Sensitivity: Modified Approach**

<table>
<thead>
<tr>
<th>Variables</th>
<th>β base</th>
<th>β max</th>
<th>β min</th>
<th>Sign β,s (%)</th>
<th>EBA Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>-0.117</td>
<td>0.000</td>
<td>-0.117</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>INF</td>
<td>0.053</td>
<td>0.069</td>
<td>0.053</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>IR</td>
<td>-0.007</td>
<td>0.000</td>
<td>-0.007</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>ER</td>
<td>0.049</td>
<td>0.000</td>
<td>0.049</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>IP</td>
<td>0.009</td>
<td>0.000</td>
<td>0.009</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>RE</td>
<td>-0.007</td>
<td>0.000</td>
<td>-0.007</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>GDP</td>
<td>0.113</td>
<td>0.118</td>
<td>0.103</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td><strong>Robust Relationships in the Group</strong></td>
<td></td>
<td></td>
<td></td>
<td>0%</td>
<td><strong>Globally Robust</strong></td>
</tr>
</tbody>
</table>

The results presented in Table 5 also showed the range values of β upper bound and β lower bound of variables of interest with respect to level of significance at 5%. The results also represent the negative insignificant relationship of inflation (INF), interest rate (IR) , exchange rate (ER), reserve (RE) and gross domestic product (GDP) are fragile variables.

**Table: 5 EBA of the Coefficients Sensitivity: Leamer Approach**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean μ</th>
<th>Upper bound (μ+2s)</th>
<th>Lower bound (μ-2s)</th>
<th>Cases Sign. at 5%</th>
<th>Leamer EBA Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>INF</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>IR</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>ER</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>IP</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
<tr>
<td>RE</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0%</td>
<td>Fragile</td>
</tr>
</tbody>
</table>
Mahalanobis distance is used for trimming which is meant for exclusion of the outliers. The results also represent the negative robust and signaling relationship of variables. The interest rate sensitivity is more as presented in table 6 and table 7 respectively. The Money supply (MS), inflation (INF), exchange rate (ER), industrial production (IP), Reserve (RE) and GDP have negative insignificant signaling relation to debt vs. equity.
The negative significant relation of interest rate (IR) is used to make decrease in debt vs. equity. Industrial production (IP), reserve (RE) and GDP improved strength of cash flows and earnings to make reduction in debt. Industrial production (IP), reserve (RE) and GDP has negative insignificant with debt vs. equity. Hypothesis hence proved due to significant negative relation of interest rate (IR). It is used to decrease in debt vs. equity due to high agency cost and also consistent with the objective. The interest rate (IR) has 73.3% robust and sensitive relationship to debt vs. equity.

6. Conclusion
This study finally concluded that all theories of capital structure identified that financial signaling and asymmetries of information changed the behavior of investors and lenders in a perspective where borrowing signals provides a positive impact and equity financing generates negative signals to the stock market investors but still there is a need to realize this impact that must have an index of capital structure based upon industrial average and the return anomaly or we may can visualize the impact of financial signals and change in capital structure parameters by analyzing cross section of various industry of non-financial sector that either the movement of capital from one industrial sector to another appealing industrial sector have caused an increase the return or not.

The study concluded that financial signaling and information asymmetries of macroeconomic variables indicate that interest rate (IR) has the most significant negative impact which cause to an increase in debt vs. equity and after while decrease in interest rate (IR). The financial managers should require achieving the lowest cost sources and reduction in debt composition. The economic and financial policy makers should definitely consider the impact of macroeconomic factors on financing to facilitate the non financial sector in Pakistan in a more dynamic way.

The debt vs. equity is the main concern among contributing factors as shown in the financial crises history. The borrowing of money is utilized for investment and industrial production. The failing in investment and industrial production should be the main reason of bankruptcy. The degree of bankruptcy is mostly used to increase the financial crises. The real and growth oriented utilization of borrowing of money for investments can better handle the financial crises. This asymmetry of information affects the psychology and perception of investor in decision of investments. The imperfections can misprice the value of the firm. There should be improvements in trust and confidence of investors to make the market more proficient and frictionless to reduce the anomalous behavior and mis-presentation of the market. The only efficient capital markets can have the practical implications to fair market value of firm.

References


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Line Spacing: fixed – Single
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This section may cover in depth interpretation through applying higher order thinking skill of analysis and develop novel arguments based on significance of statistical relations. Establish interconnections among
and within variables. Testing hypotheses and comparing with literature.

**Discussion and recommendations**
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