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Corporate Governance and Firm Financial Performance: A Meta-Analysis Study

1Waris Ali, 2Riaz Hussain Ansari, 3Muhammad Abdul Basit Memon

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<td>Revised format: November 2020</td>
<td>Based on the meta-analysis of 67 empirical research papers, this research extends prior reviews / meta-analysis studies by investigating the link of corporate governance (CG hereafter) mechanisms with firm financial performance. Further, this research contributes to the extant literature by making comparison of usefulness of CG mechanisms in both developed and developing countries. CG mechanisms appear to play differential role in driving corporate financial performance in both developed and developing countries. In developed countries board meeting and female representation on board has significant positive impact on firm financial performance, while board independence and board size has significant negative relationship. Inconsistent with the results of developed countries, firm financial performance appear to be negatively associated with board independence, board meeting, and managerial ownership and positively associated with ownership concentration. This difference can be attributed to different institutional settings in both developed and developing countries.</td>
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**Keywords**

Corporate Governance, Firm Financial Performance, Board of Directors, Independent Directors, Board Size

**JEL Classification:**

M40, M41

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1. Introduction

Corporate scandals notably Enron, Health South Corporation, WorldCom, Tyco, and Lehman Brothers etc. (Agrawal&Chadha, 2005; Bhagat& Bolton, 2013 ) and the criminal activities of top level executives in the past three decades triggered the interest of global community in general and the research community in particular regarding CG. Due to the increasing public concern regarding corporate frauds, this concept has now become very popular in academia. The principal motive of CG is to control the opportunistic behavior of top level administrators and executives (Fama& Jensen, 1983; Sabbaghi, 2016), often found involved in corporate scams. CG is the system to direct and control companies’ affairs (Abor, 2007; Alabullah, 2016). The implementation of good CG mechanisms has led firms to accomplish better financial outcomes (Claessens et al. 2002).
The link between CG mechanisms and corporate financial performance has been empirically investigated by many scholars (Canyon & Peck, 1998; Dalton et al., 1999; Guest, 2009; Beiner et al., 2006; Ujunwa, 2012; Palaniappan G., 2017). These studies used different proxies such as board committees, board size, board independence, CEO duality, and board meetings (Abor, 2007; Nyamongo & Temesgen, 2013; Palaniappa G., 2017) to measure CG and used accounting ratios such as return on equity, return on assets and net profit margin and market ratios such as Tobin’s Q and earnings per share to measure corporate financial performance (Guest, 2009; Kowalewski, 2012; Darko et al., 2016; Beiner et al., 2006). Further, extant literature was not consistent in using a particular theory to elucidate the linkage between CG and financial performance and have used different theoretical perspectives such as agency theory, stewardship theory, stakeholder theory, resource dependence theory, and human capital theory (Arora & Sharma, 2016; Rashid, 2010; Nyamongo & Temesgen, 2013; Afrifa & Tauringana, 2015; Vafaee et al., 2015). The existing literature does not provide consensus on the link between CG mechanisms and financial performance for example some studies indicate significant positive relationship between the dimensions of governance and corporate financial performance measures while other show a negative relationship. Therefore, this study aims to draw conclusive results based on the results of existing studies by conducting a meta-analysis on the proxies of CG and firm financial performance in both developed and developing countries. Some meta-analysis studies on the link between CG and firm financial performance have already been conducted but those studies focused on one or two variables to estimate the results (Dalton et al., 1999; 1998) and ignored the other important variables such as such as board size, board independence, board committees, audit committees independence, CEO duality and proportion of female directors on board. Further, corporations in developed and developing countries appear to perceive pressures of different magnitudes from different stakeholders (Ali et al., 2019). It is really precarious to generalize the results of studies conducted in developed countries over developing countries (Gray et al., 1996; De-Villiers and Van-Staden, 2006).

This study is therefore targeted to conduct the meta-analysis on the link between CG and firm financial performance by incorporating maximum proxies from studies conducted in both developed and developing countries. This study adds to the extant literature in three ways. Firstly, this study contributes to the literature by incorporating maximum variables of CG as compared to other meta-analysis studies which focused on one or two variables. Secondly, this study presents literature on CG and corporate financial performance about developed and developing countries in a tabular form which could help the beginners to understand differential impact of CG mechanisms on financial outcomes in developed and developing countries. Finally, this study presents separate meta-analysis results for studies conducted in developed and developing countries. The remainder paper is structured as follows: The subsequent section consists of literature review, describing studies on the link between CG and corporate financial performance in developed and developing countries. The proceeding section presents research methodology of this research. The penultimate section highlights data analysis results. The last section consists of conclusion, limitations and future research suggestions.

2. Literature Review

Previous studies used different classifications to present the existing literature. Dalton et al. (1998) structured existing literature into (1) board size (2) firm’s financial performance, and (3) moderating variables. Haniffa and Hudaib (2006) classified their literature into (1) independent/self-reliant variables (2) dependent/reliant variables, and (3) control variables. Shan and McIver (2011) divided their literature into four parts (1) characteristics of CG (2) ownership structures (3) financial indicators, and (4) control variables. In this study we have first divided our literature into developed and developing countries and then further divided into CG and financial measures.

3. CG and Firm Financial Performance in Developed Countries

The CG studies conducted in developed countries are summarized in Table 1. Existing studies mainly focused on Australia, US, and UK and paid little attention to other developed countries such as France, Spain, Netherland, Denmark, Italy, Japan, Norway, New Zealand, Germany, and Switzerland (see Table
These studies used different theoretical perspectives such as agency theory, stewardship theory, stakeholder theory, and resource dependence theory but agency theory appeared to be a most dominant theoretical perspective in describing the link between CG and firm financial performance. Further studies extensively relied on secondary data sources and used multiple regression analysis techniques to investigate the relationship between the variables. In the CG category, the most frequently examined determinants of firm financial performance are board size, board independence, board diversity, and shareholder concentration (see Table 2). The studies in developed countries did not provide consensus on the role of board size in deriving corporate financial performance where some studies have shown significance positive relationship between board size and corporate financial performance (Beiner et al., 2006; Canyon and Peck, 1998; Rashid and Islam, 2013; Andres et al., 2005;), while some have shown significant negative relationship (Bonn et al., 2004; Guest, 2009). Consistent with board size, other prominent proxies of CG such as board diversity (Bonn et al., 2004; Erhardt et al., 2003), CEO duality (Beiner et al., 2006; Bonn et al., 2004; Christensen et al., 2010; Vafaei et al., 2015), board independence (Bonn et al., 2004; Christensen et al., 2010; Beiner et al., 2006; Vafaei et al., 2015), and shareholder concentration (Christensen et al., 2010; Rashid and Islam, 2013; Gaur et al., 2015; Gedajlovic and Shapiro, 2002) also appear to have differential impact on corporate financial performance. Other CG proxies such as audit committee (Laing and Weir, 1999) and large shareholders (Beiner et al., 2006) also appear to influence corporate financial performance. Corporate financial performance was measured by using different proxies such as return on assets, return on equity, Tobin’s Q ratio, earnings per share, net profit margin, and market to book value ratio. However, return on asset and Tobin’s Q have appeared to be the most frequently used proxies of corporate financial performance.
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Acronyms: AT = Agency Theory; ST = Stakeholder Theory; ST* = Stewardship Theory; RDT = Recourse Dependence Theory; N/A = Not Applied; BS* = Board Structure; BS = Board Size; BM = Board Meetings; BC = Board Committee; NED = Non-Executive Directors; BI = Board Independence; AC = Audit Committee; ACS = Audit Committee Size; RC = Remuneration Committee; OC = Ownership Concentration; NC = Nomination Committee; IO = Institutional ownership; SC = Shareholder Concentration; MO = Managerial Ownership; GD = Government Disclosure; IT = Industry Type; FLY = Firm listing year; AT* = Audit Type; ROA = Return on Assets; ROE = Return on Equity; TBQ = Tobin’s Q Ratio, EPS = Earnings Per Share, NPM = Net Profit Margin, MBR = Market Book Ratio.
4. CG and Financial Performance in Developing Countries

The studies on the linkage between CG and firm financial performance conducted in developing countries are summarized in table 2. Existing studies mainly focused on Bangladesh, Nigeria, Thailand, Malaysia, Ghana, China, India, Pakistan, Hong Kong, UAE, Saudi Arabia, and Sri Lanka (see Table 2). Consistent with the findings of developed countries, studies in developing countries also used different theories to explain the link between CG and financial performance and predominantly relied on agency theoretical perspective. Likewise in developed countries, studies extensively relied on secondary data sources and used multiple regression analysis techniques to investigate the relationship between variables. Consistent with the developed countries board size, board independence, and CEO duality appeared to be the most frequently used proxies of CG (see Table 2). These studies do not provide consensus on the role of board size, board independence, and CEO duality in deriving corporate financial performance and appear to have differential impact (see Yammeesri and Herath, 2010; Rashid et al., 2010; Rashid, 2010; Zulkafli and Samad, 2007; Lei and Song, 2012; Lam and Lee, 2012; Sheikh et al., 2013; Haniffa and Hudaib, 2006). Contrary to the findings of studies in developed countries, studies in developing countries used relatively a large number of proxies such as managerial ownership, institutional ownership, government ownership, foreign ownership, concentrated ownership, board composition, female representation on board, and multiple directorships to measure the CG. These proxies appear to show different kind of impact on financial performance. In addition to the above, firm size, age, leverage, and industry also appear to influence corporate financial performance. Consistent with the results in developed countries, corporate financial performance was measured by using different proxies such as return on equity, return on assets, Tobin’s Q ratio, earnings per share, net profit margin, and market to book value ratio; and return on asset and Tobin’s Q appeared to be the most frequently used proxies of corporate financial performance.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Country</th>
<th>Theoretical perspective</th>
<th>Sample Size</th>
<th>Methodology</th>
<th>CG Measures</th>
<th>Performance Measures</th>
<th>Performance Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haniffa &amp; Hudai (2006)</td>
<td>Malaysia</td>
<td>N/A</td>
<td>347 Firms Listed in KLSE</td>
<td>Correlation &amp; Regression analysis</td>
<td>BS (+), TOP5 shareholder (+), Multiple directorship (+), Firm Size (-), Managerial ownership (-), Firm size (+), Industry (+)</td>
<td>ROA, TBQ</td>
<td></td>
</tr>
<tr>
<td>Coleman et al., (2006-2007)</td>
<td>Ghana</td>
<td>AT</td>
<td>Firms from the Ghana Stock Exchange</td>
<td>Regression Analysis</td>
<td>Ratio of Outside Directors (+), Debt Ratio (-),</td>
<td>ROA</td>
<td></td>
</tr>
<tr>
<td>Zulkafli &amp; Sama (2007)</td>
<td>9 Emerging Countries</td>
<td>N/A</td>
<td>107 listed Banks</td>
<td>Estimated Generalized Least Square Regression model (EGLS)</td>
<td>CEO duality (-), Largest block holders (+), Foreign Ownership (-), Govt. Ownership (-), Largest block holders (-)</td>
<td>ROA and TBQ</td>
<td></td>
</tr>
<tr>
<td>Rashid et al. (2010)</td>
<td>Bangladesh</td>
<td>AT</td>
<td>90 Non-Financial Firms</td>
<td>Regression Analysis</td>
<td>BS (-), Firm Size (+), BS (+)</td>
<td>ROA, TBQ</td>
<td></td>
</tr>
<tr>
<td>Yammeesri &amp; Herath (2010)</td>
<td>Thailand</td>
<td>AT</td>
<td>245 Firms</td>
<td>Regression Analysis</td>
<td>Insider Directors (+), CEO Duality (-), ROA (+), Leverage (+), Sales Growth (+), Firm Size (-)</td>
<td>TBQ</td>
<td></td>
</tr>
<tr>
<td>Rashid (2010)</td>
<td>Bangladesh</td>
<td>AT, ST*, RDT</td>
<td>93 Firms</td>
<td>Two Stage Least Square Regression Analysis</td>
<td>CEO Duality (-), BS (+), Director Share Ownership (+), Firm Size (+), FirmAge (+), Institutional Share Ownership (-), Debt Ratio (+), Debt Ratio (-)</td>
<td>ROA, TBQ</td>
<td></td>
</tr>
<tr>
<td>Ujunwa (2012)</td>
<td>Nigeria</td>
<td>AT</td>
<td>122 quoted firms</td>
<td>GLS Fixed &amp; Random effect model</td>
<td>Board Nationality (+), Board Duality (-), Board Skills (+), Board Gender (-)</td>
<td>ROA</td>
<td></td>
</tr>
<tr>
<td>Lei &amp; Song (2012)</td>
<td>China</td>
<td>N/A</td>
<td>Unique Dataset that Covers years From 2001 to 2009</td>
<td>Regression Analysis Combine 13 CG Attributes Using PCA</td>
<td>Independent Non-Executive Directors (+)</td>
<td>TBQ</td>
<td></td>
</tr>
<tr>
<td>Authors</td>
<td>Country</td>
<td>AT/ST/RDT</td>
<td>Sample Size</td>
<td>Methodology</td>
<td>Variables</td>
<td>ROA, ROE, TBQ</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Lam &amp; Lee (2012)</td>
<td>Hong Kong</td>
<td>AT</td>
<td>346 Firm Year Observations of public firms</td>
<td>Multiple Regression Analysis</td>
<td>Remuneration Committee in family firms (+), Nomination Committee (+), CEO duality (+)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Sheikh et al. (2013)</td>
<td>Pakistan</td>
<td>AT, ST, RDT</td>
<td>154 Firms</td>
<td>Panel econometric &amp; polled ordinary least square method</td>
<td>BS (+), Non-Executive Directors (-), Managerial Ownership (-), Ownership Concentration (+), Firm Size (+), Leverage (-)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Hassan &amp; Halbouni (2013)</td>
<td>UAE</td>
<td>AT</td>
<td>95 Firms</td>
<td>Regression analysis</td>
<td>BS (+), CEO Duality (+)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Manawaduge &amp; Zoysa (2013)</td>
<td>Sri Lanka</td>
<td>AT</td>
<td>157 Firms</td>
<td>Regression analysis</td>
<td>Ownership Concentration (-)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Nyamongo &amp; Temesgen (2013)</td>
<td>Kenya</td>
<td>AT &amp; ST*</td>
<td>37 Commercial Banks</td>
<td>Panel Econometric model</td>
<td>BS (-), Independent directors (+)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Li et al. (2015)</td>
<td>China</td>
<td>N/A</td>
<td>1241 firms listed on Shanghai stock exchange</td>
<td>Regression analysis</td>
<td>Ownership Concentration (-)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Pamburai et al. (2015)</td>
<td>South Africa</td>
<td>N/A</td>
<td>158 Firms</td>
<td>Multiple regression analysis</td>
<td>Non-executive directors (+)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Basyith et al. (2015)</td>
<td>Indonesia</td>
<td>AT</td>
<td>38 Firms Listed in Indonesian Stock Exchange</td>
<td>Tobit Regression Analysis</td>
<td>Managerial Ownership (-), Block holder Ownership (+), BS (-)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Ilina et al. (2015)</td>
<td>Russia</td>
<td>AT, RDT</td>
<td>207 Public Companies Traded on Russian Stock Exchange</td>
<td>Regression Analysis</td>
<td>BS (+), Women Directors (+), Company Size (-), Leverage (+)</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Darko et al. (2016)</td>
<td>Ghana</td>
<td>N/A</td>
<td>20 Listed firms</td>
<td>Panel Regression &amp; ANOVA Test</td>
<td>BS (-), BI (-), Audit committee(-)</td>
<td>✓ ✓ ✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Country</td>
<td>Approach</td>
<td>Sample Size</td>
<td>Methodology</td>
<td>Control Variables</td>
<td>Performance Measure</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------</td>
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<td>-------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Arora &amp; Sharma (2016)</td>
<td>India</td>
<td>AT, ST, ST*, RDT</td>
<td>1922 Firms</td>
<td>Fixed effect estimation system</td>
<td>BS (+), Board Meetings (+)</td>
<td>Tobin Q</td>
<td></td>
</tr>
<tr>
<td>Nguyen et al. (2017)</td>
<td>Vietnam</td>
<td>N/A</td>
<td>217 firms</td>
<td>OLS Regression model</td>
<td>Independent directors (-)</td>
<td>EBIT, Sales growth, ROA</td>
<td></td>
</tr>
<tr>
<td>Palaniappan G. (2017)</td>
<td>India</td>
<td>AT</td>
<td>275 Firms</td>
<td>Multiple regression analysis</td>
<td>BS (-), BI (-), Board Meetings (-)</td>
<td>ROA, ROE, Tobin Q</td>
<td></td>
</tr>
<tr>
<td>Buallay et al. (2017)</td>
<td>Saudi Arabia</td>
<td>AT</td>
<td>171 firms</td>
<td>Regression Analysis</td>
<td>Firm age (+), Auditing Quality (+), Sector (+)</td>
<td>ROA, ROE, TBQ</td>
<td></td>
</tr>
</tbody>
</table>

AT = Agency Theory; ST = Stakeholder Theory; ST* = Stewardship Theory; RDT = Resource Dependence Theory; N/A = Not Applied; BS = Board Size; BC = Board Committee; BS* = Board Structure; BM = Board Meetings; NED = Non-Executive Directors; BI = Board Independence; ACS = Audit Committee Size; RC = Remuneration Committee; AC = Audit Committee; NC = Nomination Committee; IO = Institutional Ownership; OC = Ownership Concentration; MO = Managerial Ownership; SC = Shareholder Concentration; GD = Government Disclosure; IT = Industry Type; FLY = Firm listing year; AT* = Audit type; ROA = Return on Assets; ROE = Return on Equity; TBQ = Tobin’s Q Ratio; EPS = Earnings Per Share; NPM = Net Profit Margin; MBR = Market Book Ratio.
5. Methodology

Meta-analysis is a widely accepted approach to quantitatively integrate the results from the extant literature (Dalton et al., 1999; Combs et al., 2011). We have conducted this Meta-analysis by following the guidelines provided by Ali et al. (2015). Meta-analysis enables researchers to determine the true association between two variables (Dalton et al., 1999). To accomplish this purpose, we collected information about sample size and correlation coefficient to calculate the weighted correlation coefficient and corrected correlation coefficient between the variables.

At first, we have used different keywords such as ‘corporate governance structure and firm financial performance’, ‘board characteristics and firm financial performance’, ‘board size and firm financial performance’, ‘CEO duality and firm financial performance’, ‘board independence and firm financial performance’, ‘board committees and firm financial performance’, ‘ownership structure and firm financial performance’ to search relevant articles on the topic under study. We have searched these keywords by using different online databases such as Google Scholar, Emerald, Science Direct, and Jstor. We have also examined the reference list of available articles and find more articles on the topic under study. At the second stage, we have filtered available studies according to the information required. In order to improve the quality of Meta-analysis we have only shortlisted studies of those journals enlisted in ABS ranking. In the third stage, we ensured that shortlisted studies, examining the link between CG and firm financial performance, are empirical and quantitative in nature. As a result we come up with 67 empirical studies.

At the fourth stage, we used correlation coefficient, a measure of relationship between CG and firm performance, as a unit of analysis. Therefore we searched correlation coefficient from all the selected studies. After searching for the key terms, we have prepared a comprehensive table summarizing studies into developed (see Table 1) and developing (see Table 2) countries. After that we calculated weighted correlation coefficient. To calculate weighted correlation coefficient we, firstly, sum up all the ratios and divided them by number of ratios to take average correlation (R). Then we multiply the average correlation with the sample size of corresponding study which results in weighted correlation coefficient (Rn). This weighted correlation coefficient is used to estimate the overall average corrected correlation coefficient (Rc). We used the following formula for the calculation of average corrected correlation coefficient (Ali et al. 2015).

$$Rc = \sum R \cdot n_i / N$$

Where, $R_i$ is the correlation coefficient of individual firms, $n_i$ is the firms’ corresponding sample size and $N$ is overall sample size of all studies. The p value for each Rc is calculated from the internet by putting values of R score and overall sample size ($N$).

6. Data Analysis

This section describes the Meta analysis of variables for both developed and developing countries.

6.1 Meta-Analysis for the studies in developed countries

In developed countries, the variables for which the data was available were included into the analysis. Those variables are board independence, board size, board meetings, female representation on board, firm size, firm age, leverage and industry. Table 3 to Table 10 presents one by one meta-analysis of those variables. Meta-analysis result shows that board meetings and female representation on board have significant positive relationship with firm financial performance, while board size, firm age, leverage, and industry appear to have significant negative relationship. Further, board independence and firm size were found insignificant.
Table 3: Meta-Analysis for Board Independence

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Author Name &amp; Year</th>
<th>Sample Size(N)</th>
<th>ROA</th>
<th>Tobin's Q</th>
<th>Market to Book Value Ratio</th>
<th>Return on Investment</th>
<th>Sum of All Ratios</th>
<th>No Of Ratios</th>
<th>Weighted Correlation Coefficient(R)</th>
<th>Rn</th>
<th>Rc=Rn/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bonn et al. (2004)</td>
<td></td>
<td>0.254</td>
<td>-0.052</td>
<td></td>
<td>0.202</td>
<td>2</td>
<td>0.101</td>
<td>10.504</td>
<td>-0.0628</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Australian Firms</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Japanese Firms</td>
<td>169</td>
<td>-0.028</td>
<td>-0.011</td>
<td></td>
<td>-0.039</td>
<td>2</td>
<td>-0.0195</td>
<td>-3.2955</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Andres et al. (2005)</td>
<td>450</td>
<td></td>
<td>-0.102</td>
<td></td>
<td>-0.102</td>
<td>1</td>
<td>-0.102</td>
<td>-45.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Beiner et al. (2006)</td>
<td>109</td>
<td>-0.1247</td>
<td></td>
<td></td>
<td>-0.1247</td>
<td>1</td>
<td>-0.1247</td>
<td>-13.5923</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Sample Size</td>
<td>832</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-52.2838</td>
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<td></td>
</tr>
</tbody>
</table>

Table 4: Meta-Analysis for Female Representation on Board

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Author Name &amp; Year</th>
<th>Sample Size(N)</th>
<th>ROA</th>
<th>Tobin's Q</th>
<th>Market to Book Value Ratio</th>
<th>Return on Investment</th>
<th>Sum of All Ratios</th>
<th>No Of Ratios</th>
<th>Weighted Correlation Coefficient(R)</th>
<th>Rn</th>
<th>Rc=Rn/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Erhardt et al. (2003)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Year 1993</td>
<td>112</td>
<td>0.02</td>
<td></td>
<td></td>
<td>0.03</td>
<td>2</td>
<td>0.025</td>
<td>2.8</td>
<td>0.0934</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Year 1998</td>
<td>112</td>
<td>0.18</td>
<td></td>
<td></td>
<td>0.39</td>
<td>2</td>
<td>0.195</td>
<td>21.84</td>
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<tr>
<td>2</td>
<td>Bonn et al. (2004)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Australian Firms</td>
<td>104</td>
<td>0.028</td>
<td>0.285</td>
<td></td>
<td>0.313</td>
<td>2</td>
<td>0.1565</td>
<td>16.276</td>
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<tr>
<td></td>
<td>For Japanese Firms</td>
<td>169</td>
<td>0.035</td>
<td>0.03</td>
<td></td>
<td>0.065</td>
<td>2</td>
<td>0.0325</td>
<td>5.4925</td>
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</tr>
<tr>
<td></td>
<td>Total Sample Size</td>
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<td></td>
<td></td>
<td>46.4085</td>
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</tbody>
</table>

Table 5: Meta-Analysis for Board Size

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Correlation Table</th>
<th>Sample Size(N)</th>
<th>ROA</th>
<th>Tobin's Q</th>
<th>Market to Book Value Ratio</th>
<th>Return on Investment</th>
<th>Sum of All Ratios</th>
<th>No Of Ratios</th>
<th>Weighted Correlation Coefficient(R)</th>
<th>Rn</th>
<th>Rc=Rn/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Eisenberg et al. (1998)</td>
<td>879</td>
<td>-0.179</td>
<td></td>
<td></td>
<td>-0.179</td>
<td>1</td>
<td>-0.179</td>
<td>-157.341</td>
<td>-0.1121</td>
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</tr>
<tr>
<td>2</td>
<td>Erhardt et al. (2005)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Year 1993</td>
<td>112</td>
<td>-0.03</td>
<td></td>
<td></td>
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<td>-3.92</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>For Year 1998</td>
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<td>0.01</td>
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<td>0.11</td>
<td>2</td>
<td>0.055</td>
<td>6.16</td>
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<tr>
<td>3</td>
<td>Bonn et al. (2004)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Australian Firms</td>
<td>104</td>
<td>0.042</td>
<td>-0.182</td>
<td></td>
<td>-0.14</td>
<td>2</td>
<td>-0.07</td>
<td>-7.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For Japanese Firms</td>
<td>169</td>
<td>-0.208</td>
<td>-0.31</td>
<td></td>
<td>-0.518</td>
<td>2</td>
<td>-0.259</td>
<td>-43.771</td>
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</tr>
<tr>
<td>4</td>
<td>Andres et al. (2005)</td>
<td>450</td>
<td>-0.031</td>
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<td></td>
<td>-0.031</td>
<td>1</td>
<td>-0.031</td>
<td>-13.95</td>
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<tr>
<td>5</td>
<td>Beiner et al. (2006)</td>
<td>109</td>
<td>0.0296</td>
<td></td>
<td></td>
<td>0.0296</td>
<td>1</td>
<td>0.0296</td>
<td>3.2264</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total Sample Size</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-216.876</td>
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<td></td>
</tr>
</tbody>
</table>

Table 6: Meta-Analysis for Firm Size

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Author Name &amp; Year</th>
<th>Sample Size(N)</th>
<th>ROA</th>
<th>Tobin's Q</th>
<th>Market to Book Value Ratio</th>
<th>Return on Investment</th>
<th>Sum of All Ratios</th>
<th>No Of Ratios</th>
<th>Weighted Correlation Coefficient(R)</th>
<th>Rn</th>
<th>Rc=Rn/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Eisenberg et al. (1998)</td>
<td>879</td>
<td>-0.185</td>
<td></td>
<td></td>
<td>-0.185</td>
<td>1</td>
<td>-0.185</td>
<td>-162.615</td>
<td>0.0114</td>
<td></td>
</tr>
</tbody>
</table>

Journal of Accounting and Finance in Emerging Economies  
Vol. 6, No 4, December 2020  
927
Table 7: Meta-Analysis for Board Meetings

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<th>Return on Investment</th>
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928
6.2 Meta-Analysis for the Studies in Developing Countries
In developing countries, the variables for which the data was available and were included into the analysis, are board size, CEO duality, board independence, board meetings, female representation on board, managerial ownership, ownership concentration, firm size, firm age, leverage and industry. Table 10 to Table 19 presents one by one meta-analysis of those variables. Meta-analysis results revealed that ownership concentration and firm size have significant positive relationship with firm financial performance while board meetings, managerial ownership, firm age and leverage have significant negative relationship. Further, board size, CEO duality, board independence, female representation on board and industry were found insignificant.
### Table 11: Meta-Analysis for Board Independence

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<th>Market to Book Value Ratio</th>
<th>Earnings Per Share (EVA)</th>
<th>Export Intensity (Ratio of Overseas Sales to total Sales)</th>
<th>Sum of All Ratios</th>
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### Table 12: Meta-Analysis for CEO Duality

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### Table 13: Meta-Analysis for Board Size

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<th>Earnings Per Share</th>
<th>Economical Return</th>
<th>Export Intensity (Ratio of Overseas Sales to total Sales)</th>
<th>Market Capitalizati</th>
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<th>No Of Ratios</th>
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930
Table 14: Meta-Analysis for Board Meetings

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<th>ROE</th>
<th>Tobin’s Q</th>
<th>Economic Return (EVA)</th>
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<th>No Of Ratios</th>
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Table 15: Meta-Analysis for Female Representation on Board

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Table 16: Meta-Analysis for Managerial Ownership

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Total Sample Size 6142

Table 16: Meta-Analysis for Managerial Ownership

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Total Sample Size 6142

Table 17: Meta-Analysis for Managerial Ownership

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**Table 18: Meta-Analysis for Ownership Concentration.**

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**Table 19: Meta-Analysis for Firm Age**

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Table 20: Meta-Analysis for Industry.

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<td></td>
<td></td>
<td>0.0491</td>
<td></td>
</tr>
</tbody>
</table>

Table 21: Meta-Analysis for Leverage.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Author Name &amp; Year</th>
<th>Sample Size(N)</th>
<th>ROA</th>
<th>ROE</th>
<th>Tobin's Q</th>
<th>Market to Book Value Ratio</th>
<th>Earnings Per Share</th>
<th>Economic Return (EVA)</th>
<th>Sum of All Ratios</th>
<th>No Of Ratios</th>
<th>Weighted Correlation Coefficient(R)</th>
<th>Rn</th>
<th>Re=Rn/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jackling &amp; Johl (2009)</td>
<td>180</td>
<td>-0.46</td>
<td>-0.21</td>
<td></td>
<td>-0.67</td>
<td>2</td>
<td>-60.3</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Hassan &amp; Halbouni (2013)</td>
<td>95</td>
<td>0.037</td>
<td>0.033</td>
<td>0.036</td>
<td>0.106</td>
<td>3</td>
<td>3.3567</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sheik et al.(2013)</td>
<td>154</td>
<td>-0.4</td>
<td>-0.2</td>
<td>0.01</td>
<td>-0.79</td>
<td>4</td>
<td>-30.415</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Afrifa &amp; Taurinjana (2015)</td>
<td>234</td>
<td>-0.0004</td>
<td></td>
<td></td>
<td>-0.0004</td>
<td>1</td>
<td>-0.0936</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Khouri (2015)</td>
<td>89</td>
<td>0.012</td>
<td></td>
<td></td>
<td>0.012</td>
<td>1</td>
<td>1.068</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Pamburasi et al.(2015)</td>
<td>158</td>
<td>-0.138</td>
<td>-0.1212</td>
<td>0.0611</td>
<td>-0.1981</td>
<td>3</td>
<td>-10.4333</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Nguyen et al.(2017)</td>
<td>217</td>
<td>-0.305</td>
<td></td>
<td></td>
<td>-0.305</td>
<td>1</td>
<td>-66.185</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Palaniappan G. (2017)</td>
<td>275</td>
<td>-0.025</td>
<td>-0.063</td>
<td>-0.08</td>
<td>-0.168</td>
<td>3</td>
<td>-15.4</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Sample Size</strong></td>
<td><strong>1402</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-178.402</td>
<td></td>
<td></td>
<td>0.0491</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. Results and Discussion
Table 22 summarizes the results on the impact of CG on firm financial performance in both developed and developing countries separately. Board independence is found to have significant negative relationship with firm financial performance in both developed (Rc = -0.0628, P <0.10) and developing countries (Rc=0.026, P <0.10). The significant result may be due to the reason that there is nominal representation of independent directors on the board. It shows that independent directors on boards appear to negatively contribute to upgrade firm performance. This result is contradictory to the prediction of agency theory which argue that effective boards largely consists of independent and outside directors (Dalton et al. 1999). The lack of independent directors on boards makes the firm difficult to respond to critical issues in the top management. Further, independent directors increase the monitoring ability of top level executives, largely found involved in corporate scams and also control the agency problems of the company. The result revealed a significant negative relationship between board size and firm financial performance in developed countries (Rc= -0.1121, P <0.05) and insignificant in developing countries (Rc = 0.01672, P > 0.05). This result is contradictory to the predictions of resource dependence theory which suggests that large board is necessary to increase the performance of companies and to acquire resource from external environment. Contrary to the findings of developing countries where board meeting and firm performance have significant negative relationship (Rc= -0.2452, P <0.05), number of board meeting appear to positively contributes towards financial performance in developed countries (Rc=0.1000, P<0.05). Thus board meeting have differential impact in both developed and developing countries. The positive result between board meeting and firm performance supports the view that a greater constancy of board meetings is likely to result in remarkable performance (Lipton and Lorsch, 1992). In addition to this, Conger et al. (1998) outlined that “board meeting time is an important resource that helps in improving the effectiveness of board”. Contrary to the results of developing countries where female representation on board has insignificant relationship with firm performance (Rc= 0.0150, P >0.05), the female representation on board cause to uplift the firm performance in developed countries (Rc=0.0934, P <0.05). In addition to the above, ownership concentration (Rc= 0.076, P <0.05) and managerial ownership (Rc= -0.100, P <0.05) appear to play differential role towards corporate financial performance in developing countries. The role of these variables has not been examined in developed countries due to the non availability of data.

Table 22: Results for the Relationship between CG and Firm Financial Performance

<table>
<thead>
<tr>
<th>Variables/Proxies</th>
<th>Developed Countries</th>
<th>Developing Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Rc</td>
</tr>
<tr>
<td>CG Proxies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Independence</td>
<td>832</td>
<td>-0.063</td>
</tr>
<tr>
<td>CEO Duality</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Board Size</td>
<td>1935</td>
<td>-0.112</td>
</tr>
<tr>
<td>Board Meetings</td>
<td>450</td>
<td>0.100</td>
</tr>
<tr>
<td>Female Representation on Board</td>
<td>497</td>
<td>0.093</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Control Variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Size</td>
<td>1553</td>
<td>0.011</td>
</tr>
<tr>
<td>Firm Age</td>
<td>1152</td>
<td>-0.136</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>109</td>
<td>-0.246</td>
</tr>
<tr>
<td>Industry</td>
<td>224</td>
<td>-0.228</td>
</tr>
</tbody>
</table>

N = Overall Sample Size; Rc = Corrected Correlation Coefficient

With regards to control variables, the results showed a significant positive relationship (Rc= 0.1197, P <0.05) of firm size with firm performance in developing countries while it was found insignificant in developed countries. This suggests that large firm size positively contributes to firm financial performance. Further firm age and financial leverage were found to have significant negative relationship with firm financial performance in both developed and developing countries.
8. Conclusion

Based on the meta-analysis of 67 empirical research papers, this research extends prior reviews / meta-analysis studies by examining the impact of CG mechanisms on firm financial performance. Further, this research contributes to the existing literature by making comparison of usefulness of CG mechanisms in developed and developing countries. The results showed that CG mechanisms appear to play differential role in driving corporate financial performance in both developed and developing countries. In developed countries board meeting and female representation on board has significant positive impact on financial performance while board independence and board size has significant negative relationship. Inconsistent with the results of developed countries, firm performance appear to be negatively associated with board independence, board meeting, and managerial ownership and positive associated with ownership concentration. This difference can be attributed to different social, political, and cultural factors in both developed and developing countries. The same has been echoed by Ali et al. (2017). This research is not free limitations. Firstly, this research relied on existing empirical research studies for data collection purpose and ignored other variables and characteristics of CG due to the non-availability of required information. Therefore, this research does not provide comprehensive view on the impact of CG on firm performance. Further, this research is limited to studies published in journals enlisted with ABS ranking 2015. Therefore future research should incorporate other authentic journals /empirical research papers in to the analysis.

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Comparative Analysis of Effective Project Governance Practices and Benefit Realization Management for the Successful Execution of Projects in NGO Industry

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ARTICLE DETAILS

Purpose: This study has examined the influence/control of effective project governance practices on the accomplishments of the different projects those were carried out by the Non-Government Organizations (NGO) sector in Pakistan. This study has also analyzed the significance of benefits realization management as moderation between project governance and project success in order to achieve the organizational strategic goals and objectives.

Design/Methodology/Approach: Quantitative research methodology has been used in this research in which survey questionnaires have been conducted from the project management staff of the selected NGOs which have their head-offices in twins cities Rawalpindi and Islamabad. A total of 305 responses as per the simple random sampling of the project management staff of selected NGOs have been used to draw the results of this research using Smartpls software version 3 to analyze the data in order to prove the hypothesis of this research.

Findings: After through examining/securitization of the data, it was clearly seen that there were positive/momentous effects on the efficiency of the projects, benefits of the organizations, impact of the projects & its future perspective to be more successful. Moreover, the moderating effect of benefits realization management in the relation between project governance and organizational benefits, project impact, project efficiency also stakeholder satisfaction is positive and significant. However, benefits realization management insignificantly moderate relation between project governance and future potential.

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1. Introduction

It had been seen that there is a wide variance in understanding and defining EPG i.e. “Effective Project Governance” which had been actually based on the setting of its technical/technological background & moreover on its research-based pasture of so many researchers/authors (Ul Musawir et al., 2017). Zwikael & Smyrk (2015) described the EPG as using of some specific systems, authority of the structures & having different project management processes for the allocation of resources (both physical & materialistic) while coordinating the activities/milestones in different projects. On the other side/perspective the Ul Musawir, Abd-Karim & Mohd-Danuri (2020) explained that the effective project governance also exists having the exclusive objective for the achievement of requisite goals of the organizations already planned/ fixed within the framework/model. Furthermore, success of project is understood as the attainment of a certain order of subjective and objectives calculations, demonstrated in success criteria of a project that is calculated after the project is completed (Mahmood et al., 2017). As per Santos et al. (2020) the success criteria of a project could include several variables on the basis of which the project success is measured, this research has adapted the same model presented by him, who had examined the past forty (40) years research literature in this field of knowledge related to the best success/accomplishment criteria for the creation of a unified model for measuring project success (Latif et al., 2020).

The model proposes an equilibrium among soft and hard elements and quantifies twenty-five variables of success criteria arranged in five dimensions, researcher has adapted this five-dimension criteria to measure the effect of the EPG on the success of the non-governmental organizations (NGO) sector development projects in Pakistan as a gap found in the literature by the researcher. Researcher has also analyzed the role of benefits realization management (BRM) as a moderatorin between EPG and project success (Stretton, 2020). As per the Svejvig & Schlichter (2020) benefits realization management (BRM) is a “set of different project processes which produce the authenticity/confirmation that the different Projects/programs/portfolios implant the requisite necessities of project and business strategies & guidelines into different business practices for the creation of worth of the projects in a significant/remarkable way.

A good amount of researches have been conducted on the association among the governance of project, performance of project management and success of project, but according to Mir & Pinington (2014) it has been determined that project management performance doesn’t entirely justifies the divergence in the project success as there are several other external factors then the Iron Triangle (Scope, cost and time) that explain the variation in the success of a project. Therefore, more researches are to be conducted to measure the influence of external factors on project success which could create an impact on project success (Breese et al., 2015). Researchers indeed have begun to expend the extent of viable factors of success to focus on the impact of them on success of the projects and one of these factors is considered to be EPG, that has gained much recognition since the year 2005 (Tomo et al., 2020). As per AMP (2015) & PMI (2016) the failures of a massive number of projects were not able to meet their requisite objectives with just 40% of the project goals and objectives aligning with the strategy of an organization (PMI, 2014). It becomes more troubling when there is a continuous stress from the top management onto the project/programme managers to reveal the benefits of the project to the sponsoring organization and to the giving to the strategy realization within the projectized organization as per explained by Sulehat & Taib, (2016).

NGOs working in Pakistan are the main focus of this research as NGOs’ governance is quite different from the governance of public entities or private organizations as they do not have single official owner,
like the shareholders, investors in for-profit businesses. According to Haq et al. (2019), the managers must have “an almost unmatched degree of autonomy” so these companies/organizations might require some effectual inner governance processes/mechanisms for their administration (Mahmud, Ding & Hasan, 2019). Hence, this research study has examined the influence of EPG practices followed by the project management of NGO sector development projects on the success of their projects as well as emphasized on the significant role of BRM as a moderator to provide a foundation for project success of future projects under NGOs in Pakistan.

2. Literature Review and Research Hypothesis

2.1 Effective Project Governance and Project Success

According to (Derakhshan, Turner & Mancini, 2019), it has been observed that there is a big deviation to recognize and understand the definitions & practices of effective project governance (EPG) being used in project management and further relying on its realistic past settings & research area of the particular authors as stated by (Bekker, 2015) by creating any lack of agreement on a precise definition of EPG in the existing literature.

McGrath & Whitty (2015) have explained project governance in a so simple form that it’s that system through which we can governed the project, directed the project & controlled the project. Turner(2020) explained the fact that the role of EPG can be seen in project management practices and in the governance roles for individual as well as for the overall projects for their necessary outcomes. Ul Musawir et al. (2017) illustrate the project governance as a whole “the good value system for projects, assigned responsibilities for projects, necessary processes & policies for projects which permit the projects to attain those managerial objectives & goals for projects which is the most important for all the relevant project stakeholders (internal & external to the organizations). Abednego and Ogunlana (2006) in their study discussed governance and challenges related to governance in the context of Public–Private Partnership (PPP) projects and defined it as “It is the process of problem solving and decision-making through which the right decisions for the projects can be put into operation”. Garland (2009) also portray it such as “it’s that model/hypothetical framework through which decisions for the project could be made very easily”.

Purposefully it’s also very important that while doing the configuration of projects, the goals should be the major part of PMI’s practice/policies & necessary guidance to govern the projects /programs & portfolios. In the same way all the processes/ functions/frameworks which actually provide the guidance for the project management activities for the creation of a unique product/service/result in a very novel way to fulfill organizational goals (PMI, 2016). Moreover “governance of individual projects” & “governance of group of projects such as portfolio, programs” have the right alignment as for as PMI is concerned (PMI, 2014). EPG offers the systematic approach for tracing as well as communicating the project progress, permitting the project sponsors to comprehend and affect decision making related to project (Bowen et al., 2007). Likewise, Brunet (2016) also recommended EPG in public sector projects permits improved stakeholder management and rational decision making. Zwikael et al. (2015) also determined that effective project governance generates a framework of accountability which ensures that the projects accomplish their business case. For instant, Abednego et al. (2006) suggested that effective governance helps improving performance of the project by accelerating well-timed efficient allocation of risks risk as well as control over the risks. Furthermore, according to Ma et al. (2020) findings well-defined receptive governance arrangements areasignificantfactor of success of the projects under Public-Private Partnership (PPP).

Though the focus of research has changed to other apprehension of the project team to satisfy customers & accomplishment of premeditated objectives of the projects set already, but up till now a lot of project managers are so much anxious/curious about the Project Iron Triangle (Haider & Kayani, 2020). In addition, the idea of success of project can be even more complicated than a result between failure and
success. Examples like the Sydney Opera House signify that if a project is a failure in the context of production efficacy, it can still be successful in the context of investment efficacy (Dvir and Shenhar, 2007). In order to cope up with complication of a success of project, it is compulsory to initially hypothesize it as a multidimensional idea. An amalgamation of previous models in the literature was done by Khan et al (2013), who examined the past forty years of the literature related to the success criteria and created a unified model for measuring the project success.

As far as public sector projects are concerned the “project’s efficiency” may precisely be calculated that how efficiently the usage of time and resources would take place by the project team to achieve the desired objectives of the requisite quality parameters (Serrador & Turner, 2015). As per the definition of “Project Efficiency” given by Dviret al. (2007) “efficiency can only be measured if the project meets the goal of attaining time, cost & performance”, that has been used very frequently as for as the literature regarding project success is concerned in these era (Serrador et al., 2015). The matter of this accomplishment was associated to scope, time & cost concert that has been classify in the existing literature as micro-success/ short-term success/project management success. The model proposed equilibrium among soft and hard elements and quantifies twenty-four variables of success criteria arranged in following five dimensions:

1) **Project Impact**: The project's standing can only be recognized if the project brings those advantages for which it was formed. ul Musawir et al. (2020) distinctly defined the project’s outcome in the development of public sector as “the achievements of lasting results from the successful execution/completion of the projects”.

2) **Stakeholder Satisfaction**: The categories for this dimension in the literature include satisfaction of customer, success of the product itself as well as the success of project management. The satisfaction of project’s stakeholder was chosen to cover up diverse groups such as “steering committee”, “sponsor” & and “client” of the project.

3) **Organizational Benefits**: These are those categories which are associate with those benefits which the relevant organization would represent for those completing project remarkably.

4) **Future Potential**: This factor had items that related to enhancement in capabilities of an organization in order to proceed with future project work, including motivation and learning as well as planning and implementation of project work. As explicated by Dvir et al. (2007) this particular dimension of success actually means, ‘Preparing for the Future’.

According to the findings of a study by Clarkson, Pathan, & Tellam (2016) effectual governance has a very strong/reliable association with the success of projects surrounded by all the factors which are responsible for the success of project. Therefore, it can be concluded that an EPG system can support organizations in not only improving the success of project but also in avoiding the common sources of failure of the project. Therefore, we have developed the following hypotheses:

H1: EPG positively associated with future potential (FP).
H2: EPG positively associated with organizational benefits (OB).
H3: EPG positively associated with project efficiency (PE).
H4: EPG positively associated with project impact (PI).
H5: EPG positively associated with stakeholder satisfaction (SS).

3. **Benefits Realization Management as Moderator between Effective Project Governance and Project Success:**

According to Breese et al. (2015) BRM (benefits realization management) is “a set of processes that ensures that projects, programs, and portfolios embed the requirements of business strategies into business-as-usual, in order to create value in a meaningful and sustainable manner”. Chih & Zwikael, (2015) benefit management is, “Benefits may be objective and quantifiable, such as revenue generation and cost savings, or subjective and unquantifiable, such as customer satisfaction and brand image”. Moreover Jenner (2015), targeted paybacks were designated & framed in the business case of the project for its well-defined agreement by the help of the sponsor of the project. The all targeted benefits were traced/revised & associated with the necessities of the relevant stakeholders & sponsors all the way through project life cycle (PMI, 2016). The earlier researches have also transformed the direction to concentrate on organizational potentials for example the ability to be trained & progress (Svejvig et al., 2020) as well as the capabilities to manage programs (Reiss, 2006) that were required to bring benefits/advantages out of those projects.

In the literature the previous researches had placed the benefit management as a basis of the “Cranfield’s Process Model”, through which project practices are placed under the “identification, planning, executing and reviewing of some benefits” (Bennington &Baccarini, 2004) and consumption of other benefits of the projects as well (Ashurst et al., 2008). As per the “Input–Transformation–Output model”, the compulsion to acquire benefits is to be selected/nominated to a picky project team member (Zwikael et al., 2015). Major theory behind Thorp’s (1998) views regarding the connection between the portfolios, programs and projects is that the task of single projects is to deliver the necessary potentials, is not adequate enough in creation of benefits. Conversely, portfolio management plays a role of maximizing this value throughout the portfolio of the programs (Linhart, Röglinger & Stelzl, 2020).

Recent researches on project management have extensively encouraged the administrations to concentrate on the understanding of projects benefits (Jenner, 2015; PMI, 2016). Various studies and researches have acknowledged the capacity of good governance as key starter for good benefit management. Similarly, major project management principles have also recognized the role of governance in accelerating benefit management as well as governance guidelines such as the “APM's Guide to the Governance of Project Management” (Sirisomboonsuk et al., 2018) and PMBOK of PMI. However, the governance systems that would enable benefit management have not been explored in the previous literature (Hesselmann and Kunal, 2014) hence an in-depth examination is in demand. According to Ahlemann et al., (2013) “Governance system can induce benefits ownership by defining benefits-related goals and by creating incentives for the adoption and implementation of benefit management practices”. Also, the top management and leadership can help escort the BRM practices by uninterruptedly keeping the target benefits of project affiliated with the commitments and strategies of the organization (Hjelmbrekke et al., 2014). The point of views mentioned above suggests that EPG is an important factor for effective benefit management. In contrast to that an improper governance structure can result into a key trial for the fruitful execution of benefit management system in the project (Breese et al., 2015).

According to Serra and Kunc (2015) project managers as a result are often put aside from the conversation of benefits management, in spite of the fact that the expertise and support of project manager are vital for efficient BRM (Jenner, 2015; PMI, 2016). Besides, the main argument to BRM implementation is that a major chunk of the establishments yet not realize to apprise project benefits management as a benchmark for the success of a project (Cooke-Davies, 2002). Latest researches on project management excessively advocated the mandatory requirement for the organizations to concentrate on project BRM “(Stretton, 2020; Schlichter, 2020)”. Therefore, an effective project governance approach can support in overcoming this hurdle by creating obvious roles & responsibilities (Mayet al., 2009). The creation of a framework for accountability for the analyze of advantages/ benefits /planning & benefit realization (Ahlemann et al., 2013; Badewi, 2015). Hence, it can be theorized that the effect of EPG on project success is due to its improved effect on BRM. Therefore, it is
proposed that a moderation relationship is summarized in the following hypotheses of this research:

**H6:** BRM as moderator between effective EPG and future potential (FP)

**H7:** BRM as moderator between effective EPG and organizational benefits (OB).

**H8:** BRM as moderator between effective EPG and project efficiency (PE).

**H9:** BRM as moderator between effective EPG and project impact (PI).

**H10:** EPG as moderator between effective EPG and stakeholder satisfaction (SS).

![Figure 1: Conceptual Model](image)

**4. Research Method**

**4.1 Research Design and Sampling Method**

Current research defines exploratory cum descriptive and the research method is naturally attractive. In addition, data collection for all is not possible due to resources and time frames, which is why the sample is used to collect and test data. Therefore, in this study, a simple randomized procedure and data collection was performed over a four-month period (November 2019, February 2020). Possible sampling techniques used to reduce the variance of the standard method from the data collection method (Podsakoff et al., 2003; Fuller et al., 2016). The people of the study consisted of non-governmental organizations (NGOs) namely Islamic Relief Program Director of Pakistan, Helping Hands Relief and Development Pakistan, Muslim Aid Pakistan, Pakistan Red Crescent.

An aggregate of 370 surveys were conveyed the response rate was quite anticipative with whole of 305 useable questionnaires returned, yielding a response rate of 82.43%. The respondents are project assistant, project coordinator, project manager working in these NGOs. After data collection Harman’s single factor test is conducted to identify common method variance the result of extraction sums of squared loading is 27.98% of variance which is less than 50%, which means there is no common method biased issue in data (Tehseen, Ramayah & Sajilan, 2017). Out of these 305 respondents, 49.2% were male and 50.8% were female. The majority of the sample fell within the ages of 20–40 years old. With
respect to the educational level large numbers of respondents are master’s degree holders. Also, the respondents of current study had majority job tenure of 1-3 and 4-6 years.

5. Measures
The data was compiled with the help of queries designed from a variety of sources. The questionnaire consisted of a total of 43 items: with respect to independent variables, a 9-item scale developed by Ul Musawir et al. (2017) were used to measure effective project governance (EPG), the dependent variable project success was measured using a 24-item scale based on five sub-domains: project efficiency (item 8), organizational benefits (item 4), project impact (item 4), future potential (item 4) and stakeholder satisfaction (item 4) developed by (Joslin, 2015). As a result of managing the effects of benefits realization management (BRM), it was measured using a 10-item scale (Sierra and Kunc, 2015). All items were used on a Likert scale of five points measuring including 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree) and 5 (Strongly Agree). It is a very useful tool for data collection because it helps to gather information efficiently and effectively. In order to conduct a more thorough investigation, the pilot study was aimed at ensuring that the questionnaire was valid. Cronbach's alpha was used to check the reliability of the latent variables. Cronbach's alpha for all variables was above the 0.70 thresholds, as reliability above the threshold of 0.7 is considered acceptable (Hensler et al., 2009; Taber, 2018). Cronbach's alpha test results are presented in Table 1.

A multi-component reality-based assessment includes the following tests: factor- loading, variable performance, discriminant validity by the Heterotrait-Monotrait Ratio (HTMT-Ratio) and a moderate/structural model evaluation by predicting the mean value of the prediction(Q²), variance (R²) and effect size (f²) (Hair et al., 2014).

5.1 Measurement Model
The analysis was performed using IBM software and SPSS v. 21 and Smart PLS (Ringle et al., 2015). The first step of the measurement model is being investigated to ensure a list of survey questions that determine the items to be measured, and at the same time to ensure that the tool is reliable. Bootstrapping techniques (T-test 5000 subsample) were used in 305 cases to analyze the significance level of loads, instruments, and road coefficients (Hair et al., 2016). This process consists of load balancing, Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Furthermore, the validity of the hypothesis of explicit indicators can be assessed by examining specific loads and specific items, where it is suggested that loading, of> 0.50 on two or more items is shown to be important (Hair et al., 2014). Therefore, the results of the seventh constructs including effective project governance (EPG), future potential (FP), organizational benefits (OB), project efficiency (PE), project impact (PI), stakeholder satisfaction (SS) and benefits realization management (BRM) to the organization are all formal steps for their construction as shown in Table 1. Since, Fornell and Larcker have stated that if AVE is less than 0.5, but combined reliability is higher than 0.6, the flexibility of construction performance is acceptable (Fornell & Larcker, 1981; Lam, 2012). This approach was suggested by Hair et al. (2014) suggesting that objects with loads elsewhere in the range of 0.40 and 0.70 should be excluded from the measure if the observed variable can increase the combined reliability of the reflective scale. Therefore, after removal, all loading measurements, CR and AVE are larger than the suggested determination process; therefore, Figure 2 shows that the measurement model has a variable performance or convergent validity.
After verifying the flexibility of the model that met the set criteria, the next step was to confirm model bias using the Heterotrait-Monotrait (HTMT) method proposed by Henseler, Ringle and Sarstedt in 2015. There are two methods used by the HTMT method to assess the validity of discrimination. First, using HTMT as a measure involves testing it at a predetermined boundary if the HTMT value is above that threshold and therefore there is no discriminatory performance. The exact threshold value act limit of HTMT is questionable; after all, "when the correlation is close to one". Some researchers raised the limit of 0.85 (Watson et al., 1995; Kline, 2011), while others raised the limit of 0.90 (Gold et al., 2001; Teo et al., 2009). Second, the use of the HTMT inference data analysis when the confidence interval of the HTMT values for the structural pathways contains the value if 1 indicates a lack of discriminatory validity. If the value of 1 fall outside the range of the interval, it proposes that the constructs be empirically distinct. Table 1 shows that the total HTMT value during construction was <0.85. As a result, effective bias has been applied to our model.

Table 1: Measurement Model and HTMT Technique

<table>
<thead>
<tr>
<th>Constructs</th>
<th>A</th>
<th>CR</th>
<th>AVE</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>BRM</td>
<td>0.915</td>
<td>0.929</td>
<td>0.569</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPG</td>
<td>0.850</td>
<td>0.886</td>
<td>0.476</td>
<td>0.414</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP</td>
<td>0.819</td>
<td>0.881</td>
<td>0.649</td>
<td>0.757</td>
<td>0.253</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OB</td>
<td>0.888</td>
<td>0.923</td>
<td>0.749</td>
<td>0.543</td>
<td>0.544</td>
<td>0.330</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>0.930</td>
<td>0.942</td>
<td>0.672</td>
<td>0.520</td>
<td>0.537</td>
<td>0.363</td>
<td>0.794</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.777</td>
<td>0.857</td>
<td>0.599</td>
<td>0.800</td>
<td>0.306</td>
<td>0.735</td>
<td>0.388</td>
<td>0.409</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>0.830</td>
<td>0.887</td>
<td>0.663</td>
<td>0.365</td>
<td>0.777</td>
<td>0.261</td>
<td>0.477</td>
<td>0.470</td>
<td>0.263</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviation: Effective Project Governance (EPG); future potential (FP); organizational benefits (OB); project efficiency (PE); project impact (PI); stakeholder satisfaction (SS); benefits realization management (BRM); Cronbach’sAlpha (α); composite reliability (CR) and average variance extracted (AVE).

6. Structural Equation Model

The structural measurement model is calculated after the measurement model is made. In this study, the standard bootstrapping method was used to determine the critical levels of any organization during construction. To examine the effects of BRM moderator, we followed the methods recommended by Henseler et al. (2015). To analyze both the direct and indirect effects of the equation model models, using certain specific conditions: First, the $R^2$ value is measured, by the endogenous fluctuations to...
determine the amount of variation determined by all constructive elements (Hair et al., 2016). Although, the satisfactory test of $R^2$ depends on the study setting (Cohen, 1998) shows the test of 0.26, 0.13, and 0.09 showing high, moderate and low, respectively. However, in the current $R^2$-values for endogenous variable, the direct result model describing $FP=0.443$, $OB=0.353$, $PE=0.354$, $PI=0.471$ and $SS=0.707$, which means that 44.3% future potential, 35.3% organizational benefits, 35.4% project efficiency, 47.1% project impact and 70.7% stakeholder satisfaction is predicted by Effective Project Governance through benefits realization management. The model shows sufficient predictive accuracy as shown in Table 2 and Figure 2.

### Table 2: Coefficient of Determination in the PLS method

<table>
<thead>
<tr>
<th>Constructs</th>
<th>$R^2$</th>
<th>$R^2$ Adjusted</th>
<th>$Q^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>0.443</td>
<td>0.437</td>
<td>0.478</td>
</tr>
<tr>
<td>OB</td>
<td>0.353</td>
<td>0.346</td>
<td>0.431</td>
</tr>
<tr>
<td>PE</td>
<td>0.354</td>
<td>0.348</td>
<td>0.282</td>
</tr>
<tr>
<td>PI</td>
<td>0.471</td>
<td>0.466</td>
<td>0.329</td>
</tr>
<tr>
<td>SS</td>
<td>0.707</td>
<td>0.704</td>
<td>0.342</td>
</tr>
</tbody>
</table>

**Abbreviation:** Future potential (FP); organizational benefits (OB); project efficiency (PE); project impact (PI); stakeholder satisfaction (SS).

Second, determining the significance of the predictable ($Q^2$) contrast assurance rating was used to measure the value of the probe model estimates (Hair et al., 2014). Table 2 shows the importance of a sufficient estimate of the direct effect model because the $Q^2$ value is greater than zero, $FP=0.478$, $OB=0.431$, $PE=0.282$, $PI=0.329$ and $SS=0.342$ for the endogenous latent variable all values greater than zero, it can be considered as an acceptable predictive relevance of the model (Henseler et al., 2015). Results also support the H1, H2, H3, H4 and H5 as presented in Table 3, the direct effect of EPG has significant and positive effect on FP ($\beta = 0.182$, $p < 0.000$), EPG to OB ($\beta = 0.355$, $p < 0.000$), EPG to PE ($\beta = 0.359$, $p < 0.000$), EPG to PI ($\beta = 0.212$, $p < 0.000$) and EPG to SS ($\beta = 0.833$, $p < 0.000$) all were positive and significant.

Third, the size of the effect ($f^2$) is the result of a clear independent variation of dependent variables to determine the magnitude of the exogenous (independent variable) effect at the end (dependent variables) (Hair et al. (2014). According to Cohen's law (1988), effect size rated between 0.02, 0.15 and 0.35 as small, medium and medium outcomes, respectively. Table 3 specifies the effect size 0.065 of EPG to FP, 0.163 of EPG to OB, 0.167 to EPG to PE, 0.047 to EPG to PI and 1.984 of EPG to SS. The result directs medium and large effect size of these exogenous constructs on the endogenous construct, respectively. Lastly, the model proposes and validate for this study hypothesized that benefits realization management (BRM) would moderate the relationship between Effective Project Governance (EPG) and five sub-dimension of project success (future potential (FP); organizational benefits (OB); project efficiency (PE); project impact (PI); stakeholder satisfaction (SS)). As described in Table 3, the hypotheses H7, H8, H9 and H10 were accepted, the moderating effect of BRM on EPG and OB is positive and significant ($\beta = 0.296$, $p < 0.05$), EPG and PE ($\beta = 0.241$, $p < 0.05$), EPG and PI ($\beta = 0.228$, $p < 0.05$) and EPG and SS ($\beta = 0.23396$, $p < 0.05$). However, the moderating effect of BRM on EPG and FP is significant but negatively ($\beta = -0.095$, $p < 0.05$), hence hypothesis H6 is rejected.

### Table 3: Results of the Structural Equations Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship between constructs</th>
<th>$B$</th>
<th>$t$ Value</th>
<th>$R^2$</th>
<th>$p$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>H2</td>
<td></td>
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<tr>
<td>H3</td>
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<tr>
<td>H4</td>
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<tr>
<td>H5</td>
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<td>H6</td>
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<tr>
<td>H7</td>
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<tr>
<td>H8</td>
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<tr>
<td>H9</td>
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<td></td>
</tr>
<tr>
<td>H10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>EPG -&gt; FP</td>
<td>0.182</td>
<td>0.183</td>
<td>0.043</td>
<td>0.241</td>
</tr>
<tr>
<td>H2</td>
<td>EPG -&gt; OB</td>
<td>0.355</td>
<td>0.356</td>
<td>0.053</td>
<td>0.659</td>
</tr>
<tr>
<td>H3</td>
<td>EPG -&gt; PE</td>
<td>0.359</td>
<td>0.361</td>
<td>0.053</td>
<td>0.748</td>
</tr>
<tr>
<td>H4</td>
<td>EPG -&gt; PI</td>
<td>0.212</td>
<td>0.223</td>
<td>0.055</td>
<td>0.829</td>
</tr>
<tr>
<td>H5</td>
<td>EPG -&gt; SS</td>
<td>0.833</td>
<td>0.836</td>
<td>0.021</td>
<td>0.456</td>
</tr>
<tr>
<td>H6</td>
<td>Moderating Effect BRM -&gt; EPG on FP</td>
<td>0.095</td>
<td>0.096</td>
<td>0.036</td>
<td>0.634</td>
</tr>
<tr>
<td>H7</td>
<td>Moderating Effect BRM -&gt; EPG on OB</td>
<td>0.296</td>
<td>0.135</td>
<td>0.042</td>
<td>0.873</td>
</tr>
<tr>
<td>H8</td>
<td>Moderating Effect BRM -&gt; EPG on PE</td>
<td>0.241</td>
<td>0.142</td>
<td>0.033</td>
<td>0.236</td>
</tr>
<tr>
<td>H9</td>
<td>Moderating Effect BRM -&gt; EPG on PI</td>
<td>0.228</td>
<td>0.239</td>
<td>0.098</td>
<td>0.270</td>
</tr>
<tr>
<td>H10</td>
<td>Moderating Effect BRM -&gt; EPG on SS</td>
<td>0.233</td>
<td>0.133</td>
<td>0.023</td>
<td>0.438</td>
</tr>
</tbody>
</table>

**Abbreviation:** Effective Project Governance (EPG); future potential (FP); organizational benefits (OB); project efficiency (PE); project impact (PI); stakeholder satisfaction (SS); benefits realization management (BRM).

7. **Discussion**

The results and analysis of the data of this study clearly show that there is a (positive) and strong solidity between effective project governance (EPG), benefits realization management (BRM) and success of Non-Governmental Organization (NGO) projects. Ul Musawir et al., 2017 found that there is a strong and positive relationship between EPG and BRM. In addition, the results also show that EPG in project management services has a positive impact on BRM which provides assistance/support in the above-mentioned literature that promotes effective project management support and improved implementation of benefit management processes (Chih et al., 2015; Stretton, 2020) NGO sector. In addition, project management has been found to be in line with project success such as research conducted by perspective the Schlichter, (2020) and Ul Musawir et al. (2020). The EPG has a significant impact on all five sub-dimension of Project success (future potential (FP); organizational benefits (OB); project efficiency (PE); project impact (PI); stakeholder satisfaction (SS).

Moreover, the results also showed that BRM also had a strong and significant impact on OB, PE, PI and SS supporting the results/findings of (Serra &Kunc, 2015; Badewi, 2016;Svejvig et al., 2020) who obtained similar results in their research that included the effect of BRM on the successful achievement of project objectives and its distinctive magnitude. However, BRM as moderator negatively effect on the relationship between EPG and FP. In addition to those outcomes also contributes to the ongoing discussions and research that compulsory profit management practices are mandatory to achieve project success in terms of implementing strategic objectives to achieve organizational goals with the help of successfully completed projects. BRM has been found to play an essential role in moderator between EPG and project success that demonstrates effective governance that can increase the implementation of
profitable management practices so that (Ul Musawir et al., 2017) achieves project success in terms of project benefits.

The results show that the benefit management methods are followed by the project managers of the NGO sector development projects to achieve the short-term and long-term success of the project and all these activities are possible only because of the project management approach followed in the NGO sector projects. Three of these studies are linked and provide an integrated approach to achieving the organization’s goals and objectives with regard to the completion of successful projects while keeping their benefits in mind and implementing a profit management approach with the help of a strong and effective project management approach.

8. Practical Implications of Study
The most important implication of this research is that non-government organizations (NGOs) are required to be acquainted with that benefit realization & management both plays an important role in the success of the projects and in order to achieve organizational strategic goals in short as well as long term perspective. Moreover, this study also suggests that project governance plays a significant role in realizing those benefits and enabling them to be taken into consideration during the planning as well as accomplishment phase of the project to achieve project goals by attaining all the project objectives.

Therefore this “integrated approach for projects” could support the implementation of the organizational/managerial strategy/policy through the projects that are being completed successfully with the help of effective project governance Practices and benefits realization management.

9. Limitation and Future Direction
This research study is limited only to the NGO sector development projects in Pakistan. Its results are limited only to the project management staff that practices the project governance over their projects to get success. In future the same model can be studied with the help of qualitative research methodology or with a larger sample size in case of quantitative research to attain a wide variety of results. In addition to the add-on of different external factors, mediator or moderator future research can also exhibit several other dimensions of the variables discussed in this research as well as can analyze the individual effect of the independent variable and the moderator on the individual dimension of project success in order to make it a comparative study.

10. Conclusion
The aim of this research study was to study the influences of effective project governance practices on the success factors of the project as well as to study the moderating role of benefit management in achieving project accomplishment via good effective project governance practices. Research related to the influence of benefit management on the success of NGO sector development projects in Pakistan which has also been answered by proving the second hypothesis of this study with the help of the data analysis that indicated a strong relationship between benefit management and project success as well as indicated a significant influence of benefit management on success of the projects in NGOs sector. Research of this study was related to the significant affect of effective project governance on project success factors directly as well as indirectly with the moderating role of benefit management.

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International journal of project management, 36(2), 287-300.
Empirical Evidence of Forensic Auditing and Whistleblower on Fraud Control, Organizational Performance; A Case Study of Public and Private Sectors of Pakistan

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ARTICLE DETAILS

ABSTRACT

Aim of the Study: Fraud proceeds to be a genuine obstacle to the survival and fruitful operations in business organizations hence requiring that they create vigorous measures to as much as conceivable diminish the event. The over required the require for this think about which examined the relationship between forensic and the whistle blowing of fraud control and organization performance within the public and private sector in Pakistan. Forensic reviewing may be a quickly developing field of bookkeeping that includes an investigative fashion of bookkeeping utilized to disclose the exercises of people or the corporate sector. Pakistan public and private sectors are more vulnerable to fraud these days. This article evaluates the relationship between forensic audit or whistle blowing on fraud control and organization performance in the public or private sector and assessed the most effective relationship between whistle blowing and forensic auditing as it pertains to unearthing fraud. Research methodology: Study on this research will embrace the deductive approach under positivism paradigm. The study adopted a survey design of research in cross-section. Data analysis: For data collection, 230 questionnaires distributed to financial public and private sectors and 211 questionnaires were got completed. Females were 24 of 211 (f=11.4%) and males were 187 of 211 (f= 88.6%). data were analyzed using Correlation and regression techniques by SPSS 20. The findings forensic audit and whistle blowing has a positive relationship with fraud control and organization performance. Conclusion and recommendation: The study was conducted in Multan, Pakistan due to time and cost
**Keywords**  
Forensic auditing, Whistle-blower, Fraud Control, Organization performance

**JEL Classification:**  
M40, M42

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1. Introduction

Corruption and unlawful practice or applications have got up as solid weapons competent of hemorrhaging the full economy especially the open division since of the high-chance figure related to such practices. The defenselessness of open teach to false hones from inward and without has not spared Pakistan. With a developing quality of intellect to this negative charge with the valuable asset of the utilize of the rising tip top, a heap of government bunches is full with one shape of false hones or the other, and the battling of the people have gotten to be escalates. This situation was mind blowing captioned through the way of (Goffredo, 1983) whereas he said that “no longer handiest does cheat skip on within the kingdom contraption, in any case the country itself is the contraption of theft” (p. 78). In Pakistan, not handiest do officers steal, but taking is additionally official (Jegede, 2008).

According to Faktor et al. (2017) corruption, that is the immoderate time for untrue sharpens, may well be a social sickness, which has eaten significant into the texture of our country wide solidarity. It has the potential to annihiliate an money related contraption within the occasion that not honestly checked. It is given in many ways, which consolidates over-invoicing and swelling of installments, the charge for organizations no longer rendered, the joining of nebulous vision human being in fund, underneath pass on of substances totally paid for, the movement of moment rate super and past materials, and non-universal customary in common execution of contracts or businesses for which installments were claimed. Budgetary traps and blackmail appear up to be a around the world issue. The improvement of the corporate world full of diverse complexities for these days makes progression inside the budgetary run tended to go with by blackmail appearance. It is claimed that the auditors especially must get to know around looking into extortion.

The audit contains a considerable part in fortifying obligation within the contraption of controlling and oversees of the open resources or riches and increments the astuteness of the money related reports. In any case, the gigantic utilize of fake bookkeeping measurements caused enormous dropping for the come out and rising economies, and those misfortunes have had an impact on money related improvement (Hao, 2010). In this period and these days, forensic bookkeeping is to a great extent utilized in select components of the world to manage with budgetary extortion. Measurable examining can offer assistance in uncovering and figuring out the guilty party, by means of the framework of translating, summarizing, and giving complex financial inconveniences clearly(Chi-Chi & Ebimobowei, 2012).

The main purpose of this study to analyze the affect of forensic auditing or whistle blower on fraud control, organization performance within the public and private sectors of Pakistan. To play down the
extortion within the public and private divisions. The disappointment of both inner and outside audits to anticipate and find extortion within the corporate division particularly in Pakistan and their various embarrassments have presently driven to the utilize of forensic review and whistle-blower as an choice for recognizing fraud. Based on the problems initiated and the study goals, the findings/questions of this study (RQs) are presented...

RQ1: What is the relationship between forensic auditing and fraud control in the private and public sector?
RQ2: What is the relationship between whistle blowing and organization performance in the private and public sector?
RQ3: What is the relationship between forensic auditing and organization performance in the private and public sector?
RQ4: What is the relationship between whistle blowing and organization performance in the private and public sector?

The study is aimed to achieve the following objectives
• To examine the relationship between forensic auditing on fraud control in the public and private sector of Pakistan.
• To examine the relationship between the whistleblower on fraud control in the sector of public and private Pakistan.
• To examine the relationship between the whistleblower on organization performance in the sector of public and private Pakistan.
• To examine the relationship between forensic auditing on organization performance in the public and private sector of Pakistan.

2. Literature review
According to Kristen Dreyer (2014), Fraud can take one-of-a-kind shapes checking interior cash related blackmail, bribery, degradation, and misappropriation. Blackmail is the cause of Forensic Bookkeeping exists. In a consider completed by way of Kroll given by utilizing Georgetown College for his or her 2013/2014 Around the world Extortion Report, it was found that over 70% of bunches have been impacted through as a slightest one outline of fraud inside the past a year.

2.1 Forensic Auditing
In a forensic audit, the audit is constructed in such a way that evidence is obtained to show that fraud has occurred. The capacity required here is more than sufficient for internal or external audits to be carried out. Forensic audits are more rigorous than standard audits and are carried out in a sequence of processes to find out yet how to verify a claim as well as to find out the existence of any investigative work required (Grippo & Ibex, 2003). Thornhill (1995) suggested that forensic audits need a transparent and detailed audit plan that is planned to get information on how, when, and where a wrong deed occurred and who committed it. Forensic auditors apply the principles and methods of accounting to legal issues. They are concerned with using accounting as a framework to generate facts that can also be submitted to the court of law.

Moves to decide how and when to verify an accusation and to figure out the essence of every additional work necessary. Forensic audits require a transparent and detailed audit plan designed to gather information on how, when and where and who performed a wrong deed happened. Forensic auditors follow the rules and technologies of accounting to constitutional matters. They are obsessed with just using accounting to generate facts that can be used in the court of law as a discipline. While not very common in Pakistan, it has a specific function to detect corrupt practices committed within an entire organisation by an insider as well as any other person or organization that has any link with the entire organisation. A forensic review is performed within the field by an ace or ace for material affirmation, valuation confirmation, blackmail and untrue work out analysis, declaration with government controls,
contracts additionally to examine and enumerate other items, and the forensic auditor's report must be justifiable for use within the court.

They believe that person in order to perform forensic examinations and analysis “are specialists in the field with strong skill in criminology, accounting, anticorruption laws, communication, and investigation with the ability to think like a criminal.” (Ohaka & Edori, 2017).

2.2 Whistle-blower

A whistleblower is a person who identifies inside an entity that is either publicly or privately any kind of information or activity that is considered illegal, immoral, or not right. Details on suspected misconduct could be categorized in several ways: infringement of corporate policy/rules, legislation, legislation, or danger to the public interest/national security, and other financial fraud. When someone becomes a whistleblower, they may choose to make contributions or accusations to the surface, either internally or externally. The whistleblower may, from within, carry his/her charges in the interest of those within the limits of the organization, such as an appropriate person. Externally, by contacting a third party outside the alleged agency, such as the media, the government, the law enforcement authorities or those concerned, the whistleblower may bring forward claims. However, whistleblowers take the risk that significant censorship and retaliation will be met by those accused or suspected of wrongdoing.

Following a series of corporate scandals and subsequent legislation on whistleblower programs, recent studies provide evidence related to whistle blowing in uncovering detected financial frauds. Dyck et al. (2010) document types of whistleblowers. Although the corporate governance literature has given little attention to the governance role played by employees (Dyck et al. 2010; Rapp 2010), they are the most common type of whistleblower (12% of a 216 corporate fraud sample during 1996-2004), followed by media, analysts, and short-sellers. Bowen et al. (2010) investigated the characteristics of firms caught by employee whistleblowers, and the economic consequences of the whistle blowing events. It has been found these firms tend to be large and growing firms with relatively weak internal or external monitoring and have had recent employee layoffs. Most whistleblowers come forward for ethical reasons. For example, they choose to blow the whistle to maintain personal integrity, avoid complicity, and protect the public (Benabou and Tirole 2006; Arce 2010; Rapp 2012b). However, they simultaneously face great social and economic pressure to remain silent (Call et al. 2016).

2.3 Fraud control

Accounting writing records a few strategies for controlling extortion; none is conclusive as they contrast in step with the work of the extortion and environment of commission. In any case, foundation and executing inside control frameworks and State legislation's, play an exceptional work in their control. Particularly, the set up arrange of regulation structures such as exterior review, inside review, anti-fraud agencies/legislation, and review committees offer assistance in reducing the expense at which extortion is committed Sikka (2004) cited in Skillet et al (2011) recognized exterior review as a trust-engendering gadget, disappointment of which may moreover debilitate self-belief in corporate administration. Hence, viable outside audit-mechanisms are mounted to prevent extortion and development the self-assurance of buyers in endeavor additionally; a well foundations inward review division empowers to oversee fraud. From the perspectives of Pan et al (2011), the work of inner auditors is imperative since they include cost by upgrading the control and checking environment in businesses hit upon and record extortion or fraud.

According to Modugu & Anyaduba (2013), there's noteworthy assent among partners on the adequacy of legal bookkeeping in extortion control, making strides money related detailing, and inside control. Bookkeepers ought to, in this manner, be alarm to potential extortion and other unlawful exercises whereas performing their duties.

According to Bierstaker et al. (2006) found that indeed in spite of the fact that the organization's utilize
of forensic auditor or accountants is negligible for any extortion discovery and anticipation, it features a exceptionally fine rating of recommending the adequacy Albrecht and Zimbelman et al. (2012) observed period advances have chosen proactive shakedown disclosure procedures that analyze truths and exchanges to confine extortion signs in conjunction with plans, numbers, and other related variations from the norm.

Though Bierstaker, et al. (2006) concluded firewalls, watchword security and PC diseases are regularly utilized to combat extortion. Omar and Bakar (2012) run a study and comes about appeared that administration survey of inside controls and outside reviews of monetary articulations positioned as the top-most blackmail expectation rebellious in terms of the rate of nearness in organizations as seen by interior inspectors and fraud inspectors, taken after by operational surveys, inward surveys or extortion examination workplaces, and inward control review and changes by divisions.

2.4 Forensic Audit Impact on Fraud Control and Organizational Performance

Previous researcher’s investigations confirmations are fraud can be diminished with the help of audit and this activity result displays a positive impact on organizational performance. Ohaka & Edori, (2017) it claims that forensic auditor candidates are experts in the area of criminology, accounting, anti-corruption regulation, communication and investigation with the capacity to think like a criminal and can control fraudulent activities and can improve organizational performance. Forensic auditing is the key method that financial institutions should use to deter financial fraud in this regard and related risks and this forensic audit strategy reliefs to control fraud and due to audit, each staff participant of an organization performed efficiently and effectively.

H1: There is a Positive relation between the two forensic audit and fraud control.
H3: There is a Positive relation between the two forensic audit and organization performance.

2.5 Whistleblower Impact on Fraud Control and Organizational Performance

Earlier researches investigations exemplify Whistle blower’s person, who exposed any kind of organizational information. If whistleblower provides secure information’s to outward organizations then it will not be moral. But if anyone doing illegally in the organization and whistleblower report to the senior’s about such type of violation of company policy so, with the help of whistleblower CEOs can control this type of fraudulent activity and firms or organizations can be performed as good position. This type of whistleblower effect displays an optimistic impact on organizational performance and controlling fraudulent activities.

H2: There is a Positive relation between the two whistleblower and fraud control.
H4: There is a Positive relation between the two whistleblower and organizational performance.

The scope of conventional auditors’ work needs to be extended to include fraud detection in order to allow them to be a powerful force in corporate firms in terms of fraud management, prevention, and identification. Forensic auditors should be included during statutory audit. It is also notable, across all the results, that whistle-blowing policies, fraud hotlines, and forensic accountants are less widely used. The government should consider creating more fraud hotlines, strengthening whistle blowing policy, and developing a public sector forensic accounting department to improve the public sector fraud prevention system.

3. The Conceptual Framework

The conceptual structure makes distinctions and analyzes concepts and thoughts together in a way that is understood by the readers and knits the descriptions in question. The conceptual framework in this research is the impact of forensic auditing, traditional auditing and reporting on fraud control and organizational performance in Pakistan's corporate sector.
H1: There is a Positive relation between the two forensic audit and fraud control.
H2: There is a Positive relation between the two whistleblower and fraud control.
H3: There is a Positive relation between the two forensic audit and organization performance.
H4: There is a Positive relation between the two a whistleblower and organization Performance.

4. Methodology
The study used a deductive research approach. The deductive approach through analyzing the exploration presumptions (theory) and the inductive approach through concentrate the framework and gathering more data to encourage investigation.

4.1 Sampling
Data were collected from both the public and private sectors. The population of the study consisted of financial institutions in Multan. The sample was consist of managerial level employees in different public and private organizations. Convenient sampling techniques were utilized to select the respondents. Total of 230 questionnaires was distributed to both sectors, out of the total, 211 questionnaires received completed. In this research, primary and cross-sectional data were collected from the directors and managers of organizations and audit firms. According to (Li, 2016) for an infinite population, the sample size must be 10 to 50 for each variable. For time limitation, 230 sample size was taken for testing.

4.2 Data Collection Method
Data were collected by adopted questionnaires through surveys. A well-structured close-ended questionnaire was design based on three parts. First section introduces the purpose of the research to the respondents, the second section was consist of scales based on five points liker scale (ranging from strongly agree to strongly disagree). The last section got the demographic information from the respondents. The questionnaire was used for data collection from respondents to measure the positive relation between these four forensic auditing, whistleblower, organizational performance, and fraud control or minimize in both private and public sectors.

4.3 Instrumentation
In this research, a close-ended questionnaire used for measurement. The questionnaire was adapted for organizational performance from Venkatraman, N. (1985) theory based on the perception of profitability. It consists of eight items to measure organizational performance having Cronbach's alpha(α) value of 0.67 while the scale of fraud control was adopted from Saunders, Carol Stoak, and Jack William Jones (1992) consist of 7 items having the Cronbach alpha value 0.66. Similarly, the scale of forensic audit based on seven items was adopted Venkatraman, N. (1985) with alpha(α) value 0.62 while Six items scale used for whistleblower measurement was adopted from Berger, P. G., & Lee, H. (2019) having Cronbach's alpha(α) equal to 0.54. Overall questionnaire Cronbach's alpha(α) value is 0.77.
5. Data Analysis
SPSS software used for data coding and data analysis. Based on the relationship of the variables of study we used multiple regression analysis techniques for finding the cause and effect relationships between the variables (IVs and DV).

5.1 Results and Discussion

Table 1: Gender Distribution between the Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>187</td>
<td>88.6</td>
<td>88.6</td>
<td>88.6</td>
</tr>
<tr>
<td>Valid</td>
<td>Female</td>
<td>24</td>
<td>11.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Gender frequency Chart

Table 2: Age frequency distribution

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 years to 24 Years</td>
<td>46</td>
<td>21.8</td>
<td>21.8</td>
<td>21.8</td>
</tr>
<tr>
<td>25 years to 34 Years</td>
<td>133</td>
<td>63.0</td>
<td>63.0</td>
<td>84.8</td>
</tr>
<tr>
<td>Valid</td>
<td>35 years to 44 Years</td>
<td>27</td>
<td>12.8</td>
<td>12.8</td>
</tr>
<tr>
<td>45 years to Above</td>
<td>5</td>
<td>2.4</td>
<td>2.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows the age frequency distribution and Figure 3 depicts age frequency distribution in the sample. 15 years to 24 years old accountants, managers, and auditors were 46 out of 211 respondents having percentage 21.8% of whole sample size and 25 years to 34 years frequency 133 respondents, representing 63% and 35 to 44 years respondents were n=27 shows 12.8% and 45 years to above ages respondents were only 5 means 2.4% of the whole sample.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Graduate</td>
<td>50</td>
<td>23.7</td>
<td>23.7</td>
<td>23.7</td>
</tr>
<tr>
<td>Bachelors</td>
<td>60</td>
<td>28.4</td>
<td>28.4</td>
<td>52.1</td>
</tr>
<tr>
<td>Masters</td>
<td>101</td>
<td>47.9</td>
<td>47.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 shows education distribution, the highest qualified managers were equal to Master's degree N=101, 47.9% of the whole sample. Matriculation educationist accountants were nil%, graduates
respondents were 50, 23.7%. Some auditors and financial experts were masters and PhDs. Degree holders. Masters and Ph.D were 101, 47.9% and 0% respectively.

**Table 4: Fraud Control as the Dependent Variable**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.332(^a)</td>
<td>.110</td>
<td>.102</td>
<td>5.053</td>
<td>1.482</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Forensic audit, Whistleblowing  
\(^b\) Dependent variable: Fraud control

Table 4 revealed fraud control as dependent variables; the Durbin Watson (DW) statistic is a test for autocorrelation in the residual from a statistical regression analysis. The Durbin-Watson statistic will always have a value between 0 and 4. A value of 2.0 means that there is no autocorrelation detected in the value between 0 and 4. A value from 0 to less than 2 indicates positive autocorrelation and values from 2 to 1 indicate negative autocorrelation. The table shows that there is not any problem of serial autocorrelation because the value is in the range of 1.5 to 2.5. The Adjusted R\(^2\) gives us the idea of how well our model generalizes and its values should be closed to R\(^2\) values. Large F ratios prove model fit and significant. F changes values establish a fit of the regression model. R square value of 0.11 is better revealing the impact of forensic audit and whistle blowing of fraud control in Pakistani organizations.

**Table 5: ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>658.073</td>
<td>2</td>
<td>329.037</td>
<td>12.885</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>5311.633</td>
<td>208</td>
<td>25.537</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5969.706</td>
<td>210</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Dependent variable: Fraud control  
\(^b\) Predictors: (Constant), Forensic audit, Whistleblowing

Table 5 of ANOVA presents the conclusions of the variance analysis. It shows that there is a positive relationship among the observed and predicted values. Since the significance value of the F statistic is small (smaller than say 0.05), the independent variables (Forensic Audit and Whistle Blowing) do a good job explaining the variation in the dependent variable (Fraud Control). It shows the model fitness.

**Table 6: Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>1  (Constant)</td>
<td>16.79</td>
<td>2.781</td>
<td></td>
<td>6.039</td>
<td>.000</td>
<td>11.312</td>
</tr>
<tr>
<td>Whistleblowing</td>
<td>.345</td>
<td>.077</td>
<td>.307</td>
<td>4.493</td>
<td>.000</td>
<td>.194</td>
</tr>
<tr>
<td>Forensic audit</td>
<td>.085</td>
<td>.089</td>
<td>.065</td>
<td>.952</td>
<td>.342</td>
<td>.091</td>
</tr>
</tbody>
</table>

\(^a\) Dependent variable: Fraud control

Table 6 shows the results of the calculation of the basic method regression coefficients. The standardized \(\beta\) values tell us the number of standard deviations that, due to one standard deviation change in the predictor variable, the result will change. The coefficient table 6 includes the model (regression equation) coefficients and the \(p\)-values for each independent variable. The output shows that the interaction is significant for whistle blowing on fraud control. The whistleblower helps to control the frauds in the organizations. They help to identify
the fraud which can be curbed through effective policies by the top management. While the forensic audit does not play a role to stop the fraud. It might be because fraud happens before the forensic audit is carried out in Pakistan.

Table 7: Organization Performance as the Dependent Variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.272a</td>
<td>.074</td>
<td>.065</td>
<td>4.598</td>
<td>1.536</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Forensic audit, Whistleblowing

Table 7 shows a weak R square value for the impact of forensic audit and whistle blowing on organization performance. The Durbin Watson value is in the range which confirms that there no sign of serial autocorrelation in the data.

Table 8: ANOVAa

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>351.574</td>
<td>2</td>
<td>175.787</td>
<td>8.316</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>4396.606</td>
<td>208</td>
<td>21.138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4748.180</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organization performance
b. Predictors: (Constant), Forensic audit, Whistleblowing

The table shows a good model fit by sig. value of 0.00 which is far lower than the threshold value of 0.05. Moreover, the residual value has been higher than expected showing a weak impact of independent variables in explaining the variations in organization performance.

Table 9: Coefficientsa

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>22.04</td>
<td>2.530</td>
<td></td>
<td>8.711</td>
</tr>
<tr>
<td>Whistleblowing</td>
<td>.246</td>
<td>.070</td>
<td>.245</td>
<td>3.517</td>
</tr>
<tr>
<td>Forensic audit</td>
<td>.077</td>
<td>.081</td>
<td>.066</td>
<td>.951</td>
</tr>
</tbody>
</table>

a. Dependent variable: Organization performance

Table 9 revealed again that the whistleblowing has a positive relationship with organization performance. The information about fraud helps the organization to grow. While the forensic audit does not affect the organization performance as the sig value has come higher than the threshold value of 0.05. VIF value is below 10 which confirm that there is no problem of multicollinearity in the data.

6. Conclusion and Recommendation

The study quantified the impact of auditing in fraud control in corporate associations utilizing traditional auditing and forensic auditing as the independent variables while fraud control was used as the dependent variable. The study found that while conventional auditing is common in Pakistan's corporate organizations, forensic auditing is unpopular and in its infancy. Hypotheses have however been developed to assess if whistle blowing and forensic auditing have a significant connection with fraud control and whether forensic auditing is more compelling than traditional auditing to identify fraud in corporate organizations. The analysis revealed a significant association between the independent variables and the dependent variable (whistle blowing) (fraud control). The study also found that forensic auditing is more accurate than standard auditing in the detection of fraud in corporate organizations. Above data, interpretation of results shows the relationship between forensic auditing and fraud control in the private and public sector are not strongly co-related. The relationship between whistle blowing and organization performance in the private and public sector have a significant
relationship. The unique contribution of this paper is that it addresses the effects of Forensic auditing on the performance of financial organizations in Pakistan, upon which most banks and businesses in a developing economy ought to adapt to mitigate financial irregularities. The contribution/importance of professional forensic accountants cannot be overemphasized, whether to the public sector or the private sector. The purpose of this study is to examine Forensic auditing as a tool for fraud detection and prevention in the public sector organizations and firm performance concerning Multan financial organizations. Accordingly, the researchers concluded that whistle blowing, forensic auditing and fraud control are a major trend that should be taken seriously by corporate organizations.

7. Recommendation and Limitations
This research conducted in Multan, Pakistan due to time and cost. In future for study, data collected KSE and can be conducted in non-financial institutions and production departments.

In all corporate organizations, traditional and standerd auditing should be improved by training and retraining of personnel or staff. The scope and range of the study of forensic auditors to include the detection of fraud needs to be expanded to enable them to be a major weapon in corporate organizations in terms of fraud management, prevention and identification.

Employment of forensic auditors in corporate organization and steady preparing of such personnel or staff to be overhauled in which present day innovation and modern ways or area of committing fraud and their cures. The forensic audit ought to be included within the statutory review report. Currently ICAP (Institute of Chartered Accountant Of Pakistan) work on this issue and only one institution in Pakistan who give professional training and knowledge of forensic audit and give a certificate to qualify members IFAP (Institute Of Forensic Accountant Of Pakistan). On the other hand, the organization must strike the whistleblower safety policies, as the whistleblower improves the fraud control in the organization. Moreover, whistleblowers enhance organization performance by curing fraud and malpractices in organizations.

Reference


Revisiting the Dividend and Investment Puzzle: 
An International Review using US Corporate Governance Data

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ARTICLE DETAILS

Revised format: November 2020
Available Online: December 2020

Keywords
Dividend (imputation) policy, tax (free), capital investment, board of director remuneration, corporate profitability, corporate governance.

JEL Classification:
G35, G32, G34, C33

ABSTRACT

This explanatory comparative review uses pooled regression, weighted least squares and GLS panel analysis on 943 listed US firms (2005-2009), while examining the effect of corporate governance (good and questionable), profitability and sales revenue on dividends and investment, seeking to examine the different aspects of the dividend and investment puzzle. After rigorous robust scrutiny, the research empirically endorses the claim that Corporate governance pursue investment decision, while curbing dividend payout, profoundly by questionable corporate governance; cash dividends are seldom given in the US. Sales Revenue (and the firm’s value) boost investments, while its positive influence on dividends is insignificant. All other tactics impede Dividend policy, most profoundly by the firm’s value. Taxable income impedes investment. On the other hand, the firm’s value and sales revenue do significantly influence corporate investment decisions, as postulated by the pecking order, capital structure substitution and residual theories. The empirical results reveal the latent capitalization/expensing ploy used by listed firms. Results suggest that US firms prefer investing funds generated from sales revenue, while expensing off tax deductible profits, thus benefiting from both the virtues of capital investment and expensing. Tax implication as well as the fallacy of dividend avoidance is also examined, apart from recommending policy for regulatory authorities as well as governors (board of directors) of firms to pursue.

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1. Introduction - The Evolution of Dividends

“The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don’t fit together.”

(Fischer Black, 1976, The Dividend Puzzle)

Since the dawn of the corporate era, dividend policy has been constantly evolving. The pioneer incorporated enterprises were free of the notion of dividends. The first American corporation (Frankfurter, Wood & Wansley, 2003), The New London Society United for Trade and Commerce, was established in 1732; there is lack of evidence pointing towards a dividend policy. In 1776 (although originally founded in 1760), the Union Warf Company of New Haven, became the second company to be incorporated in the United States. The first cooperation with modern corporate features was chartered in 1768 – The Philadelphia Contribution for the Insuring of Houses from loss by fire. Earnings were used for expanding operation, as there were significant growth opportunities. It was not until the 18th Century that we find evidence for dividends. Gradually cash dividends acquired the prime directive status of conservative investors. However, the emerging corporate trend is devoid of cash dividends (Skinner, 2008), strictly based on repurchases.

Lintners’s (1956) pioneering work established an association between earning and dividend. The Miller-Modigliani dividend model (1961) stressed the irrelevance of dividends in a corporate world devoid of tax (Copeland & Weston, 1992) and transactional costs, with flourishing information asymmetry. When corporate and individual taxes were introduced Farar and Selwyn (1967) argued in favor of anti-dividend policy, propagated as the best course of action (Brennan, 1970). Many researchers (like Shaffer, 2001) question the wisdom of dividends in light of the double taxation regulation. Perhaps, dividends finance investors preferred consumption streams under certain conditions. Or perhaps, because a specific kind of dividend smoothing facilitates dynamic portfolio insurance in the face of risk-free security alternatives. Or have minority shareholder rights and interests permeated regulatory bodies? Big US companies like Microsoft- as a policy did not pay dividends! Should it be required by law?

1.1 The Dividend Puzzle

The theorems of Modigliani-Miller (1959 &1961) constitute the basic foundation of capital structure in finance; the market price of the firm is not influenced by the financial structure of the firm. This theorem of capital structure lead to the evolution of the dividend puzzle; investors overvalue firms that issue dividends, although firm valuation should remain the same where the firm’s payout dividend or reinvests it. Fischer Black (1976) set out to put the different piece of the dividend puzzle together, but only succeeded in concluding that the different pieces do not fit together. The dividend puzzle stemming from the theorem is tantamount to saying that the financial decision of the firm does not affect its valuation. Miller and Scholes (1978) added a cautious note to the Miller-Modigliani (1961) theory, by suggesting that to a large extent, dividends would be sheltered from tax. Of course, it was not until 2003 that the Bush Administration lowered dividend taxes, while Australia and New Zealand, and in their own right, the British had already introduced dividend imputations.

1.2 Dividend Policy

History has witnessed different dividend policies; stable dividend-per-share policy, constant dividend payout ratio, a compromise policy, and the residual-dividend policy. Fama and Babiak (1968) investigated many different models for analyzing dividend behavior, using a sample of 201 companies, during the period 1947 to 1964. Of the numerous models they tested, Lintner’s model and a similar model that suppresses the constant term and adds a term for the lagged level of earnings, were the best. Fama and French (2001) have also noticed a significant drop in cash dividends, from 66.5% in 1978 to 20.8% in 1999. Amongst other things the research notes that the listing of newer small firms, with growth opportunities many be one reason for this drop. Skinner (2008) identified three distinct categories of dividend payouts policy: (i) companies that pay dividends and also make regular
repurchases, (ii) companies that make regular repurchases, (iii) companies that make occasional repurchases. A purely dividend pay-out policy only is extinct; the emerging trend is that of repurchases.

In the post-Lintner period, significant research has been conducted to establish a relationship (Simons, 1994) between operating cashflows, earning and dividend, however, without much success. In last decade, attention has shifted towards cashflow reporting. Charitou and Vafeas (1998) re-evaluated prior studies to empirically establish the notion that dividend changes-cashflow correlation is both significant as well as positive when cashflow are less in comparison to earnings, and when the corporation’s growth is moderate.

2. Literature Review

Ferris, Jayaraman, and Sabherwal (2009) test an international sample of twenty-three countries, only to find that evidence of dividend catering is amongst those companies incorporated in common law countries, but not for those incorporated in civil law countries. The study found that dividend catering was evident in countries of common law, when legislation (with investor protection), in an environment in which investor demanded dividend (from the management) and placed a high value on dividend paying firms. Further, the study found that in countries of civil law, that the failure to cater dividends was evident in the consumption of private benefit of control or a lack of interest in responding to temporary market misevaluation of equity.

Braggion and Moore (2011) in a historical (1895 - 1905) analysis of 469 British firms, found strong support for asymmetric information/signaling theories of dividend policy, as they operated in the absence of institutional parameters and minimal taxes. The study also found little support for the agency problem. Howe and Lin (1992) empirically tested the inverse relationship between dividend yield and bid-ask spread. Mitton (2004) used a sample of 365 firms from 19 countries to establish a strong correlation between strong corporate governance and higher dividend payouts, in accordance with the agency models of dividends. The findings hold for countries with strong investor protection. DeAngelo, DeAngelo and Stultz (2006) tested and verified the life-cycle theory with respect to dividend policy. A highly significant relationship exists between decision to pay dividends and the earned/contributed capital mix, after controlling for variable like profitability, growth, size, total equity dividend history, etc. The study uses regresional analysis to demonstrate that the ratio of earned/contributed capital has an empirically greater effect than measures of profitability and growth. Christie and Nanda (1994) examined the effect of the unexpected tax imposed by the US federal government on undistributed corporate profits. Denis and Osobov (2008) examined the propensity to pay dividends in the US, Canada, France, Germany, and Japan. In general, the findings support agency cost-based lifecycle theories, while questioning signaling, clientele, and catering explanations of dividend. Goergen, Renneboog, and Correia da Silva (2004) compared dividend pay-out ratio of German firms (based on cash flow) to UK and USA firms. Liljeblom and Pasternack (2006) studied the variables that determine share repurchases and dividend in Finland.

2.1 Taxation Policy on Dividend, Investment and Valuation

Numerous studies have analyzed the effect of taxation policy (Halperin, 1983; Alli, Khan & Ramirez, 1993; Collins & Kemsley, 2000; Bond et al., 2003; Guenther & Sansing, 2006; Grubert, 2009) on dividend, investment and valuation. Halperin (1983) examined how the perceived instability of taxation legislation affects consumption-investment decisions. Alli, Khan and Ramirez (1993) used factor analysis and multiple regression (a two-step procedure) to test alternative explanations of dividend policy. Over all the results supported the tax clientele theory. Grubert (2009) investigated the effect of residual home country tax policy on dividends from foreign subsidiaries, as well as tax holidays and the burden of the repatriation tax. The findings of the research were inconsistent with the Hartman-Sinn ‘New View’ as well as the Weichenreider and Altschuler-Grubert repatriation avoidance models. Sterk and Vandenbergh (1990), as well as Long (1987) and Poterba’s (1986) Citizen Utilities case, conclude that the taxation policy does in fact influence valuation. Boyce and Riddle (2008) gave two innovative
viable alternatives (taxable dividends and tax-free dividends) to the US government carbon cap policy. Harris, Hubbard, Glenn and Kemsley (2000) analyzed the hypothesis that dividend taxes are structured in stock prices and focused on the implicit evaluation of the investor on taxable retained earnings and tax-free paid-in equity. Bond (et al., 2003) examined the effect of firm and shareholder tax, as well as Meade’s (1978) R1 and S2 based tax flows, in light of uncertainty, default and shutting down. The study also shed light on issues related to tax avoidance.

Guenther and Sansing (2006) used a model that includes the investment and payout decisions of a company, in light of the investment options available to investors, in order to investigate how shareholder-level taxes are reflected in stock prices. In the model used, capitalization of tax is not eliminated by the presence of tax-exempt investors; further it does not depend on whether the equity is constituted by retain earning or contributed capital, nor by the taxation bracket of the hypothetical marginal investor. Leibrecht, Ballak and Wild (2009) explored the effect of dividend taxes on the dividends repatriated from foreign affiliates to their parent German firm. The study utilized Deutsche Bundesbank’s firm-level data from Microdatabase Direct Investment (MiDi), on an augmented model ofLintner’s dividend determination. The study focuses on cross-border intra-firm dividend payment in the manufacturing sector of wholly owned foreign affiliates. The research vindicated the Lintner Model, and the augmented Lintner model implied an increasing negative relationship between dividend taxes and the expected value of dividend repatriation.

2.2 Dividends, Capital Structure, Cash Flow, Stock Price and Repurchase
Many studies (Bank, Cheffina, & Goergen, 2009; Corina, Mirela & Mihaela, 2009; Dann, 1981; Gugler, 2003; Goergen, Renneboog, & Correia da Silva, 2004; Skinner, 2008) have also analyzed the relationship between dividends, stock price, cash flow, debt structure, as well as repurchasing of stock. For example, Dann (1981) examined the response of repurchasing common stock on the value of the repurchasing company’s common stock, debt and preferred stock. The study further examined the main causes of the valuation change. The primary factor identified is an informational signal from the repurchasing firm. Corina, Mirela and Mihaela (2009) investigated the amount of dividend to be paid out to investors by the firm, and the effect of the dividend policy on the stock price. The study also investigates a core area of finance, as it examines the management’s dividend policy with the goal of valuation maximization for the shareholders, while creating adequate funds for the firm.

Sethi (1996) used a generalized form of the Miller-Modigliani (1961) framework to equate the stock price with the present value of future dividends. Blau and Fuller (2008) developed a model of corporate dividend policy and generated numerous testable predictions. The model is based on the notion that the management values operating flexibility. In stark contrast to UK and USA firms, German firms base their dividend on cash flow (Goergen, Renneboog, & Correia da Silva, 2004) rather than on long run target payout ratios. In the German corporate scenario cash flow dictate dividend policy; published earnings do not form the basis of the dividend policy. This is a derivate of the conservative atmosphere of German accounting principles, coupled with the fact that published earnings do not accurately measure corporate performance, as German firms retain earnings to build legal reserves. Further, German Firms are ready to cut dividends in response to diminishing profitability, rather than the prevail policy of USA and UK firms to issue frequent small dividend payouts.

1 Meade (1978) uses ‘R’ to denote a corporate tax base including all transactions in real goods and services and financial services, but excluding financial transactions with shareholders (Chapter 12, p. 230).
2 Meade (1978) uses ‘S’ to denote a corporate tax base including only all financial transaction with shareholders (Chapter 12, p. 233).
Gugler (2003) investigated the relationship between dividend policy, ownership and control structure of the firm. The study focused on Austrian firms during the period of 1991 – 1999. In a similar study, Gugler and Yurtoglu (2003) offer a new explanation of why dividends may be informative, based on empirical evidence from 736 dividend change announcements (for the period 1992 - 1998) of German firms. The study utilizes information on the ownership and control structure of German firms, in order to test the research hypothesis and compare it to the cash flow signaling explanation. Bank, Cheffina, and Goergen (2009) augment Lintner’s dividend determination model by focusing on the determinants of dividend policy in UK publicly listed corporations, during the period 1949 -2002. The enhanced models accommodate political factors; the model is tested using aggregate annual dividends and earnings data. The research found that that neither the political placement of the ruling party nor the regulations clearly stipulated to check corporate behavior were in accordance to theories of corporate governance dividend policy. This deviation in finding over a 53-year period is considerable significant, as it challenges many predictions of generally accepted corporate governance norms. Skinner (2008) investigated the relationship between earnings and dividend payout policy over the last three decades. The research identifies categories of dividend policy and concludes that the repurchases are currently the most popular form of payouts. Interestingly, the research points out that the classical dividend payout policy is now extinct.

2.3 Country Specific Studies
Dewenter, Warther, and Vincent (1998) compared Japanese and American company dividend policies; the Japanese firms were categorized into keiretsu, independent, and hybrid. The study examined the correlation between dividend changes and stock returns, and the reluctance to change dividends. Researchers have studied different aspect of dividends in numerous countries, using various statistical techniques. Mehar (2005) investigated corporate governance and dividend policy of 180 firms listed on the Karachi Stock Exchange for the period 1994 – 2001, using the Ordinary Least Square (OLS) technique. The study gives many discrete recommendations to the regulatory authorities, with regards to improving corporate governance and dividend policy (in the Pakistani context).

Franc-Dabrowska (2009) utilized descriptive statistics and financial analysis, as well as a fixed effect model to test the hypothesis that the firm’s management minimizes dividend payments based on a hierarch theory, as it prefers internal avenues of financing economic growth opportunities. The study was interested in the hierarchy and substitution theories (of Capital Structure) as applied in dividend policy of Polish agriculture and foodstuff companies during the 2001 to 2006 period. Benzinho (2004) used panel data regresional, time-series and cross-sectional observations to estimate the Lintner model on firms that trade on the Portuguese Lisbon Stock Exchange (Euronext Lisbon). The study tests for stable smoothing dividend policy, which tend to be more characteristic of developed countries. Pang, Yu, Troutt, and Hou (2008) developed a simulation-based approach to study the coefficient of variation of dividend yields, comparing the results with the traditional approach, using the Hang Seng index and its sub-indexes. Brooks and Helms (1990) developed a dividend discount model that allowed as many growth periods are required, using an equation that could easily be programmed, and provide prompt results. The study recommends the Newton-Rapson algorithm as a method for estimating the required rate of return.

2.4 US Dividend Policy Different
It is evident from the review of literature that while dividends are becoming scare in the US, in the rest of the world, both developed and emerging markets, dividends continue to play a significant part. Thus, it is important to ascertain the status of dividends in the US from a governance and tactical perspective, while also analyzing the alternative corporate governance perspective – retaining capital for investment. Once this is determined, the implications of such a reality will be analyzed in light of existing literature.

3. Methodology
3.1 Data and Variable Description
The research utilizes the balanced panel data set of 943 US listed corporation for the 2005 to 2009 time period of Mehboob (2019a). The data sample of 4,715 was derived from three sources, namely: Standard and Poors’ Execucomp, Compustat Annual Financial database, and KLD Social Rating. The research will use the variables of the Mahboob (2019a): Pre-tax income (PI), Total annual director Remuneration (COMP), Good Corporate Governance (GCG), and Questionable Corporate Governance (QCG), in addition to the following variables: dividend (DVD), pretax income (PI), total revenue (REVT), investment (ICAPT), and market capitalization (MC). The description of the variables is:

COMP - The total annual director Remuneration is the total remuneration (salary, bonus and other perks) of all the executive (director, CEO or CFO) in a year for a listed firm.

DVD – dividend: total annual cash dividend issued by a firm. This is zero for many firms.

GCG - Good Corporate Governance: is a positive integer aggregate (0 to 15) of the following governance strengths: product, environment, human rights, community, employee relations, and corporate governance; zero signifying no corporate governance strengths.

ICAPT – The amount invested by the firm.

MC - Market capitalization: is the product of the stock price and the number of outstanding shares of a listed US firm.

PI – Pretax Income: the net income before the deduction of (income) tax.

QCG - Questionable Corporate Governance: is a positive integer aggregate (0 to 14) of the following governance concerns: product, environment, human rights, alcohol, tobacco, gambling, firearms, nuclear, employee relations, and corporate governance; zero signifying no corporate governance concerns.

REVT- The total sales revenue for the financial year.

3.2 Balanced Panel Analysis Pretests

Prior to conducting panel analysis, the following pretests are conducted: [i] multicollinearity, [ii] Breusch-Pagan LM, and [iii] Hausman test, after which panel analysis is conducted, using these three tests: [i] Pooled Ordinary Least Squares, [ii] fixed effect, and [iii] Weighted Least Squares.

3.2.1 Multi-Collinearity

Multicollinearity (Gujarati, 2004) is generally not an issue for panel data sets. Nevertheless, the data models were cleared of collinearity issues, as tabulated in Tables 4.1 and 4.2, well within the stipulated ten value.

<table>
<thead>
<tr>
<th>Independent variables:</th>
<th>Model 1 (Governance Effect)</th>
<th>Model 2 (Pro-Dividend Tactics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Corporate Governance</td>
<td>-3,130,543</td>
<td>-0.625</td>
</tr>
<tr>
<td>Questionable Corporate Governance</td>
<td>-6,489,106</td>
<td>-1.232</td>
</tr>
<tr>
<td>All BOD Compensation</td>
<td>-0.214</td>
<td>-0.348</td>
</tr>
<tr>
<td>Intercept (constant)</td>
<td>115,373,411</td>
<td>10.390</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>4.563</td>
<td>-0.00046</td>
</tr>
<tr>
<td>Pretax Income</td>
<td>3.869</td>
<td>0.001053</td>
</tr>
<tr>
<td>Total Sales</td>
<td>2.406</td>
<td>0.000271</td>
</tr>
</tbody>
</table>
Invested Capital  2.343  -0.00027  -0.464  †
Time Periods  5  5
Cross-sections  943  943
Observations  4,715  4,715
Adjusted R-squared  0.000  0.000
F-Stats  1.633  †  0.467  †
Breusch-Pagan LM test  0.735  †  0.677  †

Notes: * indicates significance at 1% level. † indicate insignificance at more than 10% level.

3.2.2 Breusch-Pagan LM Test
The Breusch-Pagan LM test was conducted on the first two models (Table 4.1), indicating a preference for panel pooled estimates. The null hypotheses were accepted, indicating an insignificant variance ($v_i$) across the cross-sections, which represent firms, with a chi-square value of less than one each. Thus, it can be safely assumed (Gujarat, 2004) that the data across different firms is not too different. However, the assumptions of the slope coefficients and constant intercepts are very restricted.

The Breusch-Pagan LM test on models 3 and 4 (Table 4.2) showed a preference for panel GLS (Generalized Least Squares). In these tests the null hypotheses were rejected, signifying a significant variance ($v_i$) across the cross-sections, which represent firms, with high chi-square values (Table 4.2), at a significance level of less than 1%.

3.2.3 Hausman Test
The consistency of the GLS models 3 and 4 was probed by the Hausman test (Hausman 1978). The Hausman test indicated that a GLS fixed effect model (Table 4.2) will be more consistent (with a chi-squared values of about 242 and 393, at a significance level of less than 1%), as per Equation 1:

$$y_{it} = X_{it}\beta_1 + X_{it}\beta_2 + X_{it}\beta_3 + u_{it}$$

Where $y_{it}$ is the dependent variable – invested capital during the period $t$ for the firm $i$ (cross-section); $X_{it}$ is a vector of independent variables for the period $t$ and firm $i$; $\beta_i$ is a $k \times 1$ vector of parameters, $u_{it}$ and is an error or distribution term specific to $i$ firms in time period $t$.

For a fixed effect model, the unitary pooled error term ($u_{it}$) is decomposed into a unit specific and time-invariant component ($\alpha_i$) and $\varepsilon_{it}$ an observational specific error (Equation 2):

$$y_{it} = X_{it}\beta_1 + \alpha_i + \varepsilon_{it}$$

$u_{it}$ (Equation 1) is decomposed into a unit-specific and time-invariant component $\alpha_i$, and an observation-specific error $\varepsilon_{it}$. When estimating unit-specific y-interests, the $\alpha_i$s are considered fixed parameters. Thus, the group effect hypothesis is not tested in fixed effect models; estimation of the remaining parameters is made. As a result, the effect of time-invariant regressors are ignored.

**TABLE 4.2: Corporate Tactics & Governance (Using Fixed Effect) On Investment**

<table>
<thead>
<tr>
<th>Dependent Variable: Investment</th>
<th>Model 3a (Governance Effect)</th>
<th>Model 4a (Pro-Investment Tactics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables:</td>
<td>Coefficient</td>
<td>T-Stats</td>
</tr>
<tr>
<td>Good Corporate Governance</td>
<td>414,375,383</td>
<td>3.086</td>
</tr>
</tbody>
</table>

973
### Table 1: Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (x̄)</th>
<th>Standard Deviation (σ)</th>
<th>N</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionable Corporate Governance</td>
<td>589,527,444</td>
<td>4.030</td>
<td>1.524</td>
<td></td>
</tr>
<tr>
<td>All BOD Compensation</td>
<td>35.571</td>
<td>3.668</td>
<td>1.384</td>
<td></td>
</tr>
<tr>
<td>Intercept (constant)</td>
<td>3,556,700,529</td>
<td>12.030</td>
<td>1.92E+09</td>
<td>10.798</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>3.843</td>
<td>-0.0168</td>
<td>-1.432</td>
<td></td>
</tr>
<tr>
<td>Pretax Income</td>
<td>3.83</td>
<td>-0.28009</td>
<td>-3.854</td>
<td></td>
</tr>
<tr>
<td>Total Sales</td>
<td>2.066</td>
<td>0.574558</td>
<td>24.116</td>
<td></td>
</tr>
<tr>
<td>Time Periods</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-sections</td>
<td>943</td>
<td>943</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>4,715</td>
<td>4,715</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.947</td>
<td>0.953</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Stats</td>
<td>89.568</td>
<td>*</td>
<td>102.917</td>
<td>*</td>
</tr>
<tr>
<td>Breusch-Pagan LM test</td>
<td>7,628.760</td>
<td>*</td>
<td>6,639.840</td>
<td>*</td>
</tr>
<tr>
<td>Hausman test</td>
<td>242.143</td>
<td>*</td>
<td>393.337</td>
<td>*</td>
</tr>
</tbody>
</table>

Notes: * indicates significance at 1 % level. † indicate insignificance at more than 10% level. (Source: Authors estimation)

### 3.3 Pooled Ordinary Least Squares – Models 1 and 2

All 4,715 observations are analyzed in a common regression, regardless of the variation that may arise from different time periods. Thus, pooled regression (Gujarati, 2004:280) assumes the same intercept and slope coefficient remains the same for all five years.

The effect of corporate governance on dividends was tested by taking the three corporate governance variables – (i) the board of directors’ compensation (COMP), (ii) GCG and (iii) QCG, as the regressors, and dividend as the regressand using pooled regression (as determined in equation 1):

\[
DVD_{it} = \alpha_i + GCG_{it} \beta_{GCG} + QCG_{it} \beta_{QCG} + COMP_{it} \beta_{COMP} + \epsilon_{it} \quad (3a)
\]

Equation 3a (above) can be rewritten with its coefficients as (Equation 3b):

\[
DVD = 115,373,411 - 3,130,543 GCG - 6,489,106 QCG - 0.214 COMP \quad (3b)
\]

The effect of corporate tactics on dividends was tested by taking the four tactical variables with firms tend to focus on optimizing: – (i) the market capitalization of the firm (MC), (ii) pretax income (PI) (iii) total sales (REVT) and (iv) and invested capital (ICAPT), as the regressors, and dividend as the regressand using pooled regression (as determined in equation 1):

\[
DVD_{it} = \alpha_i + MC_{it} \beta_{MC} + PI_{it} \beta_{PI} + REVT_{it} \beta_{REVT} + ICAPT_{it} \beta_{ICAPT} + \epsilon_{it} \quad (4a)
\]

Equation 4a (above) can be rewritten with its coefficients as (Equation 4b):

\[
DVD = 102,085,050 - 0.00046 MC + 0.00105 PI + 0.00027 REVT - 0.00027 ICAPT \quad (4b)
\]

Both models point to the same results, with different coefficients: none of the independent variables has any significant effect on dividends. If anything, all three corporate governance variables have a negative and insignificant effect on dividend; QCG more than twice the negative (yet insignificant) effect than GCG on dividend. Likewise, in line with theory both firm valuation and investment have negative and insignificant effect on dividend; sales and profitability have positive and insignificant effect. All regressors in both models have an insignificant effect on dividend, rendering both models insignificant, in addition to offering very little explanation for changes in dividend.
3.4 Panel Analysis using GLS
Using OLS would be inefficient for panel data analysis (Baltagi, 1995), as the data set does not fulfill the assumptions of the Gauss-Markov theorem. GLS is more robust in providing coefficient estimates for simple cross-section or time series (Gujrati, 2004), apart from minimizing the bias into broad aggregates, which are primarily due to the large number of firms – 943; it is more informative and variable, with more degrees of freedom, and less collinearity issues (Gujrati, 2004); it is more apt to analyzing the dynamics of changes that arise due to repetition of cross-sectional observations. Further, the covariance structure of the error term can be probed with greater efficiency, making the technique the most suitable under the circumstances (Gujrati, 2004). Nevertheless, one must know the limitations and drawback of panel analysis; fortunately, the analysis only includes three independent variables.

The effect of corporate governance on investment was tested by taking the three corporate governance variables – (i) the board of directors compensation (COMP), (ii) GCG and (iii) QCG, as the regressors, and invested capital as the regressand using fixed effect (as determined in equation 2):

\[ I_{CAPT_i} = \alpha_i + GCG_i \beta_{GCG} + QCG_i \beta_{QCG} + COMP_i \beta_{COMP} + \varepsilon_i \]  (5a)

Equation 5a (above) can be rewritten with its coefficients as (Equation 5b):

\[ I_{CAPT} = 3,556,700,529 + 414,375,383 (GCG) + 589,527,444 (QCG) + 35.57 (COMP) \]  (5b)

The X\_it\_s and β\_s of Equation 2 are replaced by the respective independent variables, GCG, QCG and COMP, as given in Equations 5a & 5b. The dependent y\_it\_ is replaced by ICAPT\_it. The effect of corporate tactics on investment was tested by taking the three variables – (i) market capitalization of the firm (MC), (ii) pretax income (PI), and (iii) total sales revenue (REVT), as the regressors, and invested capital as the regressand using fixed effect (as determined in equation 2):

\[ I_{CAPT_i} = \alpha_i + MC_i \beta_{MC} + PI_i \beta_{PI} + REVT_i \beta_{REVT} + \varepsilon_i \]  (6a)

Equation 6a (above) can be rewritten with its coefficients as (Equation 6b):

\[ I_{CAPT} = 1,920,877,936 - 0.0168 (MC) - 0.28 (PI) + 0.5746 (REVT) \]  (6b)

The X\_it\_s and β\_s of Equation 2 are replaced by the respective independent variables, MC, PI and REVT, as given in Equations 6a and 6b. The dependent y\_it\_ is replaced by ICAPT\_it.

3.5 Weighted Least Squares (WLS)
For robust estimation, free of any unknown heteroscedastic that may arise in panel fixed effect (Stock & Watson, 2008) models (Equation 5 & 6), especially since the time span is more than two years (with numerous firms), Weighted Least Squares estimation (Greene, 2002; Gujarati, 2004) would be appropriate. Thus, Equations 5 and 6 are tested using Weighted Least Squares (WLS), give the following results with their respective coefficients (Equations 7b & 8b):

\[ I_{CAPT} = -12,535,000,000 + 2,044,760,000 (GCG) + 6,280,770,000 (QCG) + 266.89 (COMP) \]  (7b)

\[ I_{CAPT} = -342,975,000 + 0.346 (MC) - 0.605 (PI) + 0.363 (REVT) \]  (8b)

Both models (Table 4.3) as well as all six variables in them are significant at 1%, with decent chi-square values.

3.6 Rigorous Empirical Scrutiny
To ensure robust scrutiny of the investment models, rigorous statistical diagnostics will be used in addition to WLS (Stock & Watson, 2008); heteroskedasticity-free analysis, granger causality, LOESS - Locally estimated Scatterplot Smoothing (Cleveland & Delvin, 1986) and goodness of fit selection.
superficial dividends by US listed firms are a consequence of the board of directors, the firms’
good and questionable governance, market valuation, pre-tax income, and investment, although
in an insignificant way; the negative effect of questionable governance and market value play a
significant role in curbing dividends. Only sales have a positive and significant influence on
fostering a dividend policy.

4. Results

Figure 4.1: Factors Preventing Dividend Policy

Investment decisions by US listed firms are a consequence of the board of directors, the firms’
good and questionable governance, market capitalization and sales revenue; pre-tax
profits hamper investments, possibly in favor of expensing preference.
4.1 US Firms – Pro-Investment and Dividend Avoidance Preference

In line with the residual and pecking order theories of dividends, US corporate governance positively and significantly influence investment decision(s); Table 4.8 summarizes the results. These investment decisions (Table 4.2 –Model 3a; Table 4.3 – Model 3b; Table 4.5 - Models 5a & 5b; Figure 4.2) by the board of directors are reflected in their decision to abandon cash dividend (Table 4.1 – Model 1a; Table 4.6 – Model 6; Table 4.7-Model 7a &7b; Figure 4.1). Results clearly establish an insignificant and negative effect of corporate governance on dividends (Table 4.1 –Model 1; Table 4.6 - Model 6). Thus, it is clear that corporate directors follow a pro-investment strategy (Table 4.2 –Model 3a; Table 4.5 – Model 5a & 5b), at the expense of dividend (Table 4.1 – Model 1; Table 4.6 – Model 6; Table 4.7 – Models 7a & 7b) – practically making cash dividend extinct; Graph 4.1 depicts the inverse relation between dividends and investment. This corporate governance approach in the US may be, simply because the directors (Rose, 2007; Kumar & Zattoni, 2018) are legally bound to safeguard their investors’ interests and pursue a policy to maximize internally generated fund for investment. Further, the role of managerial skills (García-Sánchez & García-Meca, 2018) in formulating ideal investment pronouncements cannot be over stressed; indeed, their skills and knowledge base play a major role.

Rigorous econometric data scrutiny (Table 4.1; Table 4.6) confirm that the board of directors, good and questionable governance oppose dividends. While the negative influence of the board and good governance is insignificant, the curbing influence of questionable governance is profound; likewise, profitability and firm value also opposes dividend, as is evident for the WLS and heteroskedasticity free model (Table 4.5-Model 5a & 5b; Model 4.7 -Models 7a & 7b), after accounting for goodness of fit scrutiny, when determining model selection (Akaike, 1974; Akaike, 1985; Boisbunon, Canu,
Fourdrinier, Strawderman & Well, 2014). If anything, the latent support of sales revenue supports the argument for dividends. Thus, in line with theory if availability of funds permit, dividend might be considered, as evident by the scanty superficial dividends by some firms.

Graph 4.1: Dividend & Investment Inverse Relationship (LOESS Fit)

The corporate governance of US firms clearly exhibits a significant appetite for investment of capital (Table 4.2 – Model 3a; Table 4.3 – Model 3b). While the fixed effect model (3a, Equation 5) exhibits a somewhat codominant effect of good and questionable governance on investment, the WLS model (3b, Equation 7) reveals a recessive effect of good corporate governance in the presence of dominant effect of questionable governance on investment; questionable corporate governance has a three times greater effect on investment, as compared to good corporate governance.

<table>
<thead>
<tr>
<th>Dependent Variable: Investment</th>
<th>Model 6 (Heteroskedasticity-corrected, 4715 observations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables:</td>
<td>Coefficient</td>
</tr>
<tr>
<td>const</td>
<td>112,770,140</td>
</tr>
<tr>
<td>GCG</td>
<td>-901,504</td>
</tr>
<tr>
<td>QCG</td>
<td>-6,522,518</td>
</tr>
<tr>
<td>BOD Compensation</td>
<td>-0.284</td>
</tr>
</tbody>
</table>

Statistics based on the weighted data
Adjusted R-squared 0.006 Akaike criterion 29639.81
F(3, 4711) 9.705 Schwarz criterion 29665.64
Results are further strengthened (Cleveland & Delvin, 1988) by Locally estimated Scatterplot Smoothing (LOESS) graphical representation (Graph 4.1), which depicts an inverse relationship between dividends and investment, with few firms opting in favor of dividends. The use of LOESS is justified by the relatively large dataset (Cleveland & Delvin, 1988).

4.2 Management Flexibility and Dividends
Researchers have long documented corporate management preference for flexibility, especially with more (retained) capital and a preference for dividendless policy. Blau and Fuller’s (2008) model of corporate dividend policy generated testable predictions. Management generally values flexibility; flexibility depend on operating cash; the availability of which is maximized in the absence of dividends. While the ability to invest in opportunistic growth projects is enhances, it costs shareholders in terms of reduced share prices. Franc-Dabrowska (2009) found that the management of the firm minimizes dividend payment based on the hierarchy theory, as it prefers to use internally generated funds for growth opportunities. In 1936, in spite of the incentives shaped (Christie & Nanda, 1994) by unexpected federal tax on retained income, the growth of dividends was lower in firms associated with higher agency costs. Nevertheless, the fundamental role managerial skills and expertise have in accomplishing investment initiatives is vital, as confirmed by recent empirical research (García-Sánchez & García-Meca, 2018). Empirical results confirm earlier findings (Tables 4.1 – 4.6), that managers prefer flexibility to retain dividends.

4.3 US Governance follow a Pro-Investment Preference under Influence of QCG
Jensen, Solberg and Zorn (1992) empirically proved that when high insider ownership prevails in the firm, debt and dividends are lower. In order to keep out potential investors and lenders from meddling (Corina, Mirela and Mihaela, 2009) with the governance of the firm, the management prefers to build mountain of retained earnings for investment opportunities, thus minimizing or avoiding dividends; our research findings strengthens these earlier researches (Tables 4.1, 4.2 & 4.3). Interestingly, questionable governance when compared to good governance have a more profound influence on investment; according to Equation 5 by a factor of about 1.4, and three times according to Equation 7. It would seem that questionable governance practices exert more influence than good governance, possibly resulting in more accumulated retained earnings, transforming into pyramids of capital. Thus, in this regard - retaining profits for reinvestment, it would seem that questionable corporate governance seems dominant; good corporate governance is recessive. Presumable the superior skills of managers may possibly be influencing investments, under the latent guise of questionable governance.

Table 4.7: Unravelling the US Dividend Puzzle

<table>
<thead>
<tr>
<th>Dependent Variable: Dividend</th>
<th>Model 7a (Heteroskedasticity-corrected)</th>
<th>Model 7b (Panel Weighted least Squares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables:</td>
<td>Coefficient</td>
<td>T-Stats</td>
</tr>
<tr>
<td>const</td>
<td>101484791.3</td>
<td>12.40782</td>
</tr>
<tr>
<td>ICAPT</td>
<td>-5.60E-05</td>
<td>-0.17506</td>
</tr>
<tr>
<td>MC</td>
<td>-0.000323604</td>
<td>-0.90178</td>
</tr>
<tr>
<td>PI</td>
<td>0.000535878</td>
<td>0.118321</td>
</tr>
<tr>
<td>REVT</td>
<td>-7.23E-05</td>
<td>-0.11282</td>
</tr>
</tbody>
</table>

Using 4715 observations (943 cross-sectional firms & 5 time periods)
Weights based on per-unit error variances
Statistics based on the weighted data

<table>
<thead>
<tr>
<th></th>
<th>Adjusted R-squared</th>
<th>F(4, 4710)</th>
<th>P-value(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.000524034</td>
<td>1.617897596</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>0.006935958</td>
<td>9.231117502</td>
<td>*</td>
</tr>
<tr>
<td>Akaike criterion</td>
<td>29957.45099</td>
<td>10463.18984</td>
<td></td>
</tr>
<tr>
<td>Schwarz criterion</td>
<td>29989.74351</td>
<td>10495.48236</td>
<td></td>
</tr>
<tr>
<td>Hannan-Quinn</td>
<td>29968.80271</td>
<td>10474.54157</td>
<td></td>
</tr>
</tbody>
</table>

Notes: * indicates significance at 1% level; ** at 5% level, † indicate insignificance at more than 10% level.

Figure 4.3: Corporate Governance Preference

The Corporate Governance preference of US listed firms is to avoid dividend payout, in preference of investments. Questionable governance plays a dominant role, while good corporate governance plays a recessive role in curbing cash dividends.

4.4 Revenues Boost Investment

The corporate tactics used demonstrate a significant effect on investment of capital (Table 4.2 – Model 4a; Table 4.3 – Model 4b; Table 4.5 – Model 5a & 5b; Figure 4.2; Graph 4.2). Managers tend to boost sales which tends to also boost investments; investments boost sales, establishing a positive bi-directional spiraling relationship. This phenomenon is confirmed by the two way pairwise Granger Causality test (Table 4.4), LOESS graph (Graph 4.2) as well as Pearson coefficient correlation. The coefficient correlation test value of about 0.68 at 1% significance level is established by the Pearson test, between sales and investment; this would be classified (Buda & Jarynowski, 2010; Weathington, Cunningham, & Pittenger, 2012) in the high positive correlation category. These empirical results suggest a high positive bidirectional correlation between investment and sales. Thus, it is not surprising to find capital pyramids that eventually turn into monopolized capital, controlling numerous companies; pursuing the pecking order theory leads to capital monopoly. The sales/investment paradigm may also stem for the superior investment decision making skills of managers (García-Sánchez & García-Meca, 2018).
4.5 Market Capitalization and Investment

In 1962, Gordon (1962) empirically analyzed the neoclassic theory of corporate investment to achieve the corporate objective – maximize shareholder value, establishing a positive relationship. However, later researchers (Jensen, 1986; Griffin, 1988) argued that excess availability of fund to managers leads to unwise investment decisions, which in turn damage the firm’s valuation. Strong and Meyers (1989) report a negative relationship between discretionary investment and investor returns price in the US paper industry; however, a positive link was established between investment (acquisition) and valuation. Similarly, our results seem a bit murky initially. An increase in the market value of the corporation seems to have a negative (Table 4.2 – Model 4a; Figure 4.2), but insignificant effect on investment. However, the more robust WLS estimation (Table 4.3 – Model 4b; Table 4.5 – Model 5a & 5b) and heteroskedasticity-corrected model reveals that the firm’s market capitalization has a significant positive effect on investment. In line with previous studies, the firms market capitalization increases investment. In retrospect of the rigorous empirical tests, it is difficult to validate (García-Sánchez & García-Meca, 2018), that with increased market capitalization, managers in their investment decisions might become a bit complacent, but our framework is not designed to highlight such subtle latent relationships.
### Table 4.5: Unravelling the US Investment Puzzle

<table>
<thead>
<tr>
<th>Dependent Variable: Investment</th>
<th>Model 5a (Heteroskedasticity-corrected)</th>
<th>Model 5b (Panel Weighted least Squares)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>T-Stats</td>
</tr>
<tr>
<td>Const</td>
<td>-14,250,814</td>
<td>-0.410 †</td>
</tr>
<tr>
<td>PI</td>
<td>-1.274</td>
<td>16.666 *</td>
</tr>
<tr>
<td>REVT</td>
<td>0.281</td>
<td>22.761 *</td>
</tr>
<tr>
<td>MC</td>
<td>0.562</td>
<td>50.619 *</td>
</tr>
</tbody>
</table>

Weights based on per-unit error variances

Using 4715 observations (943 cross-sectional firms & 5 time periods)

Statistics based on the weighted data

- Adjusted R-squared: 0.661 vs. 0.792
- F(3, 4711): 3,065 vs. 5,987
- P-value(F): * vs. *

Akaike criterion: 20,578 vs. 11,337
Schwarz criterion: 20,604 vs. 11,363
Hannan-Quinn: 20,588 vs. 11,346

Notes: * indicates significance at 1 % level. † indicate insignificance at more than 10% level.

### 4.6 Profits Diminish Investments

The research empirical findings suggest that profits (Table 4.2, Model 4a; Table 4.3 – Model 4b; Figure 4.2; Table 4.5 – Models 5a & 5b) tend to have a significant negative effect on investment (Fazzari and Petersen, 1993); probably focusing more on operating capital. This could be because investor tend to be short sighted at times, and prefer delaying capital expenditures, while favoring short term operating capital strategies, that may involve tax deductible loans which are instrumental in bringing down the weighted average cost of capital.

However, corporate US profitability has a significant negative effect on investment (Table 4.2 – Model 4a; Table4.3 – Model 4b; Table 4.5 - Model 5a & 5b; Figure 4.2); the more robust panel WLS reveals that profitability tends to reduce investment by about twice as much – about 60%, while the heteroskedastic-corrected model suggests hampering investment by 120%. This would suggest that the overwhelming corporate governance policy is not to invest profits; in fact, empirical results would suggest that profits decrease investment.

Fazzari and Petersen (1993) while investigating the neglected role of working capital had interesting findings. Since working capital competes with fixed investment, from a pool of finance, the coefficient of endogenous working capital is negative for fixed-investment regression. In the short term, working capital is used to smooth fixed investment, thus many studies have reported a constraint on growth and investment.
So, what happens to profits if they are not invested or given as dividend to investors? The only plausible explanation would be that profits are expensed off where tax deductible, in order to avoid taxation. Some profits may be expensed off as (Coffee 2005; Denis, Hanouna & Sarin, 2006) incentive, perks, bonuses to executives, and stock options (Boumosleh, 2009) especially if they happen to be major investors as well. Conyon and He (2012) document a clear positive connection between CEO remuneration and corporate profit and market capitalization. In the Japanese scenario, Colpan and Yoshikawa (2012) report a direct link between executive bonuses and profit; Sakawa, Moriyama and Watanabel (2012) relate that incentive-based compensation to be more effective for firms with more foreign investors.

4.7 Capitalization and Expensing Latent Ploy?
Empirical results seem to point towards a latent ploy by the firm’s higher echelons, gaining from the virtues of investment capitalization as well as the benefits of tax-deductible expenses. Revenue generated proceeds are channeled towards investment – capitalization, while profits are expensed off. Researchers (Bierman & Dukes, 1975; Ball, 1980; Dukes, Dyckman & Elliot, 1980; Elliott, Richardson, Dyckman & Dukes, 1984; Kothari, Laguerre & Leone, 2002) have long analyzed the capitalization versus expensing debate, but it seems that firms tend to use both; extracting benefits from both options. This is an area that requires further research, especially in light of García-Sánchez and García-Meca (2018), emphasizing the pivotal role of managerial skills in investment decision.

4.8 Corporate Ownership Influences Dividend Policy
In the US firms prefer more managerial flexibility (Blau & Fuller, 2008; Franc-Dabrowska, 2009), and exhibit a preference for retaining capital (Tables 4.1, 4.2, & 4.3); thus, avoiding dividends. However, in other countries dividends are still used. For example, in Austria (Gugler, 2003), while state owned companies paid dividend, family-controlled firms had a significant lower payout ratio. In crisis situations, while family-controlled firms evaded dividends, state-controlled entities were reluctant to change their pro-dividend policy. On the contrary, companies with low growth opportunities hand out dividends, no matter who controlled them.

4.9 The Case for Dividends
While it is clear that US firms overwhelming prefer pro-investment policies, at the expense of weeding out dividends, the need arises to analyze the state of affairs in other countries. To the astonishment of many US corporate strategists, companies with strong corporate governance were not only more profitable (Mitton, 2004), but also had higher dividend payout ratios. However, these findings are only possible in countries with strong investor protection. A strong but negative relationship was established between dividend payout and growth opportunities; the negative correlation is more for firm with better governance. Bena and Hanousek (2008) in a cross-sectional analysis of Czech Republic firms for the period 1996 – 2003, found that in case of bad corporate governance, the majority shareholder would extract rent and expropriate minority shareholder rights, as well as minimize dividends. DeAngelo, DeAngelo and Stultz (2006) findings were also in line with the life-cycle theory of dividends -firms with a high percentage of retained earnings also had high dividend pay-out ratios.

Arnott and Asness (2003) take the low dividend payouts of US firms an indication of strong earnings growth; the study challenges the notion that amassing retained earnings at the expense of dividends does not result in rapid future growth. Regulators should consider the long-term consequences of firms maximizing internally generated funds in the pursuance of the pecking order theory of dividend, as it would lead to capital monopoly, with possible dire consequences for healthy competition.

4.10 The Fallacy of Dividend Avoidance
Collings and Kemsley (2000) argue that dividends are instrumental in removing the capital gains tax on reinvested income. In absolute terms, this is really a latent advantage for the investor, as capital gains
tax, in addition to corporate taxes seem like a punishment for investors finding the opportunity to invest in profitable corporations.

Denis and Osobov (2008) found that dividends were characteristic of larger, more profitable firms, whose retained earnings comprised a larger portion of total equity (Mehar, 2005). Financial failures have been the main culprit to cause a decline in dividends. However, in the Japanese corporate landscape, dividend abandonment and failure to initiate (by nonpayers) are economically unimportant. Dewenter, Warther, and Vincent (1998) found that Japanese corporations faced less stock price reactions to dividend commencement and abandonment, because they are less prone to reducing and omitting dividends. Further, their dividend payout is more reflective of the change in earnings. Japanese companies, especially Keiretsu-members, firms face less information asymmetries and less agency problems (which affect dividend policy), as compared to US corporations.

More foreign ownership becomes a major factor in the repurchasing of shares (Liljeblom & Pasternack, 2006), as a result of dissimilar tax policy for domestic and foreign investors in Finland. Cash distributions were explained in light of the signaling and agency cost theories. In cases where options were dividend protected, the relationship between dividend payout and the scope of the program were significantly positive, although US data report a negative correlation. Dividend cause stock prices and trading volume (Yilmaz & Gulay, 2006) to rise a few sessions before cash dividend payments, and on the ex-dividend day. Common stock repurchasing information (Denis, 1981) from the firm also helps boost the company valuation- the ultimate desire of any shareholder.

Gugler and Yurtoglu (2003) found evidence that severe conflict exists between the majority controlling shareholder block and the small outside minority shareholders (Mehar 2005). Empirically the study (Gugler & Yurtoglu, 2003) documented a 2% point’s reduction for firms where the ownership and control structure made expropriation of minority shareholders more likely. The rent extraction hypothesis has different implications, varying with the levels of dividends paid out. An increase in dividend pay-out ratio increased for the second largest shareholder, while a reduction was noted for the largest group. In accordance to Lintner’s (1956) model of dividend determination, the second largest shareholder block with significant equity made a critical difference in the governance of the firm. Further, a negative correlation was established between abandoning the one-share-one vote rule to pyramidal and cross-ownership structures, resulting in larger negative wealth effects and lower dividend pay-out ratios.

Lippert, Nixon, and Pilotte (2000) found that by binding management remuneration to valuation of the firm, the usual positive price response to dividend is supposed to increase due to a couple of reasons. Firstly, by increasing pay-performance sensitivity (PPS) exacerbates management’s positive predisposition concerning future company performance, minimizing the integrity of dividend signals. Secondly, by increasing pay-performance sensitivity minimizes the need for dividend as a method of minimizing agency costs. Price sensitivity decreases as pay-performance sensitivity increases, especially in corporations with low market-to-book ratios, in line with behavioral and agency theories. Borokhovich, Brunarshi, Harman and Kehr (2005) also found evidence to support the hypothesis that dividends help reduce the agency problem; however, they reported lack of evidence to support the notion that increasing dividend would further reduce the agency problem.

4.11 Do Taxes Hinder Dividends?
Taxation affects the valuation of the firm (Guenther & Sansing, 2006), both directly and indirectly. Taxes reduce both the variance and mean of after-tax returns - an issue of immediate concern to shareholders. Further, taxes cut into the profitability of the firm, affecting investment decisions, as well as corporate expenses. The implicit valuation (Collins & Kemsley, 2000) of retained earnings is diminished by capital gains and dividend taxes. They also reduce the dividend and retained earning equity from the investor valuation perspective. Leibrecht, Ballak and Wild (2009) found that a
percentage increase in the tax-rate on dividends, resulted in a 3.5% decrease in repatriation of dividend payment. Alli, Khan and Ramirez (1993) also found support for the tax clientele theory of dividend manipulation, pecking order argument, transaction cost/residual theory, the significant role of dividends in mitigating agency problem, as well as a significant role of the management in affecting the company’s payout ratio. The research also supported the premise that firms that enjoy financial stability maintain stable dividend policy. Individual dividend tax was reduced (not eliminated) in the tax reform of 2003 (in the US), undermining the justification of insiders (Morck & Yeung, 2005) to build reservoirs of retained earnings. Halperin (1983) found that in case of high tax law uncertainty, closely held firms tend to increase the salary of owner-managers, while showing an urgency for planning corporate decisions. Most researches have suggested that dividend policy is a factor of the tax regulation. However, Wang, Erickson and Gau (1993) have found that real estate investment trusts (REITs) have higher dividend payout ratios than what is required by taxation regulation.

In support of dividend tax capitalization, the US company-level results of Harris, Hubbard, Glenn and Kemsley (2000) point to the fact that accumulated retained earnings estimated less than paid-in equity. Further, disparity amongst dividend tax rates throughout different states in America, are linked with predictable differences in the degree of the implied tax discount for retain earnings, just as there are varying dividend tax rates in Australia, India, Japan, France, Germany, Pakistan and United Kingdom. In comparison to the American shareholders (Jun et al., 2008), the Australian residents are tax-advantaged, especially in their access to imputation tax credits on Australian stocks. However, Fazzari (1998) argues that tax reformation, despite its success in reducing the cost of capital, will have a very limited effect on the corporate world as well as on economic growth and investment.

In a study of emerging markets Aivazian (et al., 2003) found that firms exhibited similar dividend behavior, when analyzed in light of profitability, debt, and market-to-book ratio. On the contrary, empirical analysis of dividend policy portray different structures; an indication of the differing sensitivities to these variables. Since emerging markets rely more on bank loans, the firm are influenced by the asset mix.

5. Conclusion
The early 19th Century devoid of institutional parameters and minimal tax (Braggion & Moore, 2011), witnessed healthy dividend payouts. Corporate dividend policy is highly influenced (Copeland and Weston, 1992; Alli, Khan & Ramirez, 1993) by tax legislature (Sterk & Vandenberg, 1990; Collins & Kemsley, 2000). Leibrecht, Ballak and Wild (2009) empirically report a 3.5% loss in repatriation for a single percentage increase in tax. Taxes cut into the profitability of the firm (Collins & Kemsley, 2000; Guenther & Sansing, 2006), an issue of concern to shareholders; taxes naturally affect investment issues and dividend policy. However, investors price dividend taxes into stock prices (Harris, Hubbard, Glenn & Kemsley, 2000), distinguishing between taxable retain earning and tax-free paid-in equity. In fact, dividends (Collins & Kemsley, 2000) serve as a safer passage for capital to return into the hands of investors, as it eliminates the further possibility of corporate and capital gains taxes, on reinvested profits.

Closely held firms, when faced with uncertain tax legislation (Halperin, 1983), tend to increase management salaries; likewise, there is a sense of urgency when taking decisions. However, REITs are an exception (Wang, Erickson & Gau, 1993) as they handout more dividends than required by law.

Table 4.8: Summary of Corporate Tactics & Governance on Dividend & Investment

<table>
<thead>
<tr>
<th>Corporate Governance Influence on Dividend Policy &amp; Investment Decisions</th>
<th>Dividend</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD Compensation</td>
<td>Negative, but insignificant</td>
<td>Positive</td>
</tr>
</tbody>
</table>
Corporate governance pursues investment decision, while curbing dividend payout, profoundly by questionable corporate governance.

**Corporate Tactics Influence on Dividend Policy & Investment Decisions**

<table>
<thead>
<tr>
<th>Dividend</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>Negative, but insignificant</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>Negative</td>
</tr>
<tr>
<td>Pre-Tax Income</td>
<td>Negative, but insignificant</td>
</tr>
<tr>
<td>Sales Revenue</td>
<td>Positive, but insignificant</td>
</tr>
</tbody>
</table>

Sales Revenue (and the firm’s value) boost investments, while its positive influence on dividends is insignificant. All other tactics impede Dividend policy, most profoundly by the firm’s value. Taxable income impedes investment.

Fama and French (2001) have documented a significant drop (45.7%) in cash dividend over a twenty-year period (1978-1999), even though investors have a preference (Shefrin & Statman, 1984) for cash dividends. In line with previous research (Skinner, 2008) and the residual theory of dividend, traditional cash only dividend are now near extinction in the United States. Thus, the effect of corporate governance and tactics on dividend is overwhelmingly negative and insignificant (Table 4.1 - Models 1 & 2; Figure 4.1: Table 4.6 -Model 6; Model 4.7 – Model 7a & 7b). Questionable corporate governance casts a profound influence on curbing dividends (Table 4.6 & Model 6). The vibrant corporate governance strategy is not entirely focused on investment capital; firms tend to use the strong positive bidirectional relationship (Table 4.4; Graph 4.2) between sales and investment to ensure growth; in the long run, as per the pecking order theory of dividends, results in retaining and amassing capital. However, profitability tends to limit investment (Table 4.2 – Model 4a; Table 4.3 -Model 4b; Table 4.5 – Model 5a & 5b; Figure 4.2), possibly in favor of short-term tactics that focus on operating capital, like tax deductible loans, or taxable director/management incentives, which effectively help in lowering the cost of capital. Empirically results suggest that US firms seek to invest funds generated from sales, while expensing off proceeds from profit, benefitting from both capital investment and expensing. Further, repurchasing has become the new trend, seemingly in line with the capital structure substitution theory – the capital structure is manipulated in favor of maximizing the earnings per share.

In general (Corina, Mirela & Mihaela, 2009), shareholders accept the dividend policy of the management, as endorsed by the board of directors, or sell their shares. The residual theory states that dividend should be paid out (Corina, Mirela & Mihaela, 2009) when a project with positive net present value cannot be found. Pro-dividend and higher pay-out ratios reflective of earnings (Dewenter, Warther, & Vincent, 1998) help eradicate volatile stock price fluctuation due to anti-dividend policy. Further, a more vocal and active pro-dividend policy (Howe & Lin, 1992) may also reduce the bid-ask spread. Robust empirical results (Table 4.7 – Model 7a & 7b) support the argument for higher sales revenue allowing a dividend payout possibility, especially for smaller firms with less valuation and profitability.

The empirical findings (Table 4.5 – Models 5a & 5b) validate the notion that corporate management (Alli, Khan & Ramirez, 1993) play their part in shaping the dividend policy, especially the pay-out ratio. Management value flexibility, meaning more operating cash for growth initiatives (Blau & Fuller, 2008; Franc-Dabrowska, 2009), and less for dividends. While the honest intuition of management may result in long term sustained profitability and growth, it might be at the cost of a dip in the current stock price.
Not only is the cost of capital minimized by building mountains of retained earnings (Corina, Mirela & Mihaela, 2009), but also as a means of keeping out new investors and lenders, and thus limiting outsider intervention in the affairs of the governance. Binding managerial remuneration (Lippert, Nixon & Pilote, 2000) with stock price, does not help the dividend cause either.

Boyce and Riddle (2008) gives thought provoking alternatives of tax-free and taxable dividends, as viable progressive alternatives of the government carbon cap policy. However, one interesting thing that does come to light is the pro-investor policy of tax-free dividend policy. This is definitely an innovative financial concept that governmental regulatory authorities shy away from, as the government’s nutritious budget may initially face deficiency.

In line with the life-cycle theory, firms with more retained earnings with respect to total equity (DeAngelo, DeAngelo & Stultz, 2006; Denis & Osobov, 2008) also pursue high dividend payouts policies. In short, financially healthy firms (Alli, Khan & Ramirez, 1993; Pourheydari, 2009) pursue pro-dividend policy. Small firms, with little paid up capital exhibit the chronic characteristic of dividend avoidance (Mehar, 2005), as they rely heavy on retained earnings for expansion. However, with the exception of Japan, dividend abandonment (Denis & Osobov, 2008) and failure to initiate (by non-payers) are economically unimportant. Japanese firms are less prone (Dewenter, Warther & Vincent, 1998) to dividend omission and minimization, and their dividend pay-out ratio is more reflective of earnings; thus, they experience less volatility in stock prices due to dividend policy.

German firms issue dividends based on cash flow, unlike UK and USA firms (Goergen, Renneboog, & Correia da Silva, 2004) which are based on actual earnings projected onto long term payout ratios. For German firms, in cases of diminishing profitability, dividends are cut, as opposed to the “smoothness” dividend policy of UK and USA firms. Firms listed on the Euronext Lisbon (Benzinho, 2004) tend to follow relatively smooth cash dividend policy. Poorly performing Hong Kong firms (Cheng et al., 2008) pay cash dividends as per the maturity hypothesis and free cash flow hypothesis; however, they do not support the cash channeling hypothesis.

Austrian state-owned firms tend to be more pro-dividend (Gugler 2003), while family-controlled firms tend to avoid or minimize dividend pay-out. Concentration of ownership (Mehar, 2005) is an important determinant of dividend policy. Debt and dividend both tend to be reduced (Jensen, Solberg & Zorn, 1992) in cases of high insider ownership. Higher managerial membership (Zhang, 2008) on the board of directors’ results in less cash dividends in Mainland Chinese firms, as the agency problem is magnified. On the contrary Chinese and local firms in Hong Kong had a higher dividend payout ratio. Stock prices and trading volume tend to swell (Yilmaz & Gulay, 2006) as the dividend pay approaches. In case of repurchases, informational signal (Dann, 1981) is the primary factor to boosting valuation. On the other hand, they do significantly influence corporate investment decisions, as postulated by the pecking order, capital structure substitution and residual theories.

The empirical results seem to validate the pecking order, capital structure and residual theories, as well as complimenting empirical finding of research (García-Sánchez & García-Meca, 2018). Thus, the financial incentives of the board of directors, as well as both good and questionable corporate governance prefer a cash dividend avoidance policy; however, their role in the questionable governance decision making to mitigate dividends is obvious (Table 4.6 – Model 6) and undeniable. Further, investment decisions, the firm value and profitability also obstruct cash dividend policy, as it is evident that US prefer a dividend avoidance policy. In conformance with previous studies, big profitable firms generally avoid cash dividend payout. Dividend policy finds support from sales revenue, while governance (whether good or questionable), firm value, profitability and investment argue for dividend avoidance.

Extending the implied results of (García-Sánchez & García-Meca, 2018), it would seem that investment
decisions are influenced by sales, the financial incentives of directors, good and questionable governance, presumable utilizing the talent and skill of managers in making optimal investment decisions. However, profitability and market valuation of the firm tend to hamper investment decisions. It would seem that while firms prefer to capitalize sales, they try to hide away profits as expenses. In a highly ethical world, the governance mechanism to funnel sales revenue into investment, while evaporating profits into expense, would raise eyebrows, especially by taxation regulators, perhaps the least idealist classifying the governance stunt as questionable. Although the empirical results are base on a five-years’ time span (2005 – 2009), it does shed light on the capitalization/expensing riddle, while investigating the dividend puzzle.

6. Research Implications and Recommendations

The key to reviving the near extinct cash dividend may now have entered the realm of governmental regulators. The concept of double taxes has had a detrimental effect (Guenther & Sansing, 2006), Leibrecht, Ballak and Wild (2009) on dividends, although few would disagree (Fazzari, 1999). If policy makers do not look into amending double taxes on dividends, the result may be the oblivion of cash dividends, from this current position of near extinction. Dividend avoidance leads to corporate capital monopoly (Gugler & Yurtoglu, 2003; Morck & Yeung, 2005).

Weak corporate governance results in large shareholders (Bena & Hanousek, 2008) extracting rent and expropriating minority shareholders, as well as minimizing dividends. Even the unexpected US federal tax on retained corporate profits of 1936 witnessed (Christie & Nanda, 1994) a lower growth rate in firms embroiled in the agency problem.

Contrary to the research findings, (Mitton, 2004) suggests strong corporate governance correlates positively with higher dividend payout, and overall profitability in countries with strict investor protection. Improving corporate governance (Bena & Hanousek, 2008), more particularity the agency problem, will go a long way to improving the firm is several aspects; dividends reduce the agency cost (Borokhovich et al., 2005). Involving the second largest shareholder (Gugler & Yurtoglu, 2003) in corporate governance may prove to be a crucial strategic option. Lowering managerial membership on the board reduces (Zhang, 2008) the agency problem, and results in improved dividend payout ratio.

Superior innovative corporate governance should cultivate a highly aggressive lean mean negative working capital mechanism, significantly increasing return on capital, as well as freeing up valuable operating capital for growth opportunities as well as dividend payouts. While transformation to a negative working capital may not be easy (Shin & Soenen, 1998), a realistic goal of near zero working capital may be possible in the near short term. In these regards, management efficiency and effectiveness (Stewart & Stern, 1991) can be measured by Economic Value Added (EVA) and market-Value Added (MVA). EVA is a good tool to measure managerial effectiveness over a given period, while MVA evaluates the management from the firm’s inception.

Regulator bodies should foster polices, regulations and laws to promote dividends; otherwise the strong bidirectional spiraling relationship between sales-investment will continue to result in corporate capital monopolization, while some corporate profits could find their way to (investor) directors and management. This could be achieved by curbing, if not eliminating dividend related taxes. Instigating a tax-free dividend policy (Boyce & Riddle, 2008) may go a long way to revitalizing dwindling economies. Or more innovatively, redistributing carbon emission revenue to household as taxable dividends, may be a revolutionary technique to benefit the majority of the people, apart from propelling progressive development. Boyce and Riddle (2008) suggestion is one of many interesting possibilities.

Why must regimes tax corporation? Why not simply: “earners keeps!” In fact, one could argue that governments are supposed to provide a pro-investment environment. Would a tax-free corporate environment propel unparalleled investment growth? Or should the nation and corporations labor diligently to feed the government and regulatory authorities? The blindly enforced and followed status
quo taxation wisdom must be questioned. Surely, countries with superior governance not only survive but also flourish pursuing minimal or tax-free agenda. While Corporate taxes may not be abolished any time soon, mitigating dividend tax regime should be investigated. However, Fazzari (1998) argues that tax reformation, despite its success in reducing the cost of capital, will have a very limited effect on the corporate world as well as on economic growth and investment.

Inter-corporate dividend taxes (Morck & Yeung, 2005) assist in discouraging the formation of pyramidal corporate groupings. Developing countries should study the implementation of the Roosevelt era tax in breaking up corporate groupings. Like the US tax reforms of 2003 (Morck & Yeung, 2005) and the pre-1995 Modarbah (Mehar, 2005) dividend tax exemption in Pakistan, should be pursued by the taxation bodies, minimizing or even eliminating dividend taxes for individuals. In this regard, the Australian dividend imputation may be a step in the right direction. By binding director and management remuneration (Lippert, Nixon & Pilotte, 2000) to stock price, valuation of the firm will increase, and the dividend policy will be disciplined and balanced between investments and payouts, thus also protecting minority shareholder rights. If the management is really sincere in its proactive evaluation of investment project(s), then there should not be too much left over for dividend (Lippert, Nixon & Pilotte, 2000); the investor, nevertheless, should be satisfied by the elevated stock price. Further, utilizing managerial expertise (García-Sánchez & García-Meca, 2018) can help bolster more optimum investment decisions.

Firms should not abandon the one-share-one vote principle (Gugler & Yurtoglu, 2003) to pyramidal and cross-ownership structures as it correlates with negative valuation of the firm. Granting limited voting rights to common shareholders (Partch, 1987) may be a step in the right direction, without negatively affecting existing shareholders. Further, Australian corporations use a corporate senate (Mehar, 2005) which has the right to amend the recommendations of the board of directors, should be analyzed. The ballots are assessed on a one-shareholder one-vote basis, rather than one-share-one vote basis.

If state owned enterprises can afford to be pro-dividend, then tightly controlled family ventures and corporation should also be whole-heartedly pro-dividend, especially since the Modigliani-Miller argument that dividend policy is irrelevant from the valuation perspective to the investor!

Regulatory authorities, along with global accounting bodies, should review the capitalization/expensing regulation and standards, so as to limit the questionable maneuvering of sales revenue into investment pools, while expensing away profits. Regulator authorities may consider mandating clawback provisions (Lin, 2017), to deter questionable governance practices, especially with regards to investment decisions.

7. Future Studies
Future studies should analyses the latent ploy of investing proceeds of revenue and expensing off profits, with macro datasets spanning numerous business cycles; optimizing the revenue/investment and profit/expensing tunnel mechanism seems to set the stage for corporate supremacy, which is an area that requires indebt analysis and investigation.

Researchers should also focus on studying the effect of the Roosevelt era (Morck & Yeung, 2005) intercorporate tax in other countries, especially developing countries, on discouraging the formation of pyramidal corporate groups. Likewise, the effect of introducing the Bush era tax reforms, which reduced individual dividend tax should also be investigated. Investigating whether non-US investors factor dividend taxation (Harris, Hubbard, Glenn & Kemsley 2000) into the price, and distinguish between taxable retained earnings and tax-free paid-in equity. Building on the study of Shin and Soenen (1998) MVA and EVA should be used to evaluate the corporate governance and dividend policy of firms in their working capital mechanism deployed. Consistent with previous studies, the results should strengthen the notion that firms with aggressive negative working capital policy have strong corporate governance, and operate in counties with investor protection, in addition to exhibiting good EVA and ROC figures.
Bibliography


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**Impact of Pakistan Bait-Ul-Mal on the Satisfaction Level of the Beneficiaries**

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<th>ABSTRACT</th>
</tr>
</thead>
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<td>History</td>
<td>This research is an impact-based study. It explores the factors that impact the satisfaction level of the beneficiaries who are receiving funds and are acquiring the different programs and services of Pakistan Baitul Mal, a public treasury. The focus of the study is to analyze the working of the organization through the services they are providing and to evaluate the impact it is creating on the satisfaction of the people in need. This study relies on the primary and secondary data both. The results revealed that a vast majority of people were satisfied by the services being provided by beneficiaries and most of them agrees that these services have positively impacted on their satisfaction level. Briefly, this study has also provided some recommendations through which the scope and working of organization can be enhanced.</td>
</tr>
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<tr>
<td>Available Online: December 2020</td>
<td></td>
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1. **Introduction**

   It is disconcerting to know that around 24% of Pakistan’s civilians live below the poverty line (Pakistan, 2019). The Islamic Republic of Pakistan is a low to middle income nation that is situated at the intersection of south-central Asia. The total population of the country is 216 million, making it the fifth most populous country in the world. Nearly 60% of the nation's, 796,095km2, land is arid to semi-arid (ADB, 2005). One third of its population is involved in the service sector while almost 50% is employed in the agriculture division (GoP, 2002). Agriculture is the significant sector in Pakistan with more than two-thirds of the population dwelling in rural zones. In order to curb these poverty crisis
almost all of the countries have established welfare organizations/public treasuries. In Islamic terms these public treasuries are called as Bait-ul-Mal. The Bait-ul-Mal was traditionally a financial institution responsible for tax administration in Islamic states, particularly in the early Islamic Caliphate. It served as a royal treasury for the caliphs and sultans, handling personal finances and government spending. Additionally, it managed the distribution of zakat revenues for public services. Modern Islamic economists believe this social structure to be appropriate for Islamic societies of today. One such Islamic public treasury has had been established in Pakistan with the name called “Pakistan Bait-ul-Mal”. The head office of the Bait-ul-Mal is in Islamabad and there are 7 provincial offices in each province’s capital, in Multan, Azad Jammu and Kashmir, and in Gilgit. For its service requirements, more district offices are established for efficient management and administration. The Bait-ul-Mal head office and all its branches and district level offices throughout the country are now interlinked through the Internet. This has been done to ensure full accountability and to improve efficiency in the organization.

This study aims to assess the beneficiary’s satisfaction regarding PBM services, we have focused on its four services. These services are education, health, poverty and disability assistance. However, we have considered its other services as well, that includes, marriage and shelter. These are the new services introduced by the PBM, so there was not much information regarding them in the PBM database. We have measured these services through the inputs that were being provided by the PBM for the respective service. For the health, we assumed that PBM gave the medical card, cheques, cash transfers and treatment. However, our study indicates that PBM provides cheques and treatment for health purposes. For disability assistance, only cheques were provided. We considered that PBM provides a stipend, direct cash, scholarships and cheques for the education. However, our analysis proved that PBM provides scholarship and cash transfers to the students, which goes directly to their respective educational departments. PBM provides grants for poverty.

These inputs help us to understand whether the given input or cash is enough and satisfactory for the beneficiaries and how they have impacted the social welfare and wellbeing of a beneficiary. They also help us understand whether these services resulted in curtailing the social and economic issues and needs of the vulnerable. We will also be using inputs to help us determine the institutional capacity of PBM and we will consider beneficiaries satisfaction to help us evaluate the effectiveness of PBM services.

1.1 Research Limitations
Although research was able to fulfill its basic aim and purpose, there were certain limitations which hindered the potential of study and that could not have been completely ignored. Firstly, we were not able to carry out field surveys due to the ongoing pandemic, which had posed a great hurdle to carry our research.

Secondly, it is also believed that the interviews are more prone to biasness than the questionnaires due to the human nature, also the difference in understanding might also lead to biased results which has been rightly pointed out by a researcher who says, “interviewers are human beings and not machines. Bias can be present in wording the questions and in the way, they are interpreting” (Sellitz, 1962).

2. Literature Review
Numerous researches have been conducted around welfare and its many aspects since the latter half of the 20th century. While the research questions and results may vary, they all share some overlapping themes: Theories/Models, Education, Finance, Health Care, Service Delivery, Bait-ul-Mal/waqf, and Welfare in General.
Beginning with approaches, as previously discussed, Pakistan’s welfare approach is based on that of the Islamic welfare state. When it comes to other countries, we can see that previously the Nordic State Model, for a variety of reasons, saw Denmark as an ideal leader to bring about welfare development. (Stein Kuhnle 1978). Moreover, when looking at it from an education standpoint we can see that it varies across the Nordic countries and it is more akin to patterns than a single model. Also, it has been noted that different education systems world over has become standardized (Antikainen 2006). In conjunction with this, Social Work Theory has been used to analyze aspects such as curriculum and work conditions by conducting research on the DACUM or the Develop-A-Curriculum method (Martha Bragin et al 2014). Since then, Social Investment has also been recognized as a critical approach and framework when it comes to welfare (Thomas Leoni 2016).

When it comes to service delivery, one of the earliest studies conducted is a critique on essential care packages which suggests that key services need to be improved, especially at a primary level and better financial management needs to take place to see significant improvements (Tim Ensor et al 2002). It has been noted that areas with high ethnic diversity receive less public provision than others (Jhumur Sengupta and Debnarayan Sarkar 2011). Accordingly, higher-income groups receive better service with the government needing to focus on protecting the vulnerable groups and eliminating poverty overall (Giang Thanh Long 2012). Looking into support for the elderly and aging demographics research assesses the nation’s plan to tackle this issue (M. Nazrul Islam, Dilip C. Nath et al 2012). Researchers have suggested that the public has lost faith due to lack of standardized and high-quality public service (Femi Otomoso 2014). Furthermore, lack of planning and ineffective management has also contributed to poor service delivery (Moses Khisa 2015). A specific example of this aspect has to do with water service delivery where it is found that public officials are self-interested, there is a lack of participation from consumers/employees, non-compliance with system accountability, and decline in water service provision. (John Mary Kanyamurwa 2016).

Studies have also investigated the legal constraints when it comes to the Bait-ul-Mal, researchers note that it has the potential to be improved further and thus would result in increasing economic activity (Bayu Taufiq and Possumah Abdul Ghafar Ismail 2012). When it comes to assessing the Bait-ul-Mal in federal territories, one study suggested that existing distribution methods are inadequate and that relevant laws need to be amended for it to operate at maximum efficiency (Liyana Al-Hany Binti Abdul Halim 2014). Additionally, Waqf is very important and it encourages social entrepreneurship to increase competitive advantages (Martha Bragin et al 2014). Waqf is also considered to be a great opportunity for less well-off families to receive proper education, funding, etc. (Muhammad Tariq Khan 2014). One study suggests that there should be increased efforts to generate Bait-ul-Mal funds to ensure its survival and to do so, private sectors need to be involved (Md. Habibur Rahman 2015).

3. Research Methodology
This is an empirical study, based on both primary and secondary sources of data. The framework of analysis on which primary data i.e. survey has been conducted is that how well beneficiaries know about the institution i.e. Bait-ul-Mal and how are they acquiring benefits. Moreover, interviews shall also be conducted to get to know the stance of the officials. Secondary data has been collected from the Institution regarding the beneficiaries so that we get a way forward in our research.

3.1 Problem Statement
The research aims to assess the impact of services of Pakistan Bait-ul-Mal on satisfaction of beneficiaries.

3.2 Research Objective
To determine the efficiency/effectiveness of the Bait-ul-Mal services on beneficiaries’ satisfaction

3.3 Research Question
What is the impact of the Bait-ul-Mal on the satisfaction level of the beneficiaries?

4. Research Analysis
For analyzing quantitative data, Interval Regression method was used. The aim behind using this technique was to evaluate the relationship that exists between the dependent and independent factors under study. For instance, interval regression method had been helpful in developing a relationship between satisfaction of beneficiaries who happen to be dependent on this research and the services and programs, which are independent variables, regarding to what extent they benefited the recipients. In social science, it is a common phenomenon that out of the large population a small fraction of data is collected and an inference is drawn for the whole population (Hamilton, 1992). Hence, this method reduces the probability and possibility of error that might exist in the general assumptions made. The quantitative data obtained through surveys was consolidated into an excel sheet and this method was applied through STATA.

For this research study, qualitative data was analyzed by using the method of thematic analysis and content analysis. Thematic analysis is the method used to identify, analyze, and report different patterns in qualitative data. Thematic analysis consists of six phases and this method should not be taken as a linear model which means that going to the next step without completing the previous step. (Clarke, 2008). For the purpose of this research interviews were analyzed through thematic analysis. The notion behind using this was to create a link between what the officials of the Bait-ul-Mal have to say regarding the services they provide and what views the beneficiaries have regarding the services they received.

4.1 Qualitative Analysis
The findings from the telephonic survey questionnaire have been analyzed in the following sections along with which the tables representing significant or insignificant relationship has been shown. For the purpose of analyzing data quantitatively, different statistical tools such as Ms. Excel and Stata were used throughout the computation and analysis process. For the purpose of this study we used regression method in order to analyze the relationship that exists between independent and dependent variables. The telephonic survey was conducted randomly through the different beneficiaries. The survey had a total of 65 questions, and we surveyed 155 respondents. The aim was to evaluate the satisfaction level of the beneficiaries quantitatively. For the purpose of this study we used 8 regression models which will be discussed one by one in the next sections.

All the 8 models utilized 4 different regressions with set of different independent variables. The steric signs reflect the level of significance between the dependent and independent variables. X*** reflects the value of p>0.05, X** shows the value of p<0.05 and x* shows the value of p<0.01. the values with no steric sign show insignificant relationship. Moreover, the negative sign or no sign shows the nature of relationship that exists between the variables and lastly below the coefficients in the parenthesis is mentioned the value of standard error.

4.1.1 Overall Satisfaction Level of Beneficiaries
In order to evaluate the satisfaction level of beneficiaries with the overall working of organization we kept satisfaction level as dependent variables and regressed it with different independent variables mostly pertaining to demographic factors. The following table shows the results.

<table>
<thead>
<tr>
<th>Table 1 Overall Satisfaction Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEPENDENT VARIABLES</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Diff. in Appl.</td>
</tr>
<tr>
<td>Employment Status</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
This table shows that all the sets of independent variables when regressed with the satisfaction level have a value of p>0.05 except for the 4th regression outcomes which have value of p<0.05. The results also illustrate that satisfaction level has negative relationship with the independent variables such as age, gender, and household earning members in all the regression outcomes. Remaining variables implies a positive relationship.

### 4.1.2 Level of Satisfaction with the Poverty Alleviation Service

In order to be more specific, we evaluated the satisfaction level of beneficiaries with the services. Firstly, we evaluated the poverty alleviation service. In this relation all the results turned out to be highly significant because most of the beneficiaries had lost their jobs amid COVID-19 and they were in dire need of the financial support. With the timely disbursement of the funds the beneficiaries were quite satisfied. From the table following the results can be seen.

**Table 2 Poverty Alleviation Service- Satisfaction**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POVERTY ALLEVIATION FINANCIAL ASSISTANCE- SATISFACTION LEVEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial aid in PKR</td>
<td>0.522*** (0.0958)</td>
<td></td>
<td>0.5111*** (0.1005)</td>
<td></td>
</tr>
<tr>
<td>Type of service availed</td>
<td></td>
<td>0.0965*** (0.0703)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs covered</td>
<td>-0.999*** (0.1572)</td>
<td></td>
<td>0.2719*** (0.1257)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>0.035 (0.1189)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>-0.037 (0.0448)</td>
<td></td>
<td>0.0075*** (0.0023)</td>
<td></td>
</tr>
<tr>
<td>Household monthly income</td>
<td>0.0167 (0.0142)</td>
<td>-0.008*** (0.0076)</td>
<td>0.00176*** (0.0072)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.0330 (0.1109)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household earning members</td>
<td>-0.0319 (0.0497)</td>
<td>0.0189*** (0.0255)</td>
<td>0.0280*** (0.0251)</td>
<td></td>
</tr>
<tr>
<td>Trips to PBM</td>
<td></td>
<td>0.1765*** (0.0451)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>0.0007*** (0.201)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
All the values represent highly significant relationship with the dependent variables i.e. the value of p>0.05 in all the regression outcomes. Moreover, in this case needs covered, employment status, and household earning members reflect a negative impression on the dependent variable. Else apart from these it can be devised that all the independent variables are producing a corresponding change in enhancing the satisfaction level.

### 4.1.3 Level of Satisfaction with the Medical Assistance Service

Medical assistance is the most received and applied for service. People tend to acquire this service either because they do not have excess to the medical aid, or they are short of funds. The following table represents the results between satisfaction level and medical aid.

#### Table 3: Medical Aid Satisfaction

<table>
<thead>
<tr>
<th>Type of aid availed</th>
<th>MEDICAL AID- SATISFACTION LEVEL</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>1.215***</td>
<td>1.102***</td>
<td>1.136***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.1751)</td>
<td>(0.2070)</td>
<td>(0.2700)</td>
<td></td>
</tr>
<tr>
<td>nature of aid received</td>
<td></td>
<td>3.774***</td>
<td>0.399***</td>
<td>2.135***</td>
<td>0.1863***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.327)</td>
<td>(0.3855)</td>
<td>(0.435)</td>
<td>(0.212)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td>0.0239***</td>
<td>0.0269</td>
<td>0.1863***</td>
<td>0.1863***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.2269)</td>
<td>(0.2700)</td>
<td>(0.212)</td>
<td></td>
</tr>
<tr>
<td>Difficulty in applying</td>
<td></td>
<td>1.44***</td>
<td>1.345***</td>
<td>0.1863***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.1324)</td>
<td>(0.1483)</td>
<td>(0.212)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-0.0445***</td>
<td>-0.094***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0969)</td>
<td>(0.0897)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>household income</td>
<td></td>
<td>0.1108***</td>
<td>0.1177***</td>
<td>0.1177***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0768)</td>
<td>(0.0568)</td>
<td></td>
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</tr>
</tbody>
</table>

The results again have revealed a significant impact on the level of satisfaction through the provision of these services except for one set of variables which include the regression 2. This relationship was highly insignificant hence showing that no such impact is demonstrated in this relationship. Else all other values had a positive relationship with p values> 0.05.

### 4.4 Level of Satisfaction with the Educational Assistance Service

It was the second most demanded service. To check the level of satisfaction this service was creating we evaluated through 4 different relationships. All the values turned out to be highly significant i.e. p=0.000 which shows that these variables had enhanced the satisfaction level of the beneficiaries. The regressed results are accumulated in the following table.

#### Table 4: Educational Assistance Satisfaction

<table>
<thead>
<tr>
<th>Nature of educational assistance</th>
<th>EDUCATIONAL ASSISTANCE- SATISFACTION LEVEL</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1.062***</td>
<td>-0.266***</td>
<td>1.216***</td>
<td>-0.327***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.2174)</td>
<td>(0.1256)</td>
<td>(0.0738)</td>
<td>(0.1300)</td>
</tr>
<tr>
<td>Difficulty in applying</td>
<td></td>
<td>0.103***</td>
<td>4.172***</td>
<td>4.303***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.110)</td>
<td>(0.2445)</td>
<td>(0.256)</td>
<td></td>
</tr>
<tr>
<td>Improvement requires</td>
<td></td>
<td>0.0239***</td>
<td>0.0448***</td>
<td>0.0448***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0305)</td>
<td>(0.0642)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household earning members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household monthly income</td>
<td>0.0082*** (0.0176)</td>
<td>-0.0078*** (0.0075)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>employment status</td>
<td>0.0269*** (0.0559)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biased selection criteria</td>
<td>0.0496*** (0.251)</td>
<td>-0.0707*** (0.261)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>-0.3055*** (0.1384)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage of Acquisition</td>
<td>0.060*** (0.351)</td>
<td>-0.4887*** (0.125)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.2 Thematic Analysis

#### 4.2.1 Satisfaction on Customer Service

The data indicates that 66.94% of the respondents are highly satisfied with the services of Pakistan Baitul Mal. This is a huge number and indicates an efficient service delivery on the part of PBM. 16.53% and 5.79% respondents are moderately and slightly satisfied respectively. Overall, 89.26% of the respondents were satisfied with the services. Only 9.09% respondents were dissatisfied at different levels. Out of these only 2 respondents were extremely dissatisfied.

![Figure 28 Level of satisfaction on customer service](image)

#### 4.2.2 Level of Satisfaction with Poverty Alleviation

The majority of the interviewed PBM beneficiaries seem to indicate that they are pleased with the grants that they receive, with over 51.85% of them stating that they are ‘extremely satisfied’ with them. Only, 11.11% expressed some sort of minor grievance with the grants, while 0% expressed completely negative sentiments. These answers might be somewhat biased considering that the beneficiaries would not want to express dissatisfaction at the thought of their complaints leading to their grants being stripped. While anonymity was maintained throughout, Hawthorne effect might be a factor here.
4.2.3 Level of Satisfaction with Educational Program Aid
More than half of the respondents, 52.38%, are extremely satisfied with the educational assistance program. There are 38.10% of respondents who are satisfied by it, and 9.52% have a neutral perspective about it. It implies that this program is effective in addressing the students concerns regarding education.

5. Recommendations
Positive dealing with the needs of the people is a major factor that influences the satisfaction of the people and as well as enhances the efficiency of the organization. The term “beneficiary satisfaction” refers to all those factors that make the organization work and achieve greater gains on the part of the general public. The extent of the impact that PBM is creating surely depends upon the level and quality of services and programs it is providing. This research study has sought to identify whether the services
are producing any sorts of impact or not. After a careful analysis of the literature review it turned out that further study must be conducted in this area in order to identify major factors behind the working of the organization at optimum level. Due to limited availability of data only three services were analyzed deeply. In terms of satisfaction level of beneficiaries, a number of factors that influence the level of contentment among the recipients were studied. The demographic factors, employment related factors and application processing factors had mainly stimulated the level of satisfaction. The services had a momentous impact on the satisfaction of the beneficiaries. We couldn't gather enough data regarding employment relief but small grants to support household enterprises that generate just enough income to feed a belly were seen as useful. As far as the medical aid is concerned, slight dissatisfaction was recorded. They claimed that medical treatments were very costly and required urgent payment unnecessary delays in disbursements of the funds and mistreatment by the staff led to the grievances. The educational assistance had received a remarkable appraisal. The stipends issued to deserving students redounded to nothing but a fortune changer for the students. The stipends covered not just their living costs but also miscellaneous expenses that students face during their years in a college/university. Moreover, the students clearly mentioned that this service being provided by the PBM was free from any biasness and discrimination hence led to the enhanced gratification of the payees. Here our hypothesis has been proven.

5.1 Anti-Corruption Cell
The committee in charge of PBM should constitute an anti-corruption cell within the organization that would investigate complaints regarding misuse of authority and non-cooperation by the staff while maintaining a sharp oversight on overall proceedings and transactions. It should report directly to the parliamentary body responsible and not the management of PBM itself to render it autonomous yet vitally connected with it. Also, an audit report to the former ought to be submitted by this wing on an annual basis which would be scrutinized.

5.2 Increasing Funds
Running a nationwide social safety net with a stingy budget is an uphill task. Unfortunately, PBM is forced to stop receiving applications when its annual budget is depleted. I’m sure the government is giving it all it can afford but PBM itself should devise ways to generate its own revenue, whether it be by collaboration with INGOs, World Bank, UN organizations etc. or investing in sectors that would give profitable returns like bonds. These returns can be used to strengthen and uplift PBM financially so it can bring more beneficiaries in its net and improve its existing programs.

6. Concluding Remarks
In order to put end to this study, we believe that the findings of this research study and the recommendations will help the government of Pakistan to fully utilize the available resources and to serve the public by providing them improved and enhanced welfare services. not only that this research can also pave way for other public sector organizations to work efficiently and effectively because the fact cannot be denied that there exists a lot of potential here in Pakistan which if mindfully utilized will lead Pakistan to on the roads of prosperity. Pakistan Baitul Mal is close to the ideal model of social security provider for the country. Unlike other social security organizations or welfare programs, Pakistan Baitul Mal is working in quite an efficient manner with the least political environment. Government needs to bring the organization into the limelight and enhance its scope of service provision without politicizing it. Capacity building of the organization in terms of finances, particularly, holds the utmost importance in this regard. Moreover, an increase in the human resources is also very important to enhance the efficiency of the organization and provide a fast track service delivery to the applicants. Nascent welfare programs should be given under the umbrella of one institution to streamline the social safety net in Pakistan. This position should indeed be taken by the PBM considering the efficiency of organization and the trust of the public in the institution.
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Financial Inclusion and Financial Literacy in Low Income Group in Emerging Economy

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ARTICLE DETAILS

Abstract

Purpose: Financial institutions engage in performing imperative part in the economic development of an economy through circulation of funds that resulting in employment and fair distribution of limited resources. Financial literacy results in usage of financial product and services provided by financial institutions that lead to pervasive growth of an economy. Financial inclusion takes into loop the excluded segment of a developing country to attain the desired financial and economic outcomes. Recognizing the importance of financial inclusion, this study is executed to investigate the impact of financial literacy on financial inclusion in street vendors. Design/methodology/approach: This study was conducted in twin cities Islamabad and Rawalpindi. Snowball and purposive sampling technique has been used in this study. Primary data has been collected from street vendors through semi structure interviews and questionnaire. Participatory action research design is used in this study. Deductive approach has been used for qualitative data analysis. Findings: The results of this study found that street vendors only name financial institutions. They don’t have knowledge about financial products and services provided by those financial institutions. Because of inadequate knowledge, majority of the street vendors do not use financial products and services which are available to them. A very small number of street vendors are using financial products and services. The expected outcomes of this study set a direction for policy makers of financial institutions about how to increase financial inclusion by considering the observed relations in this study. Practical Implications: The results will help policy makers in formulating effective strategies to bring into the net that excluded segment, which if included will not only improve their quality of life but also augment to the sustainability and growth of economy through financial inclusion. Originality/Value: As suggested by the recent relevant literature, the study is an attempt to identify those antecedents of financial inclusion, which has not been explored earlier in context of Pakistan, to extend the earlier findings through qualitative research method and to establish how financial inclusion can be made a success in achieving its desired outcomes in a developing economy.

JEL Classification:
M40, M41
1. Introduction

The dynamics of financial inclusion turned out to be amazingly imperative economic issue after the 2008 global crisis as it relay on the stability of financial structure in which income is not fixed that contribute to financial turmoil. In this recent era, the development of financial inclusion has engrossed the consideration by the entire world. Financial inclusion is a way in which individuals and businesses have contact to functional and reasonable financial products and services that meet their needs—transactions, expenditure, investments, credit and insurance in an accountable and sustainable manner. Advancement of the financial division is an imperative part in achieving the micro practicalities of assets foundation and economic improvement of a country. Progressively more appropriate section in this association narrate to the concern of financial access which escort to financial inclusion, which revolve to superior living standards and plays an incredibly significant role in attaining sustainable growth and development.

The low-income group financial development is determined by the financial literacy regarding financial institutions and their contact to financial products and services. Consequently, a balance among financial inclusion and financial structure constancy is necessary. Financial inclusion influences the poor during two situations: aggregate growth and alteration in the division of income. Financial inclusion boost growth and decrease inequality through drip down effects. International Labour Organization has acknowledged the function of providing financial inclusion services to guarantee social safety, which recognizes it as a human right that aimed towards dropping and avoiding poverty and susceptibility throughout the life cycle (Bhandari, 2018).

Financial inclusion is an important mechanism to develop human’s well being if matched with financial literacy. For low income group, financial literacy is measured to be an important requirement for a successful financial inclusion by the financial institutions. In spite of the significance of the financial literacy programmes to improve individual’s financial competence, numerous limitations require to be tackle to develop outcomes. However, to conquer the objectives of financial institutions, financial literacy programmes by financial institutions is essential but, unfortunately, perceptive in this view is particularly insufficient. Financial access is a path to progress low income group welfare but deficiency of financial literacy disputes objectives set by financial institutions. Anshika and Singla (2017), evidence in their research that India has very small (24 percent) of financial literacy in contrast to BRICS (28 percent) economies and European economies (52 percent). A survey by Standards & Poors (2014) illustrate that more than 76 percent of Indian adults be short of basic financial literacy and are incapable to comprehend the fundamental financial idea which may plays a fundamental bottleneck to financial inclusion.

In developing countries, financial exclusion is due to having low financial literacy regarding financial products and services (Atkinson & Messy, 2013). In low income countries, motivation for saving, borrowing and employment of financial products and services influence financial inclusion (Holzmann,
2010). Financial inclusion is a system through which a developing country like Pakistan can accomplish comprehensive growth by linking the role of marginalised and the rural population section of the country with rest of the economy. There are concerns connected to financial inclusion particularly for the developing countries like Pakistan. Initially, the financial literacy is necessary, there should be programs to guarantee people can make correct financial decisions, decide financial products, which are according to their desires, and have knowledge how to use associated mediums, such as financial products and services. Numerous developing countries have been operational on financial literacy policies. There is need of studying the importance of financial literacy that leads to financial inclusion as prescribed by many researchers.

2. Literature Review

Financial Inclusion positively influence the lowest level of society that they can have investments documentation in financial institutions, contact investment from financial institutions, and amplify the aptitude of soft and hard skills. In economic growth of Indonesia, banks play an immense function to be the dynamic strength of financial inclusion actions. From an international viewpoint, this action is anticipated to maintain additional comprehensive and sustainable economic development, and can help the people wellbeing. Furthermore, financial inclusion is anticipated to sustain the financial strength as basis of firm economic progress (Widarwati, Sari & Nurmalasari, 2019).

Kigsley (2013) has tinted the function of financial inclusion in tackling concerns such as worldwide poverty, income discrimination, under progress and wellbeing. Majority of people coming under system of financial system, their mutual impact donate to more rapid economic development. Sarma and Pais (2010) found that financial inclusion decrease the domination of casual financial institutions which are manipulative in nature and access to proper financial services raise effectiveness of the resource distribution and diminish cost of capital.

Kasman, Heuberger, and Hammond (2018) demonstrated in their research that low financial literacy is a hurdle to various Americans financial potential and welfare. Talented adults who should have financial information and financial ability to role as adults autonomously having low financial literacy (Kasman et al., 2018). Improved financial literacy can take place through authorization, necessities, principles, and state education establishment (Kasman et al., 2018). Financial inclusion endeavor to make available the recognized financial service at appropriate rate to the unbanked population as a result convenience, accessibility and consumption are imperative feature to understand financial inclusion (Pal and Vaidya, 2011; Sarma, 2012, Kumar, 2013).

Financial inclusion is vital for escalating the poor’s admittance to financial services is repeatedly measured as valuable mean that can facilitate reduction in poverty and income disproportion (Park and Mercado, 2018). Admittance to a variety of services and mechanism for example discount, credit, insurance and pensions afar financial dealings is crucial social hold for a person that leads to numerous transformative impact on person’s life (Gitaharie, Soelistianingsih & Djutaharta, 2018; Smyzcek and Matysiewicz, 2014; Zhu and Walker, 2018). As a result better access to bank deposits can optimize deposit financial maintenance in banking subsequently maintain financial stability of complete financial system (Han & Melecky, 2013).

In recent years, financial literacy has gained a lot of attention and growth in a number of countries. The reason for this growth is due to difficulties come up in vibrant financial system that necessitates financial customers to more aggressively formulate financial alternatives and assessments (Lusardi & Mitchell, 2011). Sen’s Capability Approach has applied to this research that believes that all categories of literacy are important for human development (HD) (Gasper, 2002). Financial literacy helps individuals to use their skills and knowledge that is essential for them to use financial products and services to get better their financial health and it will helps in creating financial inclusion (Braunstein & Welch, 2002). Lack of financial literacy is major reason of low use and demand of formal financial
products and services (Gine and Yang, 2009).

Numerous financial products and services presented by financial institutions and becoming complex without growth of financial literacy level between the numerous clusters of the society (Lyons, 2005). The development of consumer financial market that is providing multiple financial products and services are effecting financial decisions of an individual’s (West, 2012). For using these financial products and services, there is need of financial literacy that will create as well as enhance financial inclusion. Several studies (Lusardi & Mitchell, 2013; Atkinson & Messy, 2011; Atkinson & Messy, 2012) in this regard argued that number of potential financial customers due to having lack of related concept, knowledge and skills that is required to facilitate their financial preferences and decisions unable to use these financial products and services which results in low financial inclusion and unable to improve quality of life and wellbeing.

Financial literacy improves the poor’s financial decision making along with understanding of financial matters and financial options attached with fundamental financial skills (Cohen & Nelson, 2011). A study conducted in Indonesia, where financial literacy program conducted to educate unbanked households regarding saving account to those who don’t have financial knowledge (Cole et al., 2011). Its outcome was not only increase in their financial skills but also authorize them utilized their responsibilities and rights in the consumer protection equation. Trainings regarding financial skills to poor households of developing economies facilitate them to choose saving plans offered by financial institutions (Holzmann, 2010). Lack of financial literacy in developing economies mainly in poor households is major problem in generating financial inclusion (Thorat, 2007). This leads to financial exclusion of the poor (Agarwal, 2008). Those poor households who are unfamiliar with financial products and financial services will not use those (Cole et al., 2010). Well informed poor households can assess financial products and services to create well informed decision as a result they gain supreme utility (Lusardi, 2009). It also contributes to proficient allotment of economic resources and superior financial potency (Lusardi & Tufano, 2009).

Financial literacy can facilitate poor households to realize the saving rationale (Holzmann, 2010). Ardic et al. (2011) described in his study that financial literacy decrease asymmetric information due to having knowledge regarding financial products and services offered in the financial market. Financial knowledge considerably develops essential understanding of financial options and approach towards financial products and services and makes appropriate financial decision (Carpena et al., 2011), thus persuade evade substandard financial products and services (Braunstein and Welch, 2002).

In fact, financial literacy results in low pace of retirement plans, lesser involvement in stock exchange, pay higher charges for employing financial products and services and having high debt (Lusardi & Mitchell, 2014). Many nationals in economy have less formal product and services offered in financial markets, lack of training on financial aspects and involvement in developing countries (Xu & Zia, 2012). Jappelli (2010) described in his study that training related to financial literacy enhance the financial understanding which influence financial behavior of poor households. Having good financial knowledge in poor households enhance their ability to manage their budget and save money for old age (Holzmann, 2010). Financial literacy facilitates many financial behaviors for example investments, insurance, plan for retirement, participation in financial markets, access of bank accounts, savings, and other financial practices (Braunstein & Welch, 2002).

### 3. Methodology

A possible source of data in this study is primary data. Primary data has been collected through semi structured interview and questionnaire. Qualitative data has been utilized for this research. Therefore qualitative research method has been used in this study. The units of analysis for the study consist of street vendors residing in twin cities Islamabad and Rawalpindi, Pakistan. A total sample of 89 street venders covered under this study. Street venders actively participated in interview. Seven street venders
refused for interviews. Furthermore, snowball and purposive sampling technique has been used in selecting the sample. Participatory action research design is used in this study. Deductive approach has been used for qualitative data analysis. A saturation criterion was adopted to finish process of data collection. The collected data was analyzed through SPSS and content analysis.

This research used a semi-structured questionnaire, which was formulated according to guiding principles recommended by Sekaran (2000). The semi-structured questionnaire has both open-ended and closed-ended questions to explore the variables under this study conducted in Pakistan. Financial literacy measured through knowledge of financial planning, saving behavior, financial knowledge and financial concepts and financial inclusion measured through access and experience through financial service (Clarka et al., 2018). Individual street vendor characteristics includes age, gender, marital status and education level, product they are selling (edible, clothes, shoes, cosmetics, others) and weekly sales (1,000-15,000) (Irankunda & Bergeijk, 2019).

4. Analysis & Discussion
Individual characteristics act as important determinants of financial inclusion (Zins and Weill, 2016). Table 1 shows descriptive statistics for individual street vendor characteristics, product and weekly sales. This table described the minimum, maximum, mean, standard deviation and variance for age, gender, marital status, education, business type and weekly income. Table 2 described frequency of use by individual street vendor characteristics, product and weekly sales.

| Table 1: Descriptive Statistics for Individual Street Vendor Characteristics, Product and Weekly Sales (N=89) |
|---|---|---|---|---|
| | Minimum | Maximum | Mean | Std. Deviation |
| Age | 1 | 4 | 3.24 | .826 |
| Gender | 1 | 1 | 1.00 | .000 |
| Marital Status | 1 | 3 | 1.31 | .556 |
| Education | 1 | 4 | 2.30 | .922 |
| Business Type | 1 | 5 | 3.09 | 1.557 |
| Weekly Income | 1 | 4 | 2.47 | 1.129 |

Frequency for age includes 3.4% of the sample ranges from 20 and below, 14.6% of the sample ranges from 21 to 30 years, 37.1 % of the sample ranges from 31 to 40 and 44.9% of the sample ranges from 41 to 50. Frequency for gender includes 100% male.73% of the sample were married, 22.5% of the sample were unmarried and 4.5% of the sample were separated. Education level include 20.2% of the sample were included in primary, 40.4% of the sample were included in middle, 28.1% included in matric and 11.2 % were include in FA/FSc/other. Business type includes edible 22.5%, clothes 18%, shoes 18%, cosmetics 11.2%, and other business like kitchen utensils etc 30.3%. 22.5% of the sample earn from Rs 5,000 to 10000, 36% earn from 11,000 to 15000, 13.5% earn from 16,000 to 20,000 and others earn less than 5000 was 28.1%.

| Table 2: Frequency of Use by Individual Street Vendor Characteristics, Product and Weekly Sales (N=89) |
|---|---|---|
| Individual Street Vendors Characteristics | Categories | Frequency | Percent |
| Age | 20 & Below | 3 | 3.4 |
| | 21-30 | 13 | 14.6 |
| | 31-40 | 33 | 37.1 |
| | 41-50 | 40 | 44.9 |
| Gender | Male | 89 | 100.0 |
| | Female | 0 | 0 |
| Marital Status | Married | 65 | 73.0 |
| | Unmarried | 20 | 22.5 |
| | Separated | 4 | 4.5 |
| Education | Primary | 18 | 20.2 |
| | Middle | 36 | 40.4 |
| | Matric | 25 | 28.1 |
Street vendors do financial planning according to their income. They save money by limiting their budget through fewer fulfillments of their needs or through committee. Whatever they save majority of them keep that money at home. When they need money, majority of them borrow from friends and family members. Very less number of them borrows from bank.

The result found in this study that only two of the street vendors from whole sample use financial products and services. Majority of them don’t have bank accounts and don’t have knowledge about financial institutions. They only name Bank (financial institution), but they don’t have knowledge about their financial products and services and don’t know about interest rate. Majority of street vendors do not use financial products and services which are available to them. A very small number of street vendors are using financial products and services.

Higher financial literacy leads to more financial inclusion (Doi et al., 2014; Jamison et al., 2014). Therefore, financial literacy contributes to better financial decision making (Grohmann et al., 2018). The results of this study showed that there is lack financial literacy which demonstrates that there is lapse on the behalf of financial institutions and economic stakeholders that they don’t organize awareness programs. As a result of which majority of people are financially excluded. Financial institutions play an important role in circulation of funds that helps in creating employment and fair distribution of scare resources. Due to lack of financial literacy programs by the financial institutions underprivileged segment of the society unable to access the financial products and services which are available to them. Whatever they save that money is not productive because they are keeping it at home and won’t be investing to increase their income. Financial literacy training programs offer information regarding financial planning, concepts, and banking services, increasing street vendors’ financial and money managing abilities. The results of this study supported by Sen's (1999) capacities approach to development by endorsing adolescents' financial competence (Johnson & Sherraden, 2007). This approach involves not only financial literacy and skills, but also access to and understanding with financial products and financial services.

5. Conclusion
Therefore, financial literacy is necessary, there should be programs to guarantee people can make correct financial decisions, decide financial products, which are according to their desires, and have knowledge how to use associated mediums, such as financial products and services. Numerous developing countries have been operational on financial literacy policies. There is need of recognizing the importance of financial literacy by the financial institutions that leads to financial inclusion. This study concludes that majority of street vendors don’t have bank accounts and they don’t even use financial products and financial services. The reason behind these financially excluded street vendors is lack of financial literacy that is lack of knowledge regarding financial products and services offered by financial institutions.

Financial institutions play an important role in promoting financial literacy. In Pakistan, financial institution’s role is lacking in promoting their financial products and financial services. Financial
institutions should schedule financial literacy programs on regular basis. These programs will help in creating awareness regarding financial products and services offered by financial institutions. As a result, vulnerable or underserved segment will use financial products and services; consequently they will be financially included and improve their financial wellbeing. Not limited to this, it will also helps in poverty reduction.

7. Limitation of Study and Future Research Directions
There are certain limitations of this study due to financial and time constraints. In future, researchers must study mediating variables like financial self-efficacy, financial advice etc and moderating variable like social networks, institutional framework etc in existing study. This study is based on interviews, for triangulation purpose both qualitative and quantitative data must be incorporated in future research.

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Effects of Covid on Co2 Reduction and Climate Change

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ARTICLE DETAILS

ABSTRACT

Soon after the surge of Covid-19, the world got into a state of lockdown and everything was halted. There was great reduction in movement of the people both local and international. Less traffic, both air and road, was a rare sight and industrial production was reduced to a great number, as work from home was encouraged. All these factors contributed to steep decline of the carbon and nitrogen emissions. But now as the activities partially resume and governments all around the globe are introducing relief packages for the economy, it is feared that during all this the climate change may be neglected and such decisions may be taken that may impact climate change in severest way. In this paper we discuss how COVID-19 has decrease the climate change temporarily but it may bounce back once the economic activities resume as usual and how governments can take decisions to stabilize the economy while keeping in mind the climate change mitigation.

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1. Introduction

As cases of novel coronavirus started to spread around the globe at the start of 2020 world health organisations declared COVID-19 a global pandemic on March 11, 2020. (Catrin Sohrabi, 2020) Governments all around the world started to place preventive measures in the form of isolation in homes, locking down the districts, ban on gatherings, closure of schools, offices and workplaces and mandatory home confinements. As these measures were placed in almost all of the countries around the globe and most of the population in the world was confined in homes which led to a drastic decrease in the use of energy and fossil fuels. According to research conducted by Earth system science data, the
emissions of CO2 are rising by a factor of 1% per year over the period of the last 10 years. (Corinne Le Quéré, 2020) Yet according to the international energy agency it is estimated that there has been a 5% decline in the global CO2 emissions in the first quarter of 2020 when compared to the same period last year. According to another estimate the total CO2 emission globally reduced by 8.8% in the first half of 2020 than 2019. (Zhu Liu, 2020).

One of the major reasons for this decrease in CO2 emission is because of the decrease in industrial activities. Although the consumption side was not much affected but the supply-side was disrupted because of the shutdown of industry around the globe. (R Maria del Rio-Chanona, 2020) Second reason was that due to the lockdown around the world, people were encouraged to work from their homes rather than going to the officers or their workplaces. Public transport was shut down and intrastate and interstate movement was curtailed. Resultantly, decreasing CO2 emission in the atmosphere. This lockdown on one hand helps decrease carbon emission but on the other hand it has created a huge economic depression around the globe which many scholars argue that could be a cause of making climate change more adverse. (Cameron Hepburn, 2020) Economies all around the world faced drastic decline as industries and workforce all around the world were closed and home confined.

As the lockdowns are being lifted, and the economic activities are resuming, the governments are giving a stimulus to stabilize the economy. Resultantly there is going to be a full thrust of industries which can exacerbate the situation of climate. Many G-20 countries have introduced the rescue policies of the economy which cover the fuel intensive industries as well. According to an estimate of the IMF the countries have stepped their economic relief package up to around $9 Trillion. (Bryn Battersby, 2020).

Climate change should be treated the way we are treating the Corona virus. The impacts of climate change are and will be much graver on human health, economy, ecosystem, society as a whole and on the wellbeing of the planet. there is a need of global intervention in the form of monitoring and control from international agencies to help countries make such economic recovery packages that focus on economy as well as the climate change. These policy designs should mainly focus on clean R&D and green physical infrastructure which can help reduce the carbon emission and achieve the goals of UNFCCC.

2. Scope of the Study
Scope of this study mainly comprises the analysis of the governmental economic recovery packages all around the globe, on the climate change. The report includes how the climate change started to mitigate during the lockdown because of the pandemic and the reduction of the CO2 in atmosphere in major industrial regions of the world. Following the recommendations that can help government design such policies to ensure the climate change is not affected by the economic packages. As most of the data was taken electronically and no such physical research was conducted due to the lockdown the data may show some discrepancies as the data set was was very large so it was difficult to show the complete range of results of CO2 emissions. The reposts mainly aims to bring a conclusive evidence that how the COVID-19 economic recovery package may damage the environment and help governments and Intergovernmental Agencies to get the get a comprehensive idea about the situation.

3. Methodology
The nature of the research is secondary, and the data is gathered through electronic sources. The data is acquired from different International data houses for climate change monitoring sites and the economic data is acquired from the government and intergovernmental site sources. As the data set is large and the scope of the study is large the data may had some discrepancies and the data set may not be fully able to explain the research question as no first hand information was collected during the research to fit the question.
4. Literature Review
4.1 Background of Climate Change

Soon after the start of industrial revolution in the late 19th century scientists started to argue that the emissions of greenhouse gases from the industries could lead to the warming of temperature of the globe. To support this evidence scientist started to produce theories of climate change involving solar variation, volcanism, depletion of ozone layer, depletion of glaciers and so and so forth. As the evidence became more convincing the idea of climate change and global warming gained much attention in the corridor off policy institutions. Governments around the globe set up their own institutions and ministries for the protection and conservation of the climate in their respective countries. Yet to control the change in the climate a global approach was needed, for which international institutions had to intervene to form a global policy for the mitigation and reduction of CO2 emissions.

The first international climate change conference was organised by the United Nations formerly known as the United Nations Conference on Environment and Development informally known as the Earth summit. Aim of this conference was to stabilize the concentration of greenhouse gases in the atmosphere to prevent the change in climate and rising of the temperatures. In December 1997 treaty known as Kyoto Protocol, an extension of UNFCCC, was adopted by 192 two parties which aimed to reduce the onset of climate change by reducing the global greenhouse gas emissions to a level that would preclude dangerous anthropogenic interference with the climate system. To achieve this, aim the Kyoto Protocol set the target that global warming limited to below 2 degrees Celsius compared to the preindustrial temperature levels. (Depledge, 2000)

Soon it the global community realised, that the Kyoto Protocol was too flattering, and the signatory countries were struggling to find an alternative framework. At the 15th conference of parties in Copenhagen in 2009 more than hundred political leaders got together to negotiate the differences in the matter of climate change and formalized political agreement to set goals for limiting the global temperature increase up to 2 degree Celsius (Framework Convention on, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, 2011). Conference of parties COP 21 in Paris, the parties adopted Paris agreement. This agreement sets target for each country for the reduction of carbon emissions and introduces the phenomena of carbon credits which each country must follow or must pay the price of the emissions beyond assigned number. (Luca Lo Re, 2019)

4.2 Reduction During the Pandemic

As cases of novel coronavirus started to spread around the globe at the start of 2020 world health organisations declared COVID-19 a global pandemic on March 11, 2020. (Catrin Sohrabi, 2020) The virus spread quickly from China to all parts of the world, making its epicentre in Europe and then in the United States of America. Governments all around the world started to place preventive measures in the form of isolation in homes, locking down the districts, ban on gatherings, closure of schools, offices and workplaces and mandatory home confinements. As these measures were placed in almost all of the countries around the globe and most of the population in the world was confined in homes which led to a drastic decrease in the use of energy and fossil fuels.

With all these preventive measures placed, there was a steep decline in emission of carbon dioxide in the atmosphere with respect to the previous decade. According to research conducted by Earth system science data, the emissions of CO2 are rising by a factor of 1 % per year over the period of the last 10 years. (Corinne Le Quéré, 2020) Yet according to the international energy agency it is estimated that there has been a 5% decline in the global CO2 emissions in the first quarter of 2020 when compared to the same period last year. According to another estimate the total CO2 emission globally reduced by 8.8 % in the first half of 2020 than 2019. (Zhu Liu, 2020) According to European environmental agency
NO2 concentration of Nitrogen dioxide reduced to a significant amount many urban centers of Europe. In some cities like Barcelona and Lisbon, the reduction was as low as 50%. (Air pollution goes down as Europe takes hard measures to combat coronavirus, 2020).

One of the major reasons for this decrease in CO2 emission is because of the decrease in industrial activities. Although the consumption side was not much affected but the supply-side was disrupted because of the shutdown of industry around the globe (R Maria del Rio-Chanona, 2020). This resulted in decrease of fossil fuel consumption and less CO2 emission. Second reason was that due to the lockdown around the world, people were encouraged to work from their homes rather than going to the offices or their workplaces. Public transport was shut down and intrastate and interstate movement was curtailed. Resultantly, decreasing CO2 emission in the atmosphere. This not only helped in decreasing the CO2 emissions but also decreasing the air pollution and increasing the air quality for breathing in numerous cities of the world. Cities which previously had their skylines covered with smoke and dust now saw a clear skyline after an exceptionally long time. (Bourzac, 2020).

4.3 The Economic Resurge
A major part of the discussion should be based upon what happens once the economic activities resume all around the world. Economies all around the world faced drastic decline as industries and workforce all around the world were closed and home confined. According to one of the estimates around 81% of the total labour force of the world was affected by the COVID-19 lockdown. (R. Maria del Rio-Chanona, 2020) This lockdown on one hand helps decrease carbon emission but on the other hand it has created a huge economic depression around the globe which many scholars argue that could be a cause of making climate change more adverse. As the lockdowns are being lifted, and the economic activities are resuming, the governments are giving a stimulus to stabilize the economy. Resultantly there is going to be a full thrust of industries which can exacerbate the situation of climate. (Cameron Hepburn, 2020) Recently President Donald Trump before the completion of his tenure rolled back around 100 environmental rules to boost the economy of the United States. The adverse effect of this roll back is that all the industries are a major contributor in the production of CO2 and NO2. (Gillam, 2020).

Not just the United States but almost every country has this objective to introduce recovery packages in order to stabilize and restore the economy, without keeping in mind the climate change mitigation. Many G-20 countries have introduced the rescue policies of the economy which cover the fuel intensive industries as well, like Russian Express for airlines, (Nikitina, 2020) Australian airline relief and for us airlines development introduced CARES Act. (Cameron Hepburn, 2020) All these and other relief packages mainly target the decreasing deficits of fiscal accounts, caused by the lockdown, restoring life to “business as usual”. According to an estimate of the IMF the countries have stepped their economic relief package up to around $9 Trillion. (Bryn Battersby, 2020) This implies that a sudden surge of CO2 emissions will be there, likely to create an uncertain damage to the global climate. Yet, these decisions may help quick recovery of the economy but these decisions may have a grave impact on the lives of the people in the long run as this fiscal package can be one of the biggest drivers of climate change in the long term.

5. Recommendations
One thing that is similar between COVID-19 and climate change is that both need global attention and effort in order to protect the people of this planet. Climate change is also killing people just like the COVID-19 but in a slower manner. Both create market failures and externalities that require international cooperation and unity of the political leadership, to fight against. As more and more research is being conducted overtime on the effects of climate and COVID-19, many scientists have started to argue that the mortality rate due to COVID-19 is higher in those regions of the world where the air quality more degraded as compared to the mortality rate due to COVID-19 of those areas where air quality is better. (Wu, 2020)
Strictly speaking by keeping in mind the above-mentioned facts, it is time for the governments and policy making institutions to start to focus on climate change. This will not only help in making the environment clean but also reduce the fiscal pressure from main sectors like health and can possibly prevent another health crisis like COVID-19 in future. Following are some recommendations which we identified and compiled,

- Design and implement such policies that can benefit the economy and climate simultaneously. This means generating sources of income that are eco-friendly and economically viable. For example, production of hybrid cars and producing electricity using renewable resources helps reduce fossil fuel consumption and decreases the cost of energy production and as well as transportation.
- The economic recovery plans should mainly focus on clean physical infrastructure investment to develop renewable resources that can help start the economic cycle and conserve the environment.
- These bailout packages and recovery plans should focus on more clean research and development of eco-friendly mechanisms of communication and work. Just like me, during the lockdown many people worked from home instead of commuting to their offices. This reduced the great burden of traffic and made the atmosphere cleaner. These policies should encourage people to work from home as much as they can and whenever it is possible for them.
- Government policies should focus on development of public healthcare systems as it will promote the economic cycle as well as the public welfare. Investing money in Public health care can reduce the burden on the people who are economically unable to pay the private health Care fee. This will also help reduce the burden from the existing system.
- The economic policies developed for rural centres should focus on promotion of environmentally friendly agricultural practices and regeneration of the natural ecosystem. Such policies will encourage people to work and earn their livelihood alongside the conservation of the environment.
- These recovery packages should also focus on the development of clean research and development that can help reduce climate change and provide more economically viable solutions to the problems of the future.

The most important point is that these recovery plans should be designed not just according to the needs of the economy but also keeping in mind the situation of climate change. Poorly designed policies can have a grave and long-lasting impact as the whole world is trying to give these recovery packages in order to boost the economy. In order to make an effective policy plan, governments need to collaborate with NGOs locally as well as the international agencies. Not only this but this is why international bodies should also play their part in helping the countries making these recovery policies and making sure that they are aligned with the climate policy of the United Nations Framework Convention on Climate Change.

6. Conclusion
Climate change should be treated the way we are treating the Corona virus. The impacts of climate change are and will be much graver on human health, economy, ecosystem, society as a whole and on the wellbeing of the planet. The decrease in CO2 emissions that we saw during the first two quarters of the year will yield no benefit as it is feared that the economic recovery packages given by the government, to boast the fuel intensive industry, can be life threatening to the planet. The resurgence of the global economy in the form of V curve can change the dynamics of the climate to such an extreme level where there will be a no chance for any global intervention to make the reversal of climate change possible. So, there is a need of global intervention in the form of monitoring and control from international agencies to help countries make such economic recovery packages that focus on economy as well as the climate change. These policy designs should mainly focus on clean R&D and green physical infrastructure which can help reduce the carbon emission and achieve the goals of UNFCCC to
make the planet a safer place for the generations to come.

References


Ethical Leadership and Whistle-blowing Intentions: Mediating Role of Moral Identity

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ARTICLE DETAILS

ABSTRACT

Detachment of business practices and ethics led to a number of business scandals and unethical practices in workplaces. This urged scholars and practitioners to investigate the importance of morality at workplace. This study has highlighted the role of ethical leaders in shaping whistleblowing intentions of their subordinates. Moreover, this study has also investigated the role of moral identity. A total of four hypotheses, examining the direct effect of ethical leadership on moral identity and whistleblowing intentions and the mediating role of moral identity were proposed. This study adopted a time-lagged study design and collected information from employee-peer dyads at three points in time. Data was gathered from 214 employees working in the service sector. Results verified the role of ethical leaders in shaping moral identity of employees as well as their whistleblowing intentions. Along with, the findings also suggest that moral identity acts as an intervening mechanism between ethical leadership and whistleblowing intentions. Moreover, this study has highlighted multiple avenues for future research.

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1. Introduction

While morality is a cultural concern, it is of basic significance to professionals as well. Since, the severance of ethical/moral conduct and business has made the corporate world witness a number of scandals. Organizations are going through a lot due to unethical/imoral actions of employee. These unethical activities of employees upset the functioning by menacing its well-being (Randall, Saurage-Altenloh, & Osei, 2020). Therefore, organizations are solely concerned with increasing employees’
positive conduct so that they can save themselves from harm and encourage them to blow the whistle. Whistleblowing is an act to expose the unlawful, corrupt or criminal practices of the organization or its members to entities (individuals or organizations) which are authorized to take any action against them (Near & Miceli, 1985). Whistle blowing is exceptionally useful for organizations when the bad behaviour rises at the work environment (Callahan & Dworkin, 2000). Role of leadership in affecting and influencing subordinates and organizations cannot be denied. Precisely, ethical leaders can oblige as role model for their aides who may encourage as well as force them to act ethically and morally. Ethical leaders set clear moral standards and convey them in such a way that employees are motivated to report any wrongdoing which gives rise to whistle blowing behaviours (Brown & Trevino, 2010). An integrative review on ethical leadership by Lemoine, Hartnell, and Leroy (2019) calls scholars to observe the underlying links between ethical leadership and its aftermaths. They highlighted that a broad range of mediators and moderators should be linked with ethical leadership and outcomes. Johnson and Avey (2017) propose that there is a need to investigate new mediating components between morality and worker’s positive practices. Furthermore, specialists intermittently call for further exploring the connections among leadership and whistleblowing (Bhal, Verma, Gupt, & Dadhich, 2019; Cheng, Bai, & Yan, 2017). When employees work under a leader who acts as a source of ethical guidance in that case employees tend to be less unethical and have greater insight of providing security to the organization (Schaufeli & Bakker, 2004; Sharif &Scandura, 2013). On the other hand, search on whistleblowing argues that moral identity as an important individual level factor should be incorporated into research endeavours (Culiberg&Mihelic, 2016). Explicitly the significance of these leaders/managers in moulding subordinates’ moral identity and authorizing whistleblowing is a domain that demands exploration. The motivation behind this inspection is to verify that how ethical leadership will influence moral character which impacts their extra-role yet beneficial practice i.e., whistleblowing intentions. This study is an answer to the calls of researchers to investigate diverse outcomes of ethical leadership in new cultural settings to get a complete understanding of effects of such leaders (Işik, 2020; Lemoine et al., 2019; Moore, Mayer, Chiang, Crossley, Karlesky, &Birtch, 2019). Since previously, whistle blowing and ethical leadership were studied in western context hence, this study is extending the literature on ethical leadership, moral identity and whistleblowing intentions. Secondly, this study is theoretically advancing the literature by applying Social identity theory to explain whistle blowing intentions and moral identity. Figure 1 depicts the conceptual framework of this study.

![Figure 1: Conceptual Framework](image)

2. Literature Review and Hypothesis Development
This study draws support from basic tenants of Social Identity Theory proposed by Tajfel and Tumer (1985). According to SIT (1985) people categorise themselves and others into numerous social groupings, such as administrative affiliation, religious connection, and age unit. SIT (Tajfel &Tumer, 1985) states that self-concept is comprised of a “personal-identity” incorporating characteristics such as physical appearances/features skills, psychosomatic qualities, and “social-identity “covering relevant group taxonomies. Tajfel and Turner (1979) while proposing SIT state that individuals tend to maintain positive self-esteem and for that purpose they strive to gain a positive social identity. At first individuals
sort their environment in terms of groups (social categorization) they define themselves in terms of the society/organization/group they are a part of and count these referents as in-group whereas individuals not belonging to in-groups are out-group. These social groups provide individuals a sense of self in social world i.e. a way to define themselves (social identification). To maintain a positive self-concept individuals evaluate their in-groups positively and out-groups negatively (Social comparison).

2.1 Ethical Leadership and Whistle-blowing Intentions
Ethicality in leaders have been characterized by the researchers as ‘normative’ and ‘descriptive’, (Ciulla, 1998; Trevinno, Brown, & Hartman, 2003). Moral standards and contention have been the fundamental emphasis of ethical leadership. These moral standards serve as base for ethical behaviour and moral decisions by these leaders (Brown, 2007). Extant research highlights that being sensible, genuine and virtuous is said to be an ethical leader who impact their follower's ethical conduct by remunerations, disciplines/punishments and through effective correspondence/communication with their supporters (Işik, 2020; Ofori, 2009). The noteworthy effect of ethical leadership is upheld on employees in form of improved work execution, increased voice and other positive practices (Mayer, Aquino, Greenbaum, &Kuenzi, 2012; Stouten-et-al., 2010; Walumbwa et al., 2012). Ethical leaders aim at inhibiting negative climate at work and consider disclosure of illegal/immoral act as helpful for maintaining ethics in organization (Cheng et al., 2017) thus ethical leaders will encourage and rewards those who will report any unethical practice at workplace. Specifically, whistleblowing is a risky action, and it takes a lot of courage and sense of safety to blow the whistle (Vandekerckhove&Tsahuridu, 2010). According to SIT individuals align their actions according to norms and values of the group or individual entity they identified with. Leaders are a source of identification with the broader group i.e. organization (Ashforth&Mael, 1989) thus, individuals will act in a way that is according to expectations and standards set by leaders. As ethical leaders clearly encourage ethical conduct so pointing out an ethical issue under such leaders is most likely.

**Hypothesis 1:** Ethical leadership is positively related to whistleblowing intentions

2.2 Ethical leadership and Moral identity
With a change in situation or stimuli, a diverse set of identities are activated such that different identities are functional in different situations. Ethical leader, through his/her own behaviour, cues and rules/regulations shape moral values of followers which result in their activated moral identity (Gerpott et al., 2016).

Aquino and Reed (2002) put forth the definition of moral-identity as “A self-schema beliefs and ideas people hold about their own selves which is systematized around a set of moral traits/characteristics”. Moreover, this self-schema also motivates moral action. The ‘internalization’ and ‘symbolization’ are the two dimensions of moral identity. The self-importance of one’s moral-identity is depicted in the aspect of “internalization”, whereas the concern about how one’s actions are observed and interpreted by others is explained in “symbolization” dimension (Reynolds &Ceranic, 2007).

As individuals whose moral self-concept is not important or persistent could also tend to act and behave morally by following a moral exemplar i.e. ethical leader (Shao et al., 2008). The ethical character traits consist of consistency, credibility, predictability, honesty, sincerity and forthrightness thus, an ethical leader who portrays morally and ethically acceptable actions through enacting them as well as effectively communicating them to the followers, develops their moral identity.

SIT states (Tajfel & Turner, 1979) certain identities are activated depending upon the salience of the identity in a situation. Aquino and Reed (2002) posits that moral identity is also a manifestation of social identity and the referent in moral identity might be real group membership, abstract ideal or known individual (leader). Therefore, in accordance with SIT, it is likely that individuals working under ethical leader will have activated moral identity. Hence it is proposed that,

**Hypothesis 2:** “Ethical leadership is positively related to moral identity”
2.3 Moral Identity and Whistle Blowing Intentions

Whistleblowing speaks to a type of "moral protest" that includes revealing the unacceptable and immoral actions to people capable of taking the action. Whistleblowing is likely inspired by moral dynamic, a comparative judicious methodology provoked by representatives' affectability to moral issues and concerns (Valentine & Godkin, 2019).

Matherne, Ring and Farmer (2017) posited that a person’s moral identity and its standing for his/her self-concept acts as a regulatory mechanism that guides him/her in decision-making and escorts their behaviours in light of the ethical principles. Individuals high in moral identity tend to act morally and undertake actions that are morally/ethically acceptable. Honesty and fairness are part of moral identity of individual thus when individuals observe any illegal activity or morally questionable action done by either of their peer or the organization they feel an obligation to report this wrongdoing (Hu & Jiang, 2018). Specifically, moral identity forces individuals to evaluate, take decisions and react towards any event while taking moral principles into consideration (Aquino et al., 2002); hence, when they see any unethical happening around them they are motivated to report it and thus blow the whistle.

This can be supported through SIT (Tajfel & Turner, 1985) which supports this notion that an individual aligns its activities to the activated identity. Thus, when moral identity is activated the actions against this identity will be moral too. Whistleblowing has ethical meanings linked to it thus any activity that is harmful for any stakeholder or society, will be reported for collective benefit. Hence it is proposed that

**Hypothesis 3:** Moral identity is positively related to whistleblowing intentions

2.4 Ethical Leadership and Whistleblowing Intentions: Moral Identity as Mediator

Leaders have a significant impact on follower's practices and mentalities, as they can drive them towards a shared objective through their capacity, personality arrangement and notoriety (Hogg, 2001). Ethical leaders are moral models which enact moral character of devotees which result in positive and alluring ethical activities (Gregpott et al., 2017). Studies have proven that moral identity undoubtedly supports pro-social deeds such as philanthropy and dejects unethical behaviours including deception (Aquino & Reed, 2002).

Employees with strong moral characters are especially touchy and responsive to good and ethical issues as compared to those with low or "feeble" moral identities (May et al., 2015). Normally, people who witness offense in their workplace lean toward not to approach to unveil the bad behavior and remain quiet because of hazardous and uncertainty components related with the whistleblowing conduct (Isa et al., 2020) however, support from ethical leader and enforcement from the moral identity makes them able to stand up and develop their whistle blowing intentions.

According to SIT when a certain identity is formed, individuals adopt and align their own values and goals with that of the group they have identified with (depersonalization) and thus act according to those norms as they want to maintain a positive identity, and enhance their self-esteem. Thus, ethical leader will activate followers’ moral identity through priming and provide visible and subtle cues for activating moral self-concept. This will motivate them to report any wrongdoing (whistle blowing) to party who is in authority of rectifying the unethical or immoral act. Therefore, it is proposed that:

**Hypothesis 4:** Moral identity will mediate the relationship between ethical leadership and whistle-blowing intentions

3. Methodology

3.1 Sample and Procedure

This research adopted time lagged design by collecting data at 3 point of time from employees working in service sector. Such that data for IV (Ethical Leadership) was collected at time 1, data for mediator (Moral Identity) at Time 2 and data for DVs (Whistleblowing Intentions) was collected at Time 3. Time lag between each time slot was 2 weeks. Convenient sampling technique was used due to scarcity of time and resources. Respondents who provided data at time 1 were again contacted at time 2 and time 3.
They were instructed to provide a primary key so that their responses can be matched. 500 questionnaires were distributed at time1, 420 at T2 and 300 at T3. After matching the responses and discarding unusable responses a total of 214 responses were retrieved.

The analysis of demographic characteristics revealed that majority of the respondents were females (53.7%). Maximum respondents were unmarried (62%), possessing bachelor’s degree or diploma/professional certifications (55.1%). Moreover, their overall work experience with their current organization ranged from 1 month to as long as 25 years (Mean=4.94; SD=4.41).

3.2 Measures
3.2.1 Ethical Leadership
To measure the Ethical Leadership (EL) scale developed by Brown et al. (2005) is used. A sample item of Ethical leadership is: “My leader conducts his/her personal life in an ethical manner.” Response is obtained from 7-point scale (1 = strongly disagree - 7 = strongly agree). Cronbach alpha = 0.84.

3.2.2 Moral Identity
A scale developed by Aquino and Reed (2002) is used. Sample item includes: “I am committed to my moral principles”. Response are obtained from 7-point scale 1 = strongly disagree - 7 = strongly agree). Cronbach alpha = 0.92.

3.2.3 Whistle Blowing Intentions
To measure the Whistle blowing Park and Blenkinsopp’s (2009) scale is used which consisted of four items. Sample item includes: “I would report it by using internal procedures”. Response are obtained from 7-point scale (1 = strongly disagree - 7 = strongly agree). Cronbach alpha = 0.89.

The data was analysed to retrieve results by using SPSS and AMOS software. Moreover, Correlation analysis ensured discriminant validity and CFA in AMOS software ensured convergent validity of responses. At last, regression analysis was done to test the main effect and mediation hypothesis using PROCESS macro.

4. Results
Previous research has highlighted that demographic variables significantly affect whistleblowing intentions (Chiu, 2003; Sims & Keenan, 1998) and moral identity (Hardy, 2006; Krettenauer, Murua, & Jia, 2016). Therefore, the respondents also provided data regarding their demographics such as age, gender, designation, marital status etc. To identify the control variables ANOVA test was conducted. The results show that gender of respondents were significant against whistle blowing intentions therefore, it was controlled in the analysis.

4.1 Confirmatory Factor Analysis (CFA)
CFA yielded factor loadings along with model fit indices. The regression score weights of all items were greater than 0.3, hence all items loaded distinctly onto their latent variables. The factor loadings of all variables are given in following Table 1.

To establish discriminant and convergent validity CFA was performed using AMOS software. Results are reported in table 1. A three factor model was compared with a single factor forced model. Results indicate that three factor model had better fit ($\chi^2$/Df = 2.79; CFI = 0.86; GFI = 0.80; AGFI = 0.75; NFI = 0.79; RMSEA = 0.09) as compared to single factor model ($\chi^2$/Df = 5.99; CFI = 0.59; GFI = 0.58; AGFI = 0.49; NFI = 0.55; RMSEA = 0.15) . Details of CFA are given in Table 1.
Figure 2: 3 Factor Model (EL-MI-WI)

Figure 3: Single Factor Model

Table 1: Results of CFA

<table>
<thead>
<tr>
<th>MeasurementModels</th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\chi^2$/Df</th>
<th>CFI</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL-MI-WI (3 factor)</td>
<td>662.2</td>
<td>237</td>
<td>2.79</td>
<td>0.86</td>
<td>0.80</td>
<td>0.75</td>
<td>0.79</td>
<td>0.09</td>
</tr>
</tbody>
</table>
4.2 Descriptive Statistics

Mean values along with Standard Deviations (SD) and correlation are presented in table 2. The mean value and SD for EL was 3.55 (SD=1.12); 3.37 (SD=1.467) for MI and 3.84 (SD=1.56) for WI.

4.2.1 Correlations

Correlation analysis provided initial support and directions for the proposed hypothesis. The results of correlation analysis revealed that Ethical Leadership (T1) has a positive correlation with Moral Identity (T2) (r = .30, p < .001) and Whistleblowing Intentions (T3) (r = .33, p < .001).

Moreover, Moral identity has a significant positive correlation with whistleblowing intentions (r = .58, p < .001). All the values for Pearson coefficient were in acceptable range i.e. r < 0.7 ensuring discriminant validity of the study constructs.

### Table 2: Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Gender</th>
<th>EL</th>
<th>MI</th>
<th>WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.61</td>
<td>.487</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL (Time 1)</td>
<td>3.56</td>
<td>1.14</td>
<td>-.08</td>
<td>(0.84)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI (Time 2)</td>
<td>3.37</td>
<td>1.48</td>
<td>-.09</td>
<td>.30**</td>
<td>(0.92)</td>
<td></td>
</tr>
<tr>
<td>WI (Time 3)</td>
<td>3.84</td>
<td>1.56</td>
<td>-.18</td>
<td>.33**</td>
<td>.58**</td>
<td>(0.89)</td>
</tr>
</tbody>
</table>

Note: N=213; Alpha Reliabilities are given in parentheses. EL= Ethical Leadership, MI= Moral identity, WI=Whistleblowing Intentions

*Correlation is significant at 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level

4.3 Hypotheses Testing

For hypothesis testing PROCESS analytical strategy was used. Results of main effect hypotheses i.e. H1, H2 and H3 as well as mediation hypothesis i.e. H4 were obtained by utilizing this technique. Model 4 in PROCESS macro provides results for mediation model hence for obtaining the results for main and mediation hypothesis model 4 was run.

The results fully support the direct effect hypothesis. The association between ethical leadership and whistleblowing intentions was also proved (B=.58; p=0.000). Similarly, a positive and significant association was found between ethical leadership and moral identity (B=0.28; p<0.000). Moreover, a significant positive association was found between moral identity and whistleblowing intentions (B=0.18; p<0.01). In summary all direct effect hypothesis were proved. Detailed results are presented in Table 3.

### Table 3: Results of Direct Effect Hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>R</th>
<th>R²</th>
<th>B</th>
<th>SE</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 EL → WI</td>
<td>.55</td>
<td>.30</td>
<td>.58</td>
<td>.07</td>
<td>8.55</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>.41</td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.4 Results of Mediation Hypothesis
The mediation hypothesis were supported such that results of Sobel test show that moral identity mediates the positive relationship between ethical leadership and whistleblowing intention. The test of normal theory test highlights a significant mediation of moral identity (B=.11; p<.05). Moreover, a non-zero value between upper and lower level CI (0.01; 0.21) also support meditational role of moral identity between ethical leadership and whistleblowing intention. Detailed results are presented in table below.

Table 4: Results of Mediation Hypotheses

<table>
<thead>
<tr>
<th>Indirect Effect and Significance Test Using Normal Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobel Effect and SE Z P</td>
</tr>
<tr>
<td>Sobel .11 .04 2.53 .011</td>
</tr>
</tbody>
</table>

Bootstrap Results for Indirect Effects

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>M SE LLCI 95% ULCI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Effect</td>
<td>.11 .05 .01 .21</td>
</tr>
</tbody>
</table>

Note: N=213; EL= Ethical Leadership, MI= Moral identity, WI = Whistleblowing Intentions

5. Discussions & Conclusions
Past examination sets that whistleblowing strategy may be successful if the leaders give a situation, which supports and strengthens the moral conduct of employees and our results also support this notion. Individual’s personality is dynamic as it adapts as the circumstances change (Vallacher, Read,& Nowak, 2019). Our investigation underpins the possibility that an ethical leader can impact a person's ethical self-idea for example moral identity and actuate certain part of one's ethical character which shape the consequent practices valuable for organizations and its employees (whistle-blowing). Since a company's virtuous atmosphere verify that what ethical lead and practices are normal from workers in this way representatives shape their practices likewise (Singh, Verbek, & Rhoads, 1996). In this way organizations can keep up morals and implement ethical set of principles to make their employees ethical and courageous enough to speak up against ethical adversity.

Given the significance of whistleblowing for organizations, existing literature has begun to pay attention towards understanding the factors that encourage employees to blow the whistle when they witness any unethical or immoral acts in their surroundings (Latan, Jabbour,&Jabbour, 2019; Valentibne&Godkkin, 2019). Since whistleblowing intentions are strong predictors of actual whistleblowing (Tarjo,Suwito, Aprilia, & Ramadan, 2019) thus this research has added by highlighting moral identity as well as ethical conduct of immediate supervisors/managers is a major motivational factor behind whistleblowing. This study utilized basic tenants of SIT to support the proposed associations. This study has also enhanced literature on ethical leadership by investigating it in Asian settings. The findings support the notion that ethical conduct on leaders part is crucial for both employees and the employing organizations (Koopman, Scott, Matta, Conlon, &Dennerlein, 2019; Kuenzo et al., 2020). This research highlights importance of leaders conduct in encouraging whistleblowing intentions along with employees own moral awareness.

These results are in line with previous researches which confirm that under supervision of ethical leaders employees feel empowered and psychologically secure such that they are willing to raise voice and speak against any ethical dilemma within their workplace (Chen & Hou, 2016; Islam, Ahmed,& Ali, 2019;Lam, Loi, Chan,& Liu, 2016; Walumbwa &Schaubreock, 2009). The results suggest that ethical leaders’ behaviours serve as a motivational source and support system that encourages employees to raise voice against any ethical odds within their workplace.
In similar vein, leaders have a significant influence on their subordinate’s self-identity (Moore et al., 2019). These outcomes suggest that when employees work under an ethical leader, who actively engages and encourages ethical conduct of subordinates, then they begin to define themselves morally and ethically and their moral identity is shaped.

6. Limitations
Overall, this study advances the literature, however, there are some limitations that must not be disregarded. First of all, dearth of time and resources allowed data gathering from only few organizations in service sector which affects the generalizability of findings of this study. For more consistent results, respondents from a broad range of professions should be accessed and data from wide-ranging organizations belonging to each/diverse sectors should be collected and analyzed. Moreover, the time slot between T1, T2 and T3 responses was one week whereas a pure longitudinal research design, collecting data after long intervals will help in getting more reliable results.

7. Future Research Directions
A number of future search guidelines are emphasized through this study. First of all, ethical leadership acts as independent variable in this research whereas some other constructs like spiritual leadership, participative leadership, or servant leadership can be taken as independent variable and its impact on diverse dependent variables can be assessed. Specifically, it is quite possible that spiritual leaders encourage morality at work (Yang, Liu, Wang, & Zhang 2019), which in turn bolsters moral identity of their subordinates. Moreover, apart from leadership role, an organizational climate and culture plays in shaping moral identity of employees must be investigated. For instance, ethical climate may encourage employees to act morally and an uncivil or cynical workplace may result in immoral employees with least concerns for their moral selves (Kuenzi, Mayer, & Greenbaum,2020). These avenues are open for further investigation. Since, research has highlighted the ethical awareness of employees as a strong predictor of whistleblowing (Latan et al.,2019; Fredin, Venkat, Riley, & Eldridge, 2019). Thus, the current study must be replicating by incorporating other factors that might affect the outcome variables studied here. Future studies inspecting additional mechanisms by way of which leader ethical identity internalization influences subordinate behaviours could be useful.

References


The Moderating Effect of Special Peer Support on the Relationship between Remuneration and Employee Commitment

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ABSTRACT

The aim of this study is to examine the effect of remuneration on the level of commitment of full-time restaurant staff working in Hotel industry of Malaysia. This study also looks into the moderating effect of Special Peer Support (SPS) on the relationship between remuneration and Employee Commitment (EC). Data were collected from 380 full time employees working in large scale restaurants of Malaysia. Smart PLS-2 software was used to analyse the data. The findings reveal that there exists a significant and positive impact of remuneration on EC. Moreover, the results also indicate that SPS moderates the remuneration and EC relationship. The findings of the current study suggest that the practitioners and policy makers should increase the level of employee commitment through enhanced remuneration and special peer support for the purpose to achieve organizational objectives.

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1. Introduction

Hospitality industry positively affects the local businesses, as visitors spend more money in hotels, resorts and convention centres. It also benefits the economy since visitors purchase various goods and avail services. Moreover, they purchase locally manufactured products, souvenirs and accessories. The role of service industry in the economic and social development of both the developing and developed countries has been recognized. The role of workers in the service sector is inevitable and they need to be motivated. Highly motivated employees are valuable assets of any organization. Previous research has emphasised that highly devoted and committed employees are vital and each of them can contribute to the success of the organization (Ismail, Zainuddin, & Ibrahim, 2010).

However, the lack of committed and motived employees is still a major issue for the hotel industry, especially in Malaysia (Federation of employers in Malaysian, 2011). These days, companies face more challenges in their pursuit of greater business. Hence, the commitment of employees to their professions and their organisations is vital, because it is one of the determinants of organisational performance. For
example, committed employees are likely to spend extra time and effort to achieve organizational goals (Ali, Rehman, Ali, Yousaf, & Zia, 2010). Thus, retaining of highly motivated and committed workers is therefore an essential and recent concern in the tourism sector in Malaysia. Likewise, previous researchers such as Davidson et al., (2010) and Ishak et al. (2011) have argued that perhaps the tourism sector has been experiencing a high employee turnover, and this situation has adversely affected the long-term growth and survival of the companies in shape of poor job performance, profitability, client services and safety standards. Therefore, management should take steps to mitigate the employee turnover rate in their organisations, for which they need to investigate the significant factors that contribute to the employees’ turnover. The major factors contributing to turnover in the service sector in Malaysia include the salary, wages and remuneration of employees as well as support from supervisors (Sangaran & Jeetesh, 2015).

1.1 Rationale of the Study

Previous research has been conducted on remuneration, SPS and EC, but little attention has been given to these factors in the context of hospitality industry of Malaysia. Moreover, the majority of the prior studies investigating the interplay between the peer support, remuneration and employee commitment have been conducted in the developed countries while, less attention has been paid to the interaction between the mentioned constructs in the developing economies. Thus, the purpose of the study is to investigate the moderating role of SPS on the relationship between remuneration and employee commitment in a developing economy’s context like Malaysia.

2. Literature review

2.1 Employee Commitment

Commitment can be defined as feeling of obligation by exerting effort towards organizational goals (Porter, Steers, Mowday, & Boulian, 1974). Employee commitment is associated with many factors of job behavior like job satisfaction, turnover, employee performance and organizational citizenship behaviors (Porter et al., 1974; Tran, Nguyen, Nguyen, & Ton, 2020). Commitment is viewed as a more active and positive attitude towards the organization (Aswathappa & Dash, 2020; Chhabra, Ubeja, & Sharma, 2020). J. P. Meyer and Allen (1997) explained that "commitment is arguably one of the most important factors involved in employees support for change initiatives". EC shows a worker’s emotional attachment to that organization where he/she works, and will stay there due to that degree of attachment with the organization (p.474).

Employees who have a higher degree of commitment towards their organization are less likely to leave than those who are less committed (Albrecht & Marty, 2020; Liu, Wang, & Liang, 2020; I. Meyer & Nujjoo, 2012). This indicates that when organizations provide adequate remuneration and care for workers, it would make employees to stay longer with their organization (McEntee, Roche, Kostadinov, Hodge, & Chapman, 2020). This phenomenon is consistent with the Social Exchange Theory (SET) of (Blau, 1964), which means that when workers get enough remuneration from the organization, they are more happy and thankful to pay back through dedication and sense of commitment (Adams & Jacobsen, 1964). In addition, enormous work is being carried out on EC in different sectors and counties, while there is still little data available from underdeveloped countries, especially in the Malaysian context. Prior researchers like Balay (2000) argued that there is still limited research available on EC, therefore, This research is an attempt to explore the linkage of remuneration and EC between the hotel industries of Malaysia.

2.2 Remuneration and Employee Commitment

Previous research noted that in the tourism industry, Human Resource Management (HRM) practices such as pay, job satisfaction, career growth and many other factors leading to EC and enhanced organizational performance. It has been contended that turnover ought to be decreased in firms where HRM practices are seen and managed as investment in the professional development of employees (Allen, Shore, & Griffeth, 2003). Likewise adapting proper HRM practices enhances commitment, decreases turnover and increases the rate of retention (Chanda & Goyal, 2020; Memon et al., 2020).
Similarly, compensation is the primary influencing tool for employees. Many organizations have been using this tool to inspire, motivate and retain skilled and experienced workers (Mendis, 2017).

By providing adequate compensation to individuals working in the organization has a reassuring effect on both employees' and organizational performance. Remuneration is a competitive advantage for the company to improve performance and employee commitment (Ahmad, Shah, Bibi, & Shah, 2017). Similarly, Milgo, Namusonge, Kanali, and Makokha (2014) asserted that the compensation has an impact on the organizational commitment. Ahmad et al. (2017) reported that remuneration is the main tool to motivate employees and enhance their EC. Thus, employee commitment helps an organization to achieve the desired organizational goals (Berberoglu, 2018; Singh, 2019).

Most of the factors that impact EC have been explored and tested empirically by different scholars, although, contradictions emerge from the empirical results of each review, such as studies conducted by Ahmad, et al. (2019) and Ahmad, Shah, Bibi, & Shah (2017) reported that there is a positive and significant link between remuneration and commitment. While, Chew and Chan (2008) and Nijhof, de Jong, and Beukhof (1998) claimed that remuneration is not always an adequate incentive to retain professional workers. The contradictory relationship between remuneration and the commitment of employees needs to be further explored. Henceforth, this research presumed that:

**H1:** If remuneration increases then employee commitment will also increase.

### 2.3 Special Peer Support as Moderator

Special peer support or Co-workers are the individuals who carry out their routine work at the same level in the organization (Ahmad, Abdul Majid, & Mohd Zin, 2016). Recent research has shown encouraging evidence of association between social support, work stress and health of workers (De Rijk, Blanc, Schaufeli, & De Jonge, 1998). Special peer support is therefore critical and plays a vital role in EC and employment-related patterns (Chiaburu & Harrison, 2008). Similarly, Weasmer and Woods (2002) also revealed positive outcomes for SPS such as a positive feeling towards teaching, increased motivation, decreased job stress, enhanced career development, and improved work performance. SPS has the capability to produce a favorable or unfavorable climate. The previous studies have highlighted that supportive colleague makes job easier and joyful enough to enhance employee commitment and motivation (Ellickson & Logsdon, 2001)

Similarly, Saif, Malik, and Awan (2011) contended that SPS is the primary predictor of employee commitment. Social Exchange Theory (SET) of Blau (1964) also suggested that when employee receive support from their organization as well as from peers, they feel to repay the organization in the form of devotion and commitment (Ahmad et al., 2016; Chaudhuri, 2011). A relatively very few studies have focused on examining SPS as a moderator in the workplace and its impact on EC. This study therefore suggests SPS as a moderator on the relationship between remuneration and the EC. On the basis of aforementioned arguments, we hypothesized that;

**H2:** Special peer support moderates the relationship between the remuneration and EC.

### 3. Methodology

#### 3.1 Procedure and Participants

Survey data were collected from employees working in large scale restaurants located in different Hotels of Malaysia such as Terengganu, Sibu, cameron highlands, Putrajaya, Kuantan, Kalag, and Negeri Sembilan. Total 520 survey questionnaires were distributed randomly among the full-time employees, out of which 410 were returned back. Thirty partially filled questionnaires were discarded after which 380 questionnaires were found complete in all respects and thus used for the further analysis.

#### 3.2 Measurement

This study used the previous measurement scales for assessing the constructs. Remuneration was measured by 5 items scale adapted from Teclemichael Tessema and Soeters (2006). EC was measured by 9 items scale adapted from Mowday, Steers, and Porter (1979). For measuring the SPS, the study adapted a 10 items scale from Ducharme and Martin (2000). All the items were measured on 5-point
Likert Scale that allowed the respondents to express the level of their agreement and disagreement between score ranges from 1 to 5.

4. Results

4.1 Convergent validity

The data was analyzed using Smart-PLS version 2.0. To establish convergent validity in accordance with Hair, Anderson, Babin, and Black (2010), who suggested the three types of estimation including the factor loading, Average Variance Extraction (AVE) and the Composite Reliability (CR). As indicated in the Table 1, the items were found to be with loadings greater than 0.5, thus were retained as mentioned by Hair et al. (2010). In total, 7 items (SPS 5, SPS 6, SPS 7, SPS 8, SPS 9, SPS 10, and RM1) were removed due to the loading less than the suggested threshold. The rest of the items, 17 in total, were retained. Table 1 also shows that CR for all the constructs was found to be greater than 0.7, with the AVE values above 0.5, as suggested by Hair et al. (2010).

| Table 1: Convergent Validity Analysis (Items, loading, AVE and CR) |
|---|---|---|---|
| CONSTRUCT | ITEM | LOADING | AVE | CR |
| Rem* | RM2 | 0.738 | 0.784 | 0.917 |
| | RM3 | 0.801 | 0.890 |
| | RM4 | 0.931 | 0.941 |
| | RM5 | | |
| SPS** | SPS1 | 0.894 | 0.782 | 0.923 |
| | SPS2 | 0.819 | 0.823 |
| | SPS3 | 0.823 | 0.887 |
| | SPS4 | 0.783 | 0.837 |
| EC*** | EC3 | 0.764 | 0.731 | 0.941 |
| | EC4 | 0.880 | 0.956 |
| | EC5 | 0.837 | 0.946 |
| | EC6 | 0.788 | 0.941 |
| | EC7 | 0.887 | 0.611 |
| | EC8 | 0.887 | |
| | EC9 | 0.956 | |
| | EC1 | 0.941 | |
| | EC2 | 0.611 | |

*Remuneration, **Special Peer Support, *** Employee Commitment

4.2 Discriminant Validity

For the current study, the discriminant validity was obtained by analyzing the square root of the AVE while comparing the outer loads with cross loadings (Duarte & Raposo, 2010; Hair et al, 2013).

| Table 2: The Square Root of AVE and the correlations of the latent variables |
|---|---|---|
| | EC | REM | SPS |
| EC | 0.841 | 0.848 | 0.867 |
| REM | 0.134 | 0.330 | 0.867 |
| SPS | 0.191 | 0.848 | 0.867 |

As reported in Table 2, the diagonal values are greater than the other value of the row and column in which they are located, thus highlighting and confirming the discriminant validity (Hair et al, 2010).

4.3 Structural model

To examine the link between the remuneration, SPS and EC, the bootstrapping technique was used for data investigation. In addition, 5000 bootstraps were used to assess the structural equation model. The results of the conceptual framework are illustrated in Figure 1 and Table 3.
Table 3 illustrates that there is a significantly positive correlation between remuneration and EC (beta=.187, t-value=2.37 and p-value<0.01). Hence, hypothesis 1 of the study is supported. Moreover, by using product indicator approach, the moderating effect of SPS was checked on the remuneration and EC link, as shown in Figure 2. The results (beta=.251, t-value=3.07 and p-value<0.00) indicated that SPS moderates the relationship between remuneration and EC. Hence, the hypothesis 2 of the study is supported.
5. Discussion
The aim of this study was to assess the effect of remuneration on EC in the context of large-scale restaurants in Malaysia. The results of the research indicated an imperative relationship between REM and EC. The findings of the current study are in line with the prior studies of Ashafaq Ahmad, Kura, Bibi, Khalid, and Rahman Jaaffar (2019) who have highlighted positive and significant effect of remuneration on EC. This suggests that if an organization creates a fertile work environment to its employees and provides them compatible remuneration, they will show positive behavior towards organization and will work with zeal and zest in exchange. Moreover, they become committed and will work with the organization for a longer period of time.

Moreover, the results indicated that SPS significantly moderates the relationship between remuneration and EC. In addition, employees feel more obliged and honored if they are supported by co-workers that further leads to enhancing the commitment level of employees. This situation also endorses the principle of reciprocity of the Social Exchange Theory of Blau (1964), which describes that workers who believe that the organization offers adequate remuneration, and receives adequate support from peer are proved to be more loyal and committed.

6. Implications
This study not only makes a significant contribution to current literature on EC, but also advances the concepts and measurement of EC, which is still somewhat unique in the context of hotel sector, especially in Malaysia. The study was undertaken to provide guidance on the inconsistent outcomes reported by prior research and an attempt to resolve the deficiencies identified in the existing research. The findings of the current study provide an in-depth understanding and guidance to policy makers and practitioners on enhancing remuneration and employee commitment. Moreover, educate the practitioners on how employees receiving adequate support from SPS and sufficient remuneration from the employer can lead to increased level of commitment and improved organizational performance.

7. Limitations and suggestions for future research
The current study concentrated only on large restaurant situated in Hotels of Malaysia for data collection, other sectors such as health, education, and banking sectors may also be focused on in future studies to gauge the true nature of the study’s constructs. Second, survey data were collected from employees working in restaurants located in Malaysia, without considering the small-scale restaurants. Futures studies are suggested to be carried out on small scale restaurants and both the results may be compared with each other. Finally, current study considered SPS as a moderating variable, so future
research may add other variables such as work environment, and managerial support as moderators or mediators for in-depth insights and understanding on the interaction between these variables.

References


Training and Employee Performance: Mediating Role of Job Satisfaction in Civil Society Organizations of Pakistan

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ABSTRACT

In the advanced business world, training is an indispensable tool used to build the new abilities, skills and enhance the employee’s knowledge which in result boost the employee performance. The current research aims to investigate how training influences employees’ performance in the presence of job satisfaction as a mediator in civil society organizations of Pakistan. The quantitative survey research design was used. A sample of two hundred and nineteen employees was drawn from civil society organizations of Punjab, using the Krijchi and Morgan Table. A questionnaire was adopted as a tool to collect the data. Hierarchical regression was run to analyze the mediating impact of job satisfaction on the relationship between training and employee performance. The results indicated that training has a direct positive relationship with the performance of the employee. Further, job satisfaction partially mediates the relationship between training and employee performance. It is suggested that need base and interactive trainings should be provided to enhance employee’s performance.

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1. Introduction

In a global market, improved capabilities, knowledge and skills of the workforce are imperative to take competitive advantage (Mohammad, 2019). Thus, organizations need to create new capacities and skills of their employees through human resource practices. Training is one of the most pervasive techniques used to enhance the abilities of human resource. Effective training programs are essential to develop the desired knowledge, skills and capabilities of the employees and to cope with the upcoming challenges (Wei-Tai, 2006). Hence, employee performance can be enhanced through job-related training which enables employees to perform the specified task amicably which become as source of enhancing the satisfaction level of employees (Aktar et al., 2012).
Research has identified various factors contribute to an employee’s performance and organizations’ competitiveness. Industry experts, human resources management researchers and psychology scholars have acknowledged that for many decades job satisfaction has been an important outcome of human resource practices to develop the skills of employees and improve organizational performance. According to Georgellis and Lange (2007) the correlation between organization sponsored training and job satisfaction significantly diminish the negative behavior, such as absenteeism, early retirement and turnover in different sectors like education sector, service sector, hotel industry (Davidescu, et al. 2020; Muhammad, 2019). However, there is research work in the field of civil society organizations (CSOs).

Civil society organizations are imperative burden shapers of the government to achieve the common objectives of sustainable development. (Kaldor et al., 2012). In addition, CSOs are actively playing the role in policy making agendas and global governance through implementation, monitoring and evaluation (USAID, 2015). Like other organizations, a CSO also has main infrastructure and human resource which may contribute to the performance, productivity or output of a particular organization. Although, employees are the most valuable assets of any organization in accomplishing the project goals, however, employees in such organizations are always engaged in short term projects which are diverse in nature and required to be completed within the specified time period. These diverse projects call for specific task-based skills and knowledge to perform. Thus, employees need to develop a different skill-set basing on the project requirements. Hence, training can build up these skills, capacity and competencies of CSO employees to perform project demanded tasks more amicably. Thus, if the employees are provided with free effective training, it would result in enhancing their skills to do the desired project related task efficiently. Timely completion of tasks would further enhance job satisfaction thereupon boosting their performance.

Job means people involved performing the specific task and the environment, working with colleagues, incentives make the employee more satisfied with the organization. Job satisfaction term was first time used by Hop pock in 1935. “Any contribution, psychological, physical, and environmental circumstances that cause a person truthfully say, ‘I am satisfied with my job” (Siddique & Farooqi, 2014). According to Rehman et al. (2013) more satisfied employee has more positive feelings toward their job and those employees who are not happy/satisfied with their surroundings may have negative attitude. According to Cheung and Wu (2012) job satisfaction is positively associated with employee performance, productivity, organization identification and organizational commitment. Whereas, employee performance automatically increases when the worker is satisfied and more involved in the job.

Employee performance can be measured in terms of productivity, absenteeism and employee satisfaction (Osunde, 2015). Various factors influence employee performance like, boss and employee, company’s overall policies, organization environment, training and professional development of employees (Abbas & Yaqoob, 2009). Training is one of the effective tools for the improvement and interpersonal skills of employees as it has been recognized as the best approach having strongest impact on an organization’s profitability. In result, organization’s performance and productivity increase by accelerating the training programs (Amin et al., 2013; Aragon & Valle, 2013).

On the other hand, some employees won’t be able to perform their job-related tasks due to lack of certain skills. This leads to the dissatisfaction among less qualified and less skilled employees. To cater such dissatisfaction, organizations conduct trainings like, workshops, conference, guidelines for day-to-day activity to help employees learn and perform and to feel more satisfied with the working environment (Aragon & Valle, 2013; Yeh & Hong, 2012). Adesola et al. (2013) found the positive and significant relation between job satisfaction and training and concluded that high level training program increase the level of job satisfaction which consequently, increase the abilities of employees to do their task in an organized way. Therefore, it is argued that training not only facilitates employees to perform their tasks well, it also minimizes their level of dissatisfaction with their jobs.

Besides, satisfaction of an employee can be increased by giving those rewards, benefits, promotion and even appreciation. Rewards can be classified into two forms; intrinsic rewards and extrinsic rewards.
Intrinsic reward is something internal to someone that is determined by personal enjoyment in work. It includes rewards such as: personal growth, sense of enjoyment, and professional achievement. While, extrinsic rewards deal with the benefits which are given by the organization, such as, pay, fringe benefits, bonus and career development opportunities (Priya & Eshwar, 2014). Therefore, when the policies made by the management are in conflict with the expectations or interests of employees, satisfaction level among employees will be low (Rothbard et al., 2005). It can be concluded, in result, job satisfaction would lead to better employee performance if the expectations or interests of employee towards the job would be increased (Abbas & Ashiq, 2020).

In addition to aforementioned literature, various researchers examined the mediating role of job satisfaction between HRM practices and employee performance (Ali & Rehman, 2014; Zumrah et al., 2013). They found that job satisfaction has significant effect on employee performance and fully mediates the relationship between HRM practices, especially training and employee performance.

Employee’s skills, knowledge capabilities and confidence make the organization more productive and compatible in the business world (Ahmad et al., 2014). Training is an efficient and indispensable tool for both organizations and employees. Organizations spend huge amount of money on employees’ need base training to enhance their performance and increase their satisfaction level (Falola, 2014). Thus, it can be hypothesized that training increase the employee performance in the presence of job satisfaction as mediator in this relationship. Therefore, following hypotheses can be formulated.

H1: There is a significant relationship between training and employee performance in CSOs.
H2: Job satisfaction significantly mediates the relationship between training and employee performance in CSOs.

2. Conceptual Framework
Based on the aforementioned literature review and hypotheses, the following conceptual model was proposed which illustrates the mediating role of job satisfaction on the relationship between training and employee performance.

Figure 1. Conceptual framework of the study

3. Research Methodology
The current research adopted a quantitative survey research design. The convenient sampling technique was used. The total two hundred and nineteen employees working on projects in different CSOs were selected using the Krijichi and Morgan table. A self-reported questionnaire was adopted to capture information to test the hypotheses. The role of “Training” was measured with 12 item scale adopted from Abbad (2004). Similarly, to measure the “Employee’s performance”, 8-items scale was used, developed by William and Anderson (1991). To assess the “Job satisfaction” level of employees, 20-items scale developed by Chang et al. (2010) was adopted. All variables were rated on a 5-points Likert scale ranging from strongly disagree to strongly agree. Questionnaires were distributed among employees during a training session. The data were analysed through the means, standard deviations and correlation of all variables. In addition, to test the hypotheses, Baron & Kenny (1986) mediation method was used. For this linear regression and Hierarchical regression was computed by using the SPSS v.22.
3.1 Reliability of the Instrument

Cronbach’ Alpha was used to measure the internal consistency and reliability, mostly its value ranged from 0 to 1 but the most satisfactory value considered more than 0.6 for scale to be reliable (Alzalabani & Modi, 2014). Table 1 shows the values of Cronbach’ Alpha for all scales.

Table 1. Cronbach Alpha of each scale of the current study

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Training Impact Scale</td>
<td>0.768</td>
</tr>
<tr>
<td>2.</td>
<td>Employees Performance Scale</td>
<td>0.741</td>
</tr>
<tr>
<td>3.</td>
<td>Job Satisfaction Scale</td>
<td>0.745</td>
</tr>
</tbody>
</table>

The above table shows the internal reliability of each item in the scale. All the reliability values are above the cut-off point 0.7.

4. Results

In demographic profile section, five main questions were asked from the respondents regarding their age, gender, working experience in the current organization and attended trainings. Frequency and percentages were computed of these categorical variables. The results indicated that there was total 106 females and 113 males, that is, 48% females and 52% males respectively, were participated in the study. These statistics showed that the selected sample was gender balanced. The categorical variable “Age” was distributed into three categories, i.e., less than 25 years old, in which 41 participants lied in this group, which is 18.7% of the total sample. Further, 116 participants (53%) were belonged to 25-35 years of age group and in the “more than 35 years” age group, there were 62 respondents (28.3%). The third categorical variable of the study was the year of experience in the current civil society organization which was measured onto three levels. The employees having “one year” working experience were 45 (20.5%), whereas, the employees having “2 to 4 years” working experience were 120 in total, which was 54.8% of the total sample. In the last category of experience “5 years and above”, there were total 54 (24.6%) participants. These frequencies showed that half of the respondents were having 2 to 4 years of experience. Further, the last question was about the number of trainings that the respondents already had participated. There were three levels of this categorical variable. Participants who had attended “one training” were 48 (21.9%), whereas, 133 participants (60.7%) had already attended “2-4” trainings. While only 38 participants which is 17.4% of the total participant were attended “more than 4 training”.

Table 2. Association between the categorical variables

<table>
<thead>
<tr>
<th>Association between the variables</th>
<th>( \chi^2 ) Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender * No. of trainings</td>
<td>( \chi^2(2) = 9.004^* )</td>
</tr>
<tr>
<td>Gender * working experience</td>
<td>( \chi^2(1) = 2.601 )</td>
</tr>
<tr>
<td>No. of trainings * working experience</td>
<td>( r_T = 0.542^{***} )</td>
</tr>
</tbody>
</table>

To investigate the association between gender of the respondents and the total number of trainings in their career, Chi square test of independence was run. Results revealed a significant association between the variables (\( \chi^2(2) = 9.004^{**} \), \( p < .05 \)). In addition, it was also found that as compare to female participants (26.3%), male participants (73.7%) attended the “more than 4 trainings” in their career. Further, in order to measure the association of gender with the working experience, a non-significant chi-square value indicated that gender of the respondent is not associated with the years of their experience. Moreover, to investigate the association between the working experience and number of trainings, the Kendall’s Tau-b was applied because both variables were ordinal. Based on the results of the study those with more years of experience were likely to more trainings (\( r_T = 0.542, p = 0.000 \)).

These findings showed that employees who retain in the organization for longer time period, the organization frequently offer them the trainings to equip them with the required skills.
4.1 Results of Hierarchical Regression Analysis

To test hypothesis of the study, that is, to examine the effect of the training on employees’ performance and job satisfaction, Baron and Kenny (1986) method was adopted. Baron and Kenny (1986) presented a four step method to measure the mediation effect of mediator in the relationship of causal and outcome variable. The first step deals with the measuring of bivariate correlation coefficients among the variables. Therefore, bivariate correlation coefficients among the variables of the study along with their respective descriptive statistics were calculated in table 3.

Table 2. Descriptive Statistics and Correlation Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>3.7466</td>
<td>.36688</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>3.6477</td>
<td>.60030</td>
<td>.476*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Employees Performance</td>
<td>3.8253</td>
<td>.52892</td>
<td>.466*</td>
<td>.751*</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < 0.01

The means for each variable showed that overall respondents showed their affirmation regarding role of “training”, “job satisfaction” and “performance”. Further, the small values of standard deviation assured the less variation thus more consistency within the variables. Moreover, the correlation coefficient between the variable “training” and “Job satisfaction” was found significantly positive (r = 0.476, p < 0.01). in addition, “training” was also found to have significantly positive correlation with the “employee’s performance” (r = 0.466, p < 0.01). Similarly, the “Job Satisfaction” and “Employee’s Performance” were found to have significant positive correlation between them (r = 0.751, p < 0.01). Hence, the significant correlation coefficients among the variables satisfied the first step.

Though predictor (Training), mediator (job satisfaction) and outcome (employee’s performance) variables were significantly correlated, however it was not enough to justify the effect of mediator on the relationship between the predictor and outcome variable because both mediator and outcome variable are caused by predictor. Therefore, in the next step, the causal effect were measured.

In the second step, to investigate the significance of the effects between the causal variable/predictor, i.e., “training” on the outcome variable “Employee’s performance” and moreover, effect of “training” on the mediator “Job satisfaction” and lastly the effect of “job satisfaction” as predictor on the “employee’s performance”, the linear regression analysis was computed. three linear regression models measuring effects between the independent, dependent and mediated variables were run in table 4.

Table 4. Linear regression models of effect of training & job satisfaction on E. performance

<table>
<thead>
<tr>
<th>Outcome variables</th>
<th>Unstand Coefficients</th>
<th>Stand. Coeff</th>
<th>R</th>
<th>R²</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Performance</td>
<td>Model 1, Constant</td>
<td>B = 6.586</td>
<td>Error</td>
<td>.2065</td>
<td>t = 3.19</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>Model 2, Training</td>
<td>.435</td>
<td>.043</td>
<td>.572</td>
<td>.1015***</td>
</tr>
<tr>
<td>E-Performance</td>
<td>Model 3, Constant</td>
<td>10.02</td>
<td>5.82</td>
<td>1.72</td>
<td>11.41***</td>
</tr>
<tr>
<td>Job Satisf.</td>
<td></td>
<td>1.378</td>
<td>.121</td>
<td>.617</td>
<td>14.14***</td>
</tr>
<tr>
<td>E-Performance</td>
<td></td>
<td>8.475</td>
<td>1.18</td>
<td>7.20</td>
<td>.74 .549</td>
</tr>
<tr>
<td>Job Satisf.</td>
<td></td>
<td>.249</td>
<td>.015</td>
<td>.740</td>
<td>16.24***</td>
</tr>
</tbody>
</table>

For Model-1, the linear regression was applied to measure the effect of ‘Training” on the “Employee’s performance”. The ANOVA results verified the significance of the regression model-1 (F (1, 212) = 102.91, p < .001). In addition, the “R²” values showed that training explained 57.2% variation in the employee’s performance. Further, the significant regression coefficient proved the significant effect of training on the employee’s performance (b₁ = .572, p < 0.001). In model-2, the variable “Job
satisfaction” was taken as dependent variable keeping “Training” as independent variable. ANOVA results ensured the significant prediction of the model 2 (\(F (1, 212) = 130.24, p < .001\)) and regression coefficient was found significant too (\(b_2 = .617, p < 0.001\)), that is, one unit increase in training, increases 0.617 units of satisfaction in job. Moreover, \(R^2 = .381\) depicted that “Training” as predictor generates 38% of the variation in the variable “Job satisfaction.

Lastly, in the linear model-3 of predicting the effect of job satisfaction on the employee’s performance, the significant F-value ensure the existence of this model too (\(F (1, 217) = 263.79, p < .001\)). Also, the significant coefficient regression (\(b_3 = .74***\)) showed that job satisfaction significantly predicted the employee’s performance and total 54.9% of the variation was explained by the independent variable.

In the next part, the test the hypotheses of the study, hierarchal regression was run to examine the relationship between training and employee performance in the presence of job satisfaction as a mediator.

### Table 6. Hierarchical Regression of Job Satisfaction as mediator between Training & Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>A</td>
<td>(Constant)</td>
<td>6.586</td>
<td>2.065</td>
<td>3.190</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>TR</td>
<td>.435</td>
<td>.043</td>
<td>.572</td>
<td>10.145</td>
</tr>
<tr>
<td></td>
<td>(R^2)</td>
<td>.327</td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>(F)</td>
<td>102.911</td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>(\Delta R^2)</td>
<td>.327</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>(Constant)</td>
<td>4.444</td>
<td>1.663</td>
<td>2.672</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>TR</td>
<td>.140</td>
<td>.044</td>
<td>.184</td>
<td>3.215</td>
</tr>
<tr>
<td></td>
<td>JS</td>
<td>.214</td>
<td>.019</td>
<td>.628</td>
<td>10.966</td>
</tr>
<tr>
<td></td>
<td>(R^2)</td>
<td>.571</td>
<td></td>
<td></td>
<td>.619</td>
</tr>
<tr>
<td></td>
<td>(F)</td>
<td>140.530</td>
<td></td>
<td></td>
<td>.619</td>
</tr>
<tr>
<td></td>
<td>(\Delta R^2)</td>
<td>.244</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: EP

To move further, first the collinearity statistics, i.e., tolerance and VIF, were investigated to verify that there was no multicollinearity issue between the independent variables. The tolerance value is associated with each independent variable present in the model. Its value ranges from 0 to 1, the tolerance value less than 0.4 indicate an issue of multicollinearity in the data (Allison, 1990), however, some statisticians mentioned the value less than 0.2 as problematic (Weisburd & Britt, 2007). It means higher the tolerance, multicollinearity lowers. Here in this study, the collinearity tolerance value was found 0.619 (Tolerance > 0.6) for both independent variables, which ensured that high tolerance for both the “Training” and “job satisfaction”. Further, the Variance Inflation Factor (VIF) which must be less than 5 (Field, 2013), here VIF statistics for both independent variables were also found less than 5.

For the model-A with “Training” as causal variable, the ANOVA results indicated that the regression model was found significant (\(F (1, 212) = 102.911, p < .001\)). In addition, the “\(R^2\)” which explains the variation in this linear model, here for “Training” as the only predictor, it was found 0.327. It showed that training generated 32.7% of the variation in the variable “Employee’s performance”.

In the hierarchal model-B with the addition of “Job Satisfaction”, in the next step of model-A, as a causal variable, this regression model was also found significant (\(F (2, 211) = 140.530, p < .001\)). In addition, the “\(R^2\)” value was also increased to 0.571. It showed that job satisfaction when added with training generated 57.1% of the variation in the outcome variable “Employee’s performance”. This increase in the \(R^2\) values from 0.327 to 0.571 also affirmed that model has improved further.
Further, investigating the beta values as shown in table 6, it was found that training exerted a positive and significant effect on employee performance ($\beta = .572, p < .001$). hence the $H_1$ was accepted. In the last stage hierarchical analysis applied to analyze the mediating effect of job satisfaction, it was observed that the Beta ($\beta$) value indicating the effect training on employee performance ($\beta = 0.141, p < 0.01$) in the presence of job satisfaction has decreased, however, the relationship remained significant. Moreover, regression coefficient of the job satisfaction depicted a significant effect on the employee’s performance ($\beta = .628, p < .001$). These significant Beta ($\beta$) values in hierarchal regression result proved a partial mediation (Baron & Kenny, 1986), thus the $H_2$ of this study was also accepted. The indirect effect of training on the employee’s performance was measured as $\beta_1 \times \beta_2 = 0.617 \times 0.628 = 0.387$. Thus, the direct effect of training on employee’s performance was 0.184 which was also significant at $p < 0.01$ (“total effect – indirect effect”, i.e., $0.572 – 0.387 = 0.185$).

The other way to verify the mediation in the model is to measure the Sobel’s test which was found at 9.391 (S.E = .0365) significant at $p < 0.001$, which ensures the mediation of the mediator variable job satisfaction (Hayes, 2009). We may, therefore, conclude that the job satisfaction partially mediates the relationship between training and employee performance. Thus, training has a direct effect on employee performance and has indirect effect through job satisfaction.

5. Discussion
In this research two hypotheses were formulated; one was to measure the direct effect of training on job performance and the second hypothesis was to measure the effect of training on performance mediated through job satisfaction. Correlation coefficients, linear regression analyses and Hierarchical regression analysis were used to test the acceptance and rejection of hypotheses. The findings revealed that the training had a direct and significant effect on performance of the employees in a civil society organization of Pakistan, further, job satisfaction mediated significantly in this relationship. All the results of this study were aligned with the existing literature. This study affirmed that the significant direct effect of training on employee performance in CSOs, which is highlighted in previous studies of Falola (2014); Ahmad et al. (2014); Amin et al. (2013) and Bulut & Culha, (2010). Proceeding with mediation, the current research showed the significant and positive effect on job satisfaction, these results are similar to the previous researcher (Aragon & Valle, 2013; Yeh & Hong, 2012; Adesola et al., 2013). Moreover, the findings of significant effect of job satisfaction on employee performance also are in parallel with the earlier researcher (Siddique & Farooqi, 2014; Rehman et al., 2013; Rothbard et al., 2005). Lastly, the hypothesis about the mediating role of job satisfaction, it was found that job satisfaction partially mediates the relationship between training and employee performance. The results are in line with previous researches of Zumrah et al. (2013).

6. Conclusion and Recommendations
The aim of this study was to analyze the impact of training on employee performance and mediating role of job satisfaction in the civil society organization in Pakistan. The study findings revealed that training had significant influence on employee’s performance. In addition, significant mediating role of job satisfaction was also found between the relationship of training and employee performance. The results projected the need of training and job satisfaction to enhance the employee performance specially in civil society organizations. Thus, it can be concluded that the organization must develop policies to train
their human resource and facilitate them equally to get the goals of the organization comprehensively. In the light of the results and existing literature, it can be concluded that the organizations should provide opportunities of skill-based trainings on regular basis to overcome the gap between job required competencies and employee’s qualification in this rapidly changing business world. Hence, these training programs, according to the task specification, will boost the morale of the employees. Thus, Need Assessment (TNA) should be an integral part for an effective training. In Consequence, it will maintain the sense of association and belongingness of the employee with the organization through the increased job satisfaction level. Moreover, it will improve the intellectual level of the employees through conceptual development of new innovative techniques. In addition, quantitative evaluation, pre-assessment and post-assessment should be conducted to measure the understanding level of these employees. Furthermore, for effective outcomes of training, training session should be Interactive Activity Base (IAB) including answer-question session, in result, it would remove the shyness of the participants attending the training and they will learn more adequately. In nut shell, CSOs should focus the concept that how to increase the job satisfaction level of their employees by offering effective and incentive-based trainings. It may be suggested that the organizations should announce such incentives to the efficient employees for their smart performance, it will increase the retention ratio of the core employees. Consequently, this increased ratio of the core employees may be a bench mark for the better reputation and development of the civil society organizations.

References
Personality and Social Psychology, 51, 1173-1182.


Openness and Inflation Volatility: A Case Study SAARC Country

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ARTICLE DETAILS

ABSTRACT

The objective of this research paper is to check the impact of openness on inflation volatility. The time period ranges from 1986-2014 by utilizing Panel data for SAARC countries. Four proxy variables are used to calculate openness by using Generalized Method of Moment (GMM) and Impulse Response for the existence of short run and long run relationship. GMM results indicates that the relation depend on the proxy variable being used in the model. Export to GDP and KOF index shows negative impact on inflation volatility while Trade to GDP ratio has significant positive impact on inflation volatility. The empirical study suggests that exports should be encouraged as it resulted in decreasing rate of inflation as along with imports inflation is also imported in terms of commodity price.

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1. Introduction

The rapid increase in world economic integration in the recent decades initiated arguments on the impact of trade openness on inflation volatility. One of the propositions prevailing is that greater openness tends to decline inflation rate. Economic liberalization and openness raised in 1990’s, then countries started to integrate in order to increase their respective trade (Mukhtar 2008). Institutions like the World Bank, International Monetary Fund (IMF), and the Organization of Economic Co-operation and Development (OECD) claim that openness generates positive effects on economic growth which stabilizes inflation volatility (Jain and Singh 2009).

The decade of 1990’s is remembered as era in which inflation around the world came under control. According to IMF, average inflation in industrialized countries comes down to 0.8% at the end of 1999 which was previously 4.9% between 1982 and 1991. Also 1990’s is considered as globalization decade, where trade of goods as percentage of GDP raises to 28.3% which was 21.2% in 1988 (Alfaro, 2005).
In 1990’s, countries which were highly open to international trade, particularly small countries adopted the policy of inflation targeting which resulted in a major decline in inflation rates for both developed and developing countries (Thomas 2012).

Formation of trading blocks and regional trade agreements (RTA’S) is an alternative best option. Countries move towards the creation of regional trade agreements. Moreover, another reason for economic integration is economies of scale because small nations cannot utilize their production capacity due to smaller market domestically. To achieve these advantages, South Asian Association for Regional Cooperation (SAARC) which includes eight countries was formed in December, 1985. However, due to cautious behavior of member nations the process of integration was very slow (Bhattarai 2014). Increasing step towards integration, SAARC countries first signed South Asian Preferential Trading Agreement (SAPTA) in April 1993 under which trade concession is allotted to member nation for specific list of goods. Secondly they signed South Asian Free Trade Area (SAFTA) in 2004 with objective to achieve free trade area by end of 2063 (Rizwan-ul-Hassan 2015). The objective of the study is to analyze the effects of openness on inflation volatility by utilizing cross-sectional correlation and temporal variation in the data. Also to check the potential endogeneity of openness by using lagged values of openness and population size as instrument in estimating dynamic panel model.

2. Literature Review
Romer (1991) put forward the relation between openness and inflation volatility. His explanation of the relation was based on unanticipated monetary policy. He concluded that unanticipated monetary policy lead to high inflation rate when there is imperfect competition and excessive burden of taxation. The result will be sub optimal level of output if monetary policy is used to effect output because policy will be to create surprise inflation but wage setters expectation and price policy cannot be the same which results in high inflation and natural rate of output (Kyland and Prescott 1977). If a country is keen on adopting unanticipated monetary policy, it will expand less and hence inflation will be on average low because unanticipated monetary policy causes real exchange rate depreciation which will harm more if the degree of openness is high.

Lane (1997) use panel data estimation to investigate the negative effect of openness on inflation volatility. He proposes that the negative relation can be stronger with the inclusion of time specific effects along with central bank independency. By giving conventional explanation to the results, he proposed that there is less benefit attached to surprise inflation in open economies because the terms of trade deterioration is limited. As only countries which are big enough to affect international market prices have more flexible exchange terms. Terra (1998) questioned Romer’s empirical findings and estimates her own regression on sample of 20 countries with dividing them into 4 groups according to indebtness level. The countries were further divided into severely, moderately and less indebted countries with inclusion of pre-debt crisis and debt crisis. The finding shows that for severely indebted countries in Latin America there exist negative relation between openness and inflation but for moderately and less indebted countries the negative relation does not hold. Also during 1970's and early 1980's, when countries were decreasing their debt burden and do not face any issue relating to balance of payment the negative link between inflation and openness comes out to be weak but the negative relation become strong during debt.

Romer (1998) replies back to Terra’s (1998) articles to prove his points. His study showed that severely indebted countries and moderately indebted countries both show negative relationship of openness and inflation and only for high income country the relation does not exist. His study also pointed that during borrowing period a country can run in trade deficit rather than surplus. Less open economy has more appreciated currency value as share of trade surplus and hence lower will be the budgetary pressure and low inflation. The relationship between openness and inflation volatility is even negative when countries are borrowing and more negative when they are indebted. Also his study shows that there is no evidence given by Terra (1998) those countries which are highly indebted shows larger trade surpluses.
Ashra (2002) gives a different approach on the relationship between openness and Inflation by defining openness as total trade/GDP ratio, imports/GDP ratio and exports/GDP ratio, in different panel models, for the 15 countries. Correlation outputs shows that impact of the openness on inflation is found diverse when trade/GDP ratio is taken as the proxy variable of openness. Hence the effect of openness on inflation volatility depends on the proxy variable being used for openness and the variables exports/GDP and imports/GDP shows significant affects on inflation in opposite directions.

Jin (2006) examined the relation between openness, inflation and growth for South Korea by using autoregressive model and impulse response function. The results of impulse response function indicate significant response of openness on inflation and output growth. Further results show negative short run effect of openness on inflation and growth. The negative relation exists because of shrinkage of domestic investment when the competition increases in the international market and the effects will be large if in any case the inflows increases. The domestic economy will suffer when the financial market are not strong to compete in international market as happened in Korean financial crises (1997). Evans (2012) uses a two country OIG (overlapping generations) model in which each country produces each good in one period which last for only two periods. The estimated results shows that their exist a positive relation between Openness and inflation because of the fact that international consumer shows some degree of inelasticity in their preferences towards home products. This increases the prices of exports while the import prices remain same. The monetary authority take the decisions of applying consumption tax costs of inflation to balances the increases money growth that resulted from open economy.

Auer and Mehrotra (2014) worked on globalization and its impact on cross border prices for Asia and Pacific region. The increasing integration led to higher movement of prices internationally. For Asia and Pacific region the trade affects the domestic prices of trading countries because they are exposed to cross border demand and supply shocks and volatility of inflation rate increases domestically. Darici (2016) checked the effect of openness on inflation by taking cross sectional time series data for selected 11 developing countries from 1980-2006 and using fixed and random effect model. Estimation results show that exchange rate, openness to foreign trade and foreign direct investment variables have statistically significant and positive effects on inflation. Further finding shows that increase in per capita GDP, is also statistically significant and has positive effect on inflation.

3. Theoretical Framework
In this section the possible channel is trace out through which openness link with inflation volatility. The possible channels are:

Openness can increase instability if trade is majorly based on primary commodities as in case of many developing countries, openness causes greater exposure to most volatile international market. Moreover openness increases vulnerability to exchange rate fluctuations; however this will mainly depend on exchange rate regime. On the other hand, there are several linkages through which openness can reduces inflation volatility. Firstly, openness can affect inflation volatility through structure of consumption. When there is increase in income, it shifts the consumption level from low value added agriculture products towards manufactured goods. Developing countries usually lack capacity in supply of some consumer goods but to re-structure consumption in favor of high value added product they can compensate by importing these goods. This degree of substitution in consumption will depend on openness to trade. Also the terms of trade volatility for manufactured goods are 1/3rd than aggregate terms of trade volatility (Baxter and Koupalitsas (2000). The change in structure of consumption will results in stabilize the consumer price volatility through flexibility in the supply resulted from trade. Openness resulted in larger reduction of inflation volatility through improved market access or tariff reduction and rapid exposure to international market.
4. Econometric Model
The following model is used to measure inflation volatility.

\[ VINF = \ln[1 + sd(INF)] \]

Where

VINF = Inflation volatility
sd = Standard deviation
Inf = Inflation measure as growth in the price index over last year taken in decimal form

Log transformation is used to press down very large values which results in hyperinflation time period.

Log of one plus standard deviation of inflation is used to avoid the mention situation.

To estimate the effect of openness on inflation volatility we use the following model (Bowdler and Malik 2017). The equation is taken in log form to make it normally distributed.

\[ VINF_{it} = \alpha + \beta VINF_{it-1} + \gamma OPEN_{it} + X_{it} + \eta_i + \varepsilon_{it} \quad (2) \]

To calculate openness 4 proxy variables are taken which include trade to GDP ratio, Export to GDP ratio, Import to GDP ratio and KOF index of globalization one by one in the above equation

Where

OPEN = Natural log of import relative to GDP
X_{it} = Set of variables which include Population size, Exchange rate regime, External Debt to GDP ratio, Government spending, Money supply, Lag Population size and lag Openness
i = it denotes individual country
t = time period
\( \eta_i \) = country fixed effect
\( \varepsilon_{it} \) = error term

The lagged variable of inflation volatility in equation is used to control persistence in inflation volatility (act as a proxy also for variable effecting volatility at this stage).

To exclude the time invariant fixed effects take first difference of equation (2) and obtain

\[ \Delta VINF_{it} = \beta \Delta VINF_{it-1} + \gamma \Delta OPEN_{it} + \Delta X_{it} + \Delta \varepsilon_{it} \quad (3) \]

By applying least square to equation 3 can cause problems. The error term is co-related with the lagged dependent variable (VINFit-1) as both include \( \varepsilon_{it-1} \). Also reverse causality can occur if in any case inflation act as a hindrance to trade than OPEN can endogenously determined. The impact of openness on inflation in such case is enlarged than normal.

To abolish the problem of reverse causality and error term correlation with lagged dependent variable Arellano and Bond (1991) suggested a Generalized Method of Moment technique. But the problem with GMM method is that it can lead to finite sample biases because lagged level of variables can be poor instruments for equation 2 in presence of high time series persistence and short panels.

An alternative approach suggested by Arellano and Bover (1995) is System-GMM estimator which uses lagged differences of each variable an instrument in estimating the relation in equation 2 and combine this with Differenced GMM estimates of equation 3. External instrument i-e, lagged values of log population size is used in implementing System GMM estimator because past population size helps to predict the evolution in openness and hence efficiency of GMM estimator increases. The period of analysis is from 1990 to 2018.

5. Results
To check the stationarity of data Levin-Lin-Chu unit root test is applied. The results of Levin-Lin-Chu test are given in table 1:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>1st difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>0.4969</td>
<td>0.000</td>
</tr>
<tr>
<td>lagIV</td>
<td>0.4969</td>
<td>0.000</td>
</tr>
<tr>
<td>IEGCR</td>
<td>0.9454</td>
<td>0.000</td>
</tr>
<tr>
<td>LagIEGCR</td>
<td>0.9754</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Null hypothesis $H_0$: $\rho=0$  
Alternative hypothesis $H_1$: $\rho<0$.  
IV= inflation volatility. POP=Population size  
MS=Money supply  
Lag IV= lag inflation volatility  
GSCR=Government size  
EDGCR=External debt  
IEGCR=Trade/GDP ratio. Lag IEGCR=Trade/GDP ratio.  
ERR=Exchange Rate Regime. Lag POP=lag population size.  
IGCR=Import/GDP ratio. LagIGCR=Import/GDP ratio.  
EGCR=Export/GDP ratio. Lag EGCR=Export/GDP ratio.

In table 2 the basic empirical results are presented. Each model is calculated with different proxy of Openness which includes trade/Gdp, Import/GDP, Export/GDP and KOF/GDP ratio as proxy for Openness respectively. The estimated results are contradicted when the proxy variable is change. Column one shows estimation for model one. The R-squared is 0.75. Trade/GDP ratio is taken as proxy for Openness. The coefficient of trade/GDP is positive and significant. This shows that increase in Openness results in .25% increase in inflation volatility of a country. The reason is that there exist ‘beggar-thy neighbor policy’ in economic theory according to which country can share their cost of inflation with the trading countries and at the same time the benefit remain with the creating country. Similarly inflation is imported in the form of prices of raw material. Lag inflation volatility shows significant positive impact on inflation volatility, because past inflation inertia affects current inflation. Ajaz, Nain and Kamaiah (2016) result supported the positive impact of lagged inflation volatility on current inflation. Population size has negative and significant relation with inflation volatility. 

Column 2 shows import to GDP ratio as proxy R-squared value of 0.18% which shows the insignificance of the model. Import to GDP ratio has positive but insignificant impact of Openness on Inflation Volatility.

Column 3 shows model 3 with R-squared value (0.79). Model 3 includes Export/GDP ratio as a proxy for Openness that increase in Openness results in a decreasing Inflation volatility with a smaller impact. Gosh (2014) results are supporting the negative results. External debt to GDP ratio has significant positive impact on inflation volatility.

Column 4 shows significant negative effect of KOF/GDP impact on Inflation Volatility. The finding shows that an increase in KOF index will results in a decrease of Inflation volatility. KOF index include economic, political and social globalization. Samimi et al (2012) also finds significant negative relation between KOF index and Inflation volatility. Money supply has negative and significant effect on
inflation volatility which contradicted the literature. Population has insignificantly positive effect on inflation volatility while lagged population also shows insignificantly positive relation. Government spending shows significant positive impact on inflation volatility.

Table 2: Dependent Variable: Inflation Volatility

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>MODEL 1 Trade/Gdp ratio</th>
<th>MODEL 2 Import/Gdp ratio</th>
<th>MODEL 3 Export/Gdp ratio</th>
<th>MODEL 4 KOF/Gdp ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness</td>
<td>0.257024 (0.0185)**</td>
<td>0.164827 (0.2950)</td>
<td>-0.028421 (0.0896)*</td>
<td>-1.424565 (0.0435)**</td>
</tr>
<tr>
<td>Lag Inflation Volatility</td>
<td>0.667062 (0.0000)**</td>
<td>-0.020067 (0.8956)</td>
<td>-0.022262 (0.8847)</td>
<td>-0.008615 (0.9569)</td>
</tr>
<tr>
<td>Population Size</td>
<td>-1.4925 (0.0234)**</td>
<td>0.92506 (0.7498)</td>
<td>-1.8923 (0.0377)**</td>
<td>0.49193 (0.8812)</td>
</tr>
<tr>
<td>Lag Population Size</td>
<td>1.43958 (0.6847)</td>
<td>0.75510 (0.7883)</td>
<td>1.57666 (0.5917)</td>
<td>0.61904 (0.8500)</td>
</tr>
<tr>
<td>Money Supply</td>
<td>-0.593721 (0.0000)**</td>
<td>0.032765 (0.0963)*</td>
<td>0.058698 (0.0216)*</td>
<td>-0.152677 (0.0094)*</td>
</tr>
<tr>
<td>Government Spending</td>
<td>0.254372 (0.0003)**</td>
<td>-0.138624 (0.4398)</td>
<td>(-0.114115) (0.0438)**</td>
<td>0.201570 (0.0153)**</td>
</tr>
<tr>
<td>External Debt to GDP Ratio</td>
<td>- -</td>
<td>-</td>
<td>0.216171 (0.0194)</td>
<td>0.209769 (0.3731)</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.757956</td>
<td>0.189731</td>
<td>0.796194</td>
<td>0.741503</td>
</tr>
</tbody>
</table>

Figures in brackets shows level of significance Note: * 10% level of significance ** 5% level of significance ***1% significance

The lag selection is based on Akaike information criterion. According to Akaike information criterion for all models the AIC shows 2 to be maximum lag for estimation. The impact of one S.D shock of inflation volatility to itself is positive. The impact of one S.D shock to IEGCR ratio leads to negative response in inflation volatility. Response of inflation volatility to MS is positive. The impact of impact of one S.D shock to POP leads to no impact on inflation volatility. Response of inflation volatility to ERR is negative. The impact of one S.D shock of GS to inflation volatility is small but positive. The response of IV on EDGCR is positive.
IV= inflation volatility level POP=Population size MS=Money supply LagIV=lag inflation volatility GSCR=Government size EDGCR=External debt IEGCR=Trade/GDP ratio ERR=Exchange Rate Regime

6. Conclusions
The study shows negative relation between inflation and openness when export is taken as proxy. The reason behind the relationship is that when we export goods, inflation is exported to imported country. Therefore the exported country does not get affected. When KOF/GDP ratio is taken the relation is negative. The reason is KOF index does not include only trade but along with include technological exchange, cultural exchange and more stable cordial relations among the trading countries. When import/ GDP and Trade/GDP ratio is taken as proxy than the relation is positive. The reason is with imports a country not only imports products but along with also import the prevailing inflation situation from the exported countries. Impulse Response function gives the following results. There exists a long run relationship between openness and inflation volatility. The effect of one standard deviation shock to ERR on inflation volatility appears in long run but no short run relation exists. There exist long run relationship between external debt and inflation volatility. Money supply has long run relation with inflation volatility.

References


The Determinants of Price Change: Evidence from a Survey of Firms

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ARTICLE DETAILS

ABSTRACT

Price stability are important for macroeconomic stability, especially for the economies, which are facing macroeconomic instability. Contractionary monetary policy can play an important role in minimizing the frequency of price change, so for effective monetary policy, it is necessary to identify the determinants of price setting behaviour. The objective of the study is to determine the patterns of price setting of firms and responses of firms to economic shocks, i.e. changes in demand and supply side factors, the role of firm characteristics, institutional and other factors in determining the channel of adjustment after these shocks. The data is collected through stratified random sampling from 342 firms, located in four Industrial estates of Khyber Pakhtunkhwa. Price setting behavior is measured through importance of demand and cost shocks for price change. To estimate the effects of determinants of price change, models are estimated through logistic technique. Firms’ likelihood of price increases higher than that to price decrease in response to both demand and supply shocks. Furthermore, supply-side factors lead to higher frequency of price change than demand-side factors do. The cost of raw material and cost of energy are the most important causes of price change, both for the price increase and decrease. Demand and cost shocks are important determinants of price change for imperfectly competitive firms, backward-looking firms, firms run by managers having more information about economic conditions, while credibility of central bank is important determinant of price change in case of demand shocks only. Size of firms and information set regarding expected inflation do not have any effect. For effective monetary policy of Pakistan, credibility of central bank has to be established to stabilize prices and pre-emptive measures should be taken on the part of central bank to counter supply shocks.

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1. Introduction
For appropriate economic policy, especially for monetary policy, there is a need for deeper understanding of the characteristics and factors which affect the dynamics of prices. Nominal rigidities play a vital role in the transmission of shocks. Price rigidities affect the shocks intensities. The state of flexibility of price is important for the countries that intervene in the foreign exchange market. Price setting become important for the transmission of shocks when nominal exchange rate is not allowed to adjust. Moreover, it is the money wage rigidity, which ensures the real effect of monetary policy. Despite the significance of price rigidities, there is still no consensus on the theoretical mechanism of underlying facts of these rigidities and empirical analysis of the degree of these nominal rigidities.

What are the causes of variations in the price setting frequency at the firm level? How firms change their prices? Why some of the firms change their prices more often than the other firms? Literature has shown some of the factors which can trigger price. These factors are common such as level of competition, long-term contract with employees and other raw material suppliers, size of the firm and many other different actions, which are also known as pricing triggers (Blaudow and Burg, 2018; and Nakamura, Emi and Jon Steinsson, 2008). The demand and supply shocks may be small or large; the effect may be instantaneous or slow; it may vary from country to country and depends on the situation. These variations should be incorporated, for effective monetary policy, e.g. if the price rigidity is because of menu cost then the price setting mechanism should be designed in such a way that price change becomes less costly (Ball and Mankiw, 1994). Blinder (1991) is the pioneer study, who collected data through survey and tested macroeconomic theories of price rigidities, which covered the weakness in the studies done at the aggregate level, because aggregate data fail to give proper justification of price stickiness. This study opens another direction for research to study the nominal rigidities at the firm level using micro data collected through the survey (Taylor, 1999; and Hall and Yates, 1998) and find the same result as Blinder (1991), but with some additional facts.

In the case of Pakistan, Sohail and Fatima, (2018); Chaudary et al., (2011; 2016) and Malik et al., (2008) have studied the price-setting behaviour of firms using survey based data but these studies have only focused on the pricing rule, frequency to adjust prices, magnitude of price change, and different types of information about price setting and have ignored the response of firms to change in prices to different shocks and the role of the firm characteristics in price setting. Why is the issue of price setting behaviour important? Why study how price are determined? Why study that the firm does not respond at a regular frequency to different demand and supply shocks? Answering these questions through understanding the price setting behaviour is significant for planning and implementation of monetary policy. The objective of the study is to analyze the determinants of price change of firms located in Industrial estates of Khyber Pakhtunkhwa, using survey based data and responses of firms to economic shocks, i.e. changes in demand and supply side factors, the role of firm characteristics, institutional and other factors in determining the channel of adjustment after these shocks and further more to examine that upward response of price is more significant than downward response or not. Rest of the study is organized as: in section 2 theoretical background discussed, section 3 explain the econometric methodology and construction of variables, section 4 discuss data collection procedure, section 5 consists of results and analysis and section 6 is about conclusion and recommendation.

2. Theoretical Framework
Taylor (1999) developed staggered price contract model, which has the following features: this model explains some critical properties of price setting in the real world. Equations are the same both for price setting. First, consider the case of price setting. This model assumes that price is set for fixed, i.e. N periods, which is greater than 1 (N>1). In this contract period, the firm does not change the price. In each period 1/N of the total firms change their prices. In any period, the price will be the average of prices set in N periods; in the current period and the last N-1 period. In setting price, the firm
incorporates all past and future information of price decisions of other firms. It means the price setting behaviour is both backward-looking and forward look.

For simplicity let’s consider that price is set for two periods, i.e. N = 2, where “Pt” is the price in a time “t”, and “Zt” is the contract price depend on the price in a time “t”, “t-1” and real aggregate output (Yt).

So, the price setting equations of the model are:

\[ \text{Log}(P_t) = 0.5 \{ \text{Log}(Z_t) + \text{Log}(Z_{t-1}) \} \]  

(1)

\[ \text{Log}(Z_t) = 0.5 \{ \text{Log}(P_t) + E_t(\text{Log}(P_{t+1})) \} + \gamma \text{Log}(Y_t) + \epsilon_t \{ \text{Log}(Y_{t+1}) \} + \epsilon_t \]  

(2)

According to equation (1) current price is the average of the contract prices in time “t” and “t-1” and according to equation (2), contract prices in the two periods depend on prices and aggregate demand prevailing in the contract periods.

The model assumes a simple closed economy, so the money demand function is given as:

\[ \log(M_t) = \log(P_t) + \log(Y_t) \]  

(3)

By substituting equation (4) in equation (2) i.e. contract prices and then put equation (1) that current price change. For the demand significance of demand and cost factors that might cause to raise or lower the price of main products, whenever price change is required. It only explains the determinant of price change. For the demand shocks the variables taken are inflation, change in the price of the competitors, seasonal factors, changes

3. Econometric Model

The empirical model for price setting behaviour given in equation (1) is constructed on the basis of previous literature, objective of the study and theoretical framework discussed.

\[ \text{Price change} = \beta_0 + \beta_1\text{mktstructure}_i + \beta_2\text{customertype}_i + \beta_3\text{backward&forward}_i + \beta_4\text{priceadjustment}_i + \beta_5\text{Credibility}_i + \beta_6\text{Economicliteracy}_i + +\beta_7\text{informationset}_i + \beta_8\text{firmsize}_i + \mu_i \]  

(1)

Equation (1) consists of the determinants of price setting. The model is estimated through binary probit/logistic technique; the selection of technique depend on the nature of dependent variable and diagnostic tests. The construction of dependent and independent variables is discussed below.

Price setting is the dependent variable in equation (1), which is measured through price change. The price change is proxied through the importance of demand and cost shocks factors in case of the price increase/decrease, it does not explain the behaviour of price rigidity or flexibility, it indicates the significance of demand and cost factors that might cause to raise or lower the price of main products, whenever price change is required. It only explains the determinant of price change. For the demand shocks the variables taken are inflation, change in the price of the competitors, seasonal factors, changes
in the tax rate, changes in the demand of your product, change in the level of competition and change in the exchange rate. For the cost shocks the variables taken are inflation, change in labour cost, change in financial cost, change in the cost of raw materials, change in the cost of energy, seasonal factors, government regulations and change in the exchange rate. The firms were asked to indicate the significance of the above factors that might cause to raise/lower the price of firm’s product. After the collection of data, average of all the factors mentioned above of the cost shocks and demand shocks are taken. In this way four series of price change are constructed, which are proxied through the significance of demand and cost factors to change price. Each proxy of price change is regressed on a set of explanatory variables. Now, these series are in continuous form because of taking the average, but the value of variables in all cases is from 1 to 4. The study can apply ordinary least square because the dependent variable is continuous form, but it will not achieve the objective of the study. So, the four series are converted into four dummies, i.e. categorical form, by rounding the values to nearest number in given ranking, i.e. 1 to 4. Total four variables are taken to measure price setting behaviour, price change in case of demand and cost shocks in case of price increase and decrease, which are in categorical form.

Market structure is measure through degree of monopoly power to set price, the manager of the firms are asked that how they calculate the price of their product? i.e. a mark-up is applied to the unit variable costs, price is set at the level prevailing in the market, the price of main competitors is used as a reference, price is set jointly with other competitive firms, or any other option and all options are ranked from 1 to 5 respectively. To capture the type of customers, the firms are asked about the type of customers, i.e. whether they are regular, or occasional or of both type. To construct variable, each category is assigned specific number from 1 to 3. To capture Backward-looking and forward-looking behaviour, the firms are that their price decisions are based on the past information, current information, forecast about future or combination of all. All categories are assigned numbers from 1 to 4 to construct categorical variable.

To measure Price Adjustment Process, the firms are asked that suppose their current price is X, after computation, they find that it should be increased (decreased). Then in this case, they do it in one shot, gradually or it depends on the situation. Furthermore, the response of the firm is explored with respect to the different percentage change in price, i.e. less than 5%, from 6% to 10% and more than 10%. In all cases categories are same and are assigned numbers from 1 to 3. To measure the credibility of the central bank policies in Pakistan, the firms are asked that in making decisions (e.g. investment, price), do they use the forecasts (e.g. about output growth and inflation) released by the State Bank of Pakistan? If the answer is yes then it considers State Bank of Pakistan credible, while the other response- no means not-credible: it means firms do not consider the reports of State Bank of Pakistan significant or trust worth. To construct binary variable, categories are assigned number 0 and 1, i.e. yes = 1, no = 0.

To capture the economic literacy of firm managers, the firms are asked about how learn about current economic conditions and economic policies? i.e. from reports of State Bank of Pakistan, Ministry of Finance reports newspapers, electronic media and through discussion with personal relations/social capital. All these responses are in binary form, i.e. yes =1 and no = 0. To measure economic literacy, the values of all responses are added for each firm. So higher the value of a firm in this question, more will be the economic literacy. To determine the set of information used in forecasting the inflation, the firms were asked about different macroeconomic and policy variables, which can be used of for expectation. All these options are assigned values 1 or 0, to measure the set of information for forecasting all these values are added. The firm size is measured by total number of workers.

4. Sample

For this, a survey is conducted in the fiscal year 2017 from four major industrial estates of Khyber Pakhtunkhwa, i.e. Hayatabad Industrial Estate, Nowshera Industrial Estate, Gadoon Industrial Estate and
Hattar Industrial Estate. A sample of 342 firms is selected from the filtered population through random sampling, and data is collected through direct face to face interview from the managers of the firms. Blinder et al. (1998) methodology is followed to design questionnaire for the study. It consists of five sections: section A on general information of firms; section B on Price setting; section C on determinants of price change; and section D on awareness of Central bank working.

5. Results
5.1. Causes of Price Change
This section explains the significance of various factors that might cause the firm to raise or lower the price of the main product. To find the determinants of price change, the firms are asked to rank the following from unimportant to very important, i.e. “Unimportant = 1”, “less important = 2”, “important = 3” and “very important = 4”. In table 1 the values show average response of the importance of demand and cost shocks factors in case of the price increase/decrease, it indicates the significance of demand and cost factors that might cause to raise or lower the price of main products, whenever price change is required. If mean value is greater than 2, then the shock is important cause of price change, otherwise no.

According to the table 1, the cost of raw material and cost of energy are the most important determinants of price change, both for the price increase and decrease. According to table 1 the mean value of all variables for price increase is greater than the mean value in case of price decrease, it means firms give more important to demand and supply shocks in case of price increases than the decrease in price. The mean values of all variables of demand and supply shocks are greater than two in case of price increase; it shows that for the firms all mentioned factors in the table 1 are important determinants for price increase. While in case of price decrease, the mean value of most variables is less than two, so it can be inferred for price decrease; factors given in the table 1 are not important determinants of price decrease. Furthermore, the table 1 shows that overall for both price increase and decrease the supply side factors are more important determinants than demand-side factors because the mean value of supply-side factors are greater than the mean value of demand-side factors. Overall all factors are significant at 1% significance level.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Price Increase</th>
<th>Price Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Inflation</td>
<td>96</td>
<td>54</td>
</tr>
<tr>
<td>Labor Cost</td>
<td>56</td>
<td>90</td>
</tr>
<tr>
<td>Financial Cost</td>
<td>82</td>
<td>110</td>
</tr>
<tr>
<td>Cost of Raw Materials</td>
<td>16</td>
<td>42</td>
</tr>
<tr>
<td>Cost of Energy</td>
<td>34</td>
<td>62</td>
</tr>
<tr>
<td>Price of the Competitors</td>
<td>72</td>
<td>66</td>
</tr>
<tr>
<td>Seasonal Factors</td>
<td>148</td>
<td>78</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>52</td>
<td>84</td>
</tr>
<tr>
<td>Government Regulation</td>
<td>66</td>
<td>78</td>
</tr>
<tr>
<td>Demand for your Product</td>
<td>54</td>
<td>78</td>
</tr>
<tr>
<td>Level of Competition</td>
<td>84</td>
<td>74</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>76</td>
<td>60</td>
</tr>
</tbody>
</table>

1=Unimportant; 2=less important; 3=Important and 4=Very Important. *** means 1% significance level. Mean values show the average of importance of shocks in price change, if mean value is greater than 2, then the factor is important cause of price change, otherwise no.

5.2 Determinants of Price Change
This section analyzed the determinants of price change. As discussed in the construction of variables, in this section, the price change is proxied through the importance of demand and cost shocks factors in case of the price increase/decrease, it does not explain the behaviour of price rigidity or flexibility, it indicates the significance of demand and cost factors that might cause to raise or lower the price of main products.
products, whenever price change is required. It only explains the determinant of price change. For the demand shocks the variables taken are inflation, change in the price of the competitors, seasonal factors, changes in the tax rate, changes in the demand of your product, change in the level of competition and change in the exchange rate. For the cost shocks the variables taken are inflation, change in labour cost, change in financial cost, change in the cost of raw materials, change in the cost of energy, seasonal factors, government regulations and change in the exchange rate. The firms were asked to indicate the significance of the above factors that might cause to raise/lower the price of firm’s product. Average of factors of the cost shocks and demand shocks are taken and are converted into categorical form, by rounding the values to nearest number in given ranking, i.e. 1 to 4. In this way two series of price change are constructed, which are proxied through the significance of demand and cost factors to change price. Each proxy of price change is regressed on a set of explanatory variables. For simplicity table only provide coefficients or marginal effects, probability and standard errors of variables. The diagnostic tests for all models are given in appendix.

In this section, price change is proxied through the importance of demand and cost shocks variables in price change. Table 2 shows how price change responds to a firm's characteristics and other variables. The significance to demand shocks in price change is measured through four categories, i.e. unimportant = 1, less important = 2, important = 3 and very important = 4. Then for analysis, these categories are merged into two, i.e. less-important = 0 and important = 1, because of unexpected singularities in the Hessian matrix are encountered. Which indicates that either some predictor variables should be excluded, or some categories should be merged? The reference category is less-important = 0 in table 2.

According to results in table 2, if firms having imperfect competitive nature (i.e. competition, oligopoly and monopoly) instead of perfect competitive then the odd of demand and cost shocks being important for price change are more than the odd of demand and cost shocks being unimportant, because the odd values is greater than one and coefficients are positive at 1% significance level in case of oligopoly and monopoly. It implies that if a firm set price according to mark-up pricing policy or jointly set the price with other competitive firms then there is more chance that firm will change price because of demand and cost shocks. It means for imperfect competitive firms (i.e. oligopoly and monopoly), the price change due to demand and cost shocks is important because they have the monopoly power and can increase the price according to internal policies of the firm. While perfect competitive firms depend on the market conditions and are price taker. It means whenever firm change price, it is found that market structure is the important determinants of price change in case of demand and cost shocks. The result is in line with Nakamura et al., (2011); and Kaplan and Menzio, (2015). According to previous literature, as the market share decrease, the chance of firm to increase price will increase due to demand shocks, if firms want to change price. The number of rival firms is the important determinant of price-setting, the monopoly power to set price will increase, if the number of competing firms are less.

According to results in table 2, if a firm has regular customers instead of occasional customers then odd of demand and cost shocks being important for price change are less than the odd of demand and cost shocks being unimportant in case of price increase, because the odd value is less than 1 at 1% and 10% significance level. It implies that if firm have regular customers, then there is a less chance that demand and cost shocks become important for price change. In other words, if the proportion of regular customer is greater than occasional customers than the probability of price change because of demand and cost shocks will decrease. It is because to make the regular customers more loyal with the firms and to maintain the market share, the chances of firms to increase price due to shocks in the economy is high in case of the occasional customer then regular customers (Baye and Morgan, 2009). According to Morgan et al. (2006) demand and cost shocks are important determinants of price change in case of occasional customers. According to the Esteves (2010), if the percentage of regular customers is more than the occasional customers, then the response of firms to price change because of demand and cost shocks will be low. It may because of the implicit and explicit contract with the regular customers, while in case the firm of occasional customers, the bond between customers and firms is not strong.
According to the table 2, if firm pricing decisions are based on current information instead of past information then odd of demand and cost shocks being important for price change is less than the odd of demand and cost shocks being unimportant respectively, because the odd values are less than one and the sign of coefficients are negative at 5% significance level, while the probability of forecast about the future is insignificant. It implies that firm using current information instead of past information then there is less chance that demand and cost shock in case of price increase becomes important. It means for backward-looking firms, demand and cost shocks are the important determinant of price change, because the firm gives more weight to past information and experience, so the tendency of the firm to choose sub-optimal price will be high because of incomplete information, that why s the firm will change the price because of unexpected economic shock (Steinsson, 2003). While in case of forward-looking behaviour, demand and cost shocks are not important determinants of price change for the firms, because firms used all available information and will anticipate expected shocks, while setting the price of its main product, that why s the price of the firms will be not vulnerable to economic shocks, e.g. demand and cost shocks (Andrade and Le Bihan, 2013). It means backward-looking behaviour (i.e. past information) and forward-looking behaviour (i.e. forecast about future) has important implication for price-setting. According to Reis, (2009), the set of information about price decision minimize the behaviour of the firm to change the price because of shocks.

According to results in table 2, if the firm increase the price according to the situation instead of one shot, then the odd of demand shocks being important for price change is higher than the odd of demand shocks being unimportant in case of price increase, because the value of odd is greater than one and sign of coefficients are positive at 1% significance level, however the probability of price adjustment in case of cost shocks is insignificant. It implies that if the firm adjusts price (i.e. price increase) according to the situation, then the chance of demand shocks become important will increase. It is in line with the previous literature (Muller and Ray, 2007).

According to the table 2 if firms consider central bank credible instead of non-credible, then the odd of demands and cost shocks being important for price change is higher than the odd of demand and cost shocks being unimportant, because the odd values are greater than 1 and the sign of the coefficients are positive at 5% significance level. It means firm who accept the credibility of the central bank; then there is more chance that demand, and cost shocks become important. It means credibility of central bank is important determinant of price change in case of demand shocks, while in case of cost shocks it does not play any role in price change. Because according to Blinder, (2000) demand shocks are related to central banks and monetary policy is also demand side policy, that why s firms who consider central credible, for them demands shocks are important determinants of price change, while cost shocks are mostly not irrelevant to central banks, that why probability is insignificant.

According to results in table 2, if the firm is economic literate instead of no economic literacy, then the odds of demand and cost shocks being important for price change is more than the odd of demand and cost shocks being unimportant, because the odd values are greater than one and sign of coefficients are positive at 5% significance level. Which implies if a firm has more information about economic literacy, then demand and cost shocks in case of price increase are important determinants of price change. It means as the economic literacy increases, the firm capability to anticipate the economic shocks will increase. Economic literacy can be important determinants of price change; depends on how much firm trust in the economic policy and institution (Steinsson, 2003).

According to results in table 5.2, as the size of firms’ increases, then the odds of cost shocks being important for price change is less than the odd of cost shocks being unimportant, because the odd values are less than one and sign of coefficients are positive at 5% significance level. The price change in case of demand shocks is independent of the size of firms because the odd values are almost equal to 1 and insignificant. It means as the size of firms increases (decreases) does not affect the price change due to demand shocks. According to previous studies, for large firms, demand and cost shocks are the
important determinants of price change, because they can easily adjust it, may because of their market share, while for small firms these demand and cost shocks are not significant factors of price change, may because of competition (Jonker, Folkertsma and Blijenberg, 2004).

According to table 2, information set regarding expected inflation is not important determinants of price change in case of demand and cost shocks in case of price increase because the probability is insignificant. Price change due to demand and cost shocks does not depend on information set, because information set, which at best can lead to accuracy of predication. But accuracy does not mean increase in expected inflation; it can be other way round. Better forecast also means lows expected inflation, if inflation is going down. It is in line with the previous literature. Lach and Tsiddon (1992) show that the set of information about expected inflation is positively associated with price flexibility but can be the significant factor of price change.

Table: 3 Determinants of Price change

<table>
<thead>
<tr>
<th>Variables</th>
<th>Demand Shock (Price Increase)</th>
<th>Cost Shocks (Price Increase)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>S.E.</td>
</tr>
<tr>
<td>Constant</td>
<td>-.85</td>
<td>1.1</td>
</tr>
<tr>
<td>Market Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
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<td>.00</td>
</tr>
<tr>
<td>Monopolistic Competition</td>
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<td>.54</td>
</tr>
<tr>
<td>Oligopoly</td>
<td>1.03</td>
<td>.41</td>
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<tr>
<td>Monopoly</td>
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<td>.38</td>
</tr>
<tr>
<td>Customer Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasional Customer</td>
<td>-1.38</td>
<td>.54</td>
</tr>
<tr>
<td>Both</td>
<td>.29</td>
<td>.53</td>
</tr>
<tr>
<td>Regular Customer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backward-looking and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecast about future</td>
<td>.96</td>
<td>.48</td>
</tr>
<tr>
<td>Price Adjustment Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In one shot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gradually</td>
<td>1.61</td>
<td>.38</td>
</tr>
<tr>
<td>Depend on situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1.71</td>
<td>.36</td>
</tr>
<tr>
<td>Economic Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.71</td>
<td>.36</td>
</tr>
<tr>
<td>Firm size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>.30</td>
<td>.03</td>
</tr>
<tr>
<td>Information Set*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.06</td>
<td>.28</td>
</tr>
</tbody>
</table>

6. Conclusion and Policy Implications

The behaviour of price setting might be affected by several factors related to firm characteristics, market share, type of customers, size of firms, market power, backward and forward information, price adjustment process, expected inflation, economic literacy, credibility of central bank and other factors. In this regard first, these variables are linked with price-setting behaviour through descriptive analysis i.e. how the firms respond to different shocks and characteristics of the firms? What are the determinants and causes of price? Second, to better understand the price-setting behaviour, these variables are modeled using the analytical technique, i.e. logistic regression. According to results firms increase the price is more likely than to decrease price in response to both demand and supply shocks; it means the
frequency of price increase is higher than that of price decrease. Furthermore, the response to supply shocks that cause to change in the price of product (i.e. both upward and downward) is high than that of the demand shocks. It means supply-side factors lead to higher frequency of price change than demand-side factors do. The cost of raw material and cost of energy are the most important causes of price change, both for the price increase and decrease. For imperfectly competitive firms, backward-looking firms, managers having more information about economic conditions, demand and cost shocks are important determinants of price change. If firms have regular customers, then there is a less chance that demand and cost shocks become important for price change. Credibility of central bank is important determinant of price change in case of demand shocks, while in case of cost shocks it does not play any role in price change. Size of firms and information set regarding expected inflation are not important determinants of price change in case of demand and cost shocks in case of price increase. Findings of this dissertation have some policy implications. Credibility of central bank has been found important determinant of price change. Therefore, to stabilize prices and to achieve low inflation, central bank must focus on establishing its credibility. This can be done through effective communication and achieving the targets. Credibility will make output-inflation trade-off favorable for central bank and will help making effective and efficient monetary policy.

Reference


Effect of Remuneration on Employee Commitment: An Empirical Evidence from Hotel Industry

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ARTICLE DETAILS

ABSTRACT

The purpose of the research is to evaluate the effect of remuneration on employee commitment. It explores how remuneration of employees can affect the Employee Commitment (EC). A self-administered questionnaire based upon previously validated instrument was completed by 165 customer contact employees. Pearson correlation and Simple Regression techniques were employed to ascertain the relationship between remuneration and commitment. Consistent with Gift Exchange Model of Adams and Jacobsen (1964), the statistical analysis confirms that remuneration has positive and significant effect on employee commitment. This research also extends the literature on the commitment of employees to the Hotel industry of Malaysia. The outcomes of this research could be used by tourism management to achieve comparative advantage over its competitors. This study also provides implications and future research directions.

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1. Introduction

The services industry plays a crucial role in the socio-economic development of both the developed and developing economies. The services industry recognizes the importance of experienced and trained workers in the survival and long-term growth of the organizations; thus, they acquire and retain them for uplifting the organization in the existing cut throat competition. Hotel workers have a critical part to play in interacting directly with clients. The previous research has highlighted that inadequate service experiences are mostly the outcomes of the inability of front-line workers to provide required services and satisfy customer’s needs (Xu et al., 2018). According to Ariffin and Che Ha (2014) this poor employee performance is a major concern for an Hotel industry in Malaysia that arises because of the lack of committed employees. Therefore, the absence of highly committed and motivated workers is a critical and recent issue in Malaysia's hospitality and tourism industry (Ariffin & Che Ha, 2014).
The biggest challenge for an organization is optimizing organizational efficiency and performance (Van Tiem, Moseley, & Dessinger, 2012). The desired outcomes cannot be produced by plants, machinery, and equipment as they have a reasonably set capacity of production (Ngwa, Adeleke, Agbaeze, Ghasi, & Imhanrenialena, 2019). It is only a human resource, the output of which is subject to a number of motivating factors such as commitment (Kerdpitak & Jermsittiparsert, 2020; Mathauer & Imhoff, 2006). The success of an organization depends not only on the quality of the human resources available to the organization, but also on the ability of the employee to produce the optimum output (Bailey, Mankin, Kelliher, & Garavan, 2018). The success of an organization is to a greater extent a function of effective and efficient management of human resources available in today's highly competitive environment (Becker & Gerhart, 1996; Guest, 2002; Liu, Combs, Ketchen Jr, & Ireland, 2007). This calls for the creation of a workforce empowered to provide the organization with the best possible output and efficiency in order to achieve its organizational objectives and goals (Ngwa et al., 2019).

Employees are bound to the organization by terms of a contract, trade union rules, state and human rights laws. Since such jobs cannot be substituted under unfavourable circumstances as machined are compelled to produce (Ngwa et al., 2019). However, when a company undertakes to meet the needs of employees, it stimulates an employee's willingness to return this favour with hard work and commitment (Blau, 1964). This is norm of reciprocity focuses on the ability of the organization to meet the needs of its employees and reward them for their efforts. Therefore, the main objective of this study is to empirically investigate the effect of remuneration on employee commitment, using Equity Theory also called Gift Exchange Theory (Adams, 1963; Adams & Jacobsen, 1964) among the customer contact employees in the hospitality industry of Malaysia.

2. Literature review
2.1 Remuneration
Remuneration is the amount of money paid to an employee for performing a particular work (Cobuild, 2006; Schreiner, 2018). The remuneration can be in the form of compensation, basic salary, wages, allowances (Transport, house, rent, overtime, medical) and pension schemes (Babagana & Dungus, 2015; Devers, McNamara, Wiseman, & Arrfelt, 2008). In the context of the current study, remuneration to employees in hotel industry has been taken as compensation or reward for performing their duties (Calvin, 2017; Devers et al., 2008). It includes all types of pay and rewards the employees receive in terms of wages, salaries, commissions, bonuses and incentives and non-financial benefits like insurance (Dessler, 2013; Ekhsan, Aeni, Parashakti, & Fahlevi, 2019).

2.2 Employee Commitment
Commitment is the personal bond of employees to their organization and the acceptance of organizational values and objectives (Meyer & Allen, 1997). It is a psychological attachment of an individual with an organization which reduces employee turnover intentions (Allen & Meyer, 1990). Employees who are committed and dedicated have a stronger involvement in the organization, and employees feel that they also have more respect for their organization, and that they always respect the organizational objectives (Meyer, et al., 1989). In addition, committed employees operate effectively on behalf of the organization and stay with the organization for extended periods of time (Allen & Meyer, 1990). Similarly, Cooper-Hakim and Viswesvaran, (2005) also highlighted that highly committed workers are more efficient and productive and less likely to leave.

Considerable efforts have been made to evaluate the connection between remuneration and employee commitment from a variety of perspectives. According to Mendonsa, (1998), benefits and rewards provide the basis to achieve competitive advantage; however, it is also a significant element in EC in the organization. Similarly, Manzoor et al., (2011) found that remuneration is the main factor for engaging the employees. Hence, it is asserted that employees expect rewards like salary, support in return of their commitment with the organization.
Thus, in spite of the aforementioned empirical EC research, still it is asserted from the extensive literature review that there are very few studies conducted in the Hotel industry, especially, in Malaysian context. Therefore, this study was another attempt to investigate the relationship between remuneration and the employee commitment in Malaysia's hotel industry.

2.3 Relationship between Remuneration and Employee Commitment
Employees are an asset to an organization. Many companies face growing challenges in enhancing the performance of their employees (Drucker, 2002). To overcome the poor performance of employees, the organizations develop a proper compensation system, which encourages employees to boost their performance (Bilal, 2017). Economic rewards are a way to compensate workers in monetary terms, such as wage raises and stock options (Mehran & Tracy, 2001; Weltmann, 2019). According to Ichniowski and Shaw (2003), remuneration plans improves employee’s performance and commitment supported by innovative work practices.

Remuneration is the amount paid to employees, either in the form of a lump sum or a monthly payment, which is perceived by individuals as an immediate feedback for their efforts (Gerhart, Rynes, & Rynes, 2003). A considerable amount of literature has been published on compensation, which is theoretically based and has shown the effect of compensation on performance (Akter & Husain, 2016). Calvin (2017) assessed the effect of remuneration on commitment in academic staff and found a positive significant relationship between remuneration and commitment. Hameed, Ramzan, and Zubair (2014) examined remuneration impact on commitment in various context and concluded a positive relationship between these two variables.

Remuneration is the rewards paid to workers whose production or performance exceeds some predetermined standards (Armstrong & Murlis, 2007) and exceeding of performance from the predetermined standards or the additional responsibilities being undertaken is called commitment (Lo, Ramayah, & Min, 2009). This notion is in consistent with Equity Theory of Adams (1963). According to the equity theory of remuneration motivation of an employee is based on what he or she believes to be equal when compared to others (Redmond, 2010). Since employees in organization expect to be compensated for equal levels of input like other employees, therefore, the allocation of fair remuneration becomes significant. The perceived equity of the effort-reward balance is essential in deciding the degree of commitment and performance of the employees (Calvin, 2017). Based on this theory of equity which is also called Gift Exchange Model of Adams and Jacobsen (1964) and Adams (1963), we hypothesize that:

\[ \text{H1: There is a positive and significant relationship between remuneration and EC.} \]

4. Methodology
4.1 Sampling and Data Collection
To study the perception regarding the remuneration and commitment level of the employees in the hospitality industry of Malaysia, 60 hotels in Johor Bahru were initially selected and were invited to participate in the survey. After contacting them, 42 hotels showed willingness to participate in the survey. The human resource managers of the selected hotels assisted the researchers in distributing 208 questionnaires to the customer contact employees. The process took almost three weeks. Out of the total, 180 were returned, of which 165 were complete in all respects and thus, were retained and used for final analysis. Among the respondent’s 30 percent were female while 70 percent were male within the age bracket of 20 to 65 years. Majority of the respondents were Malays (52%), followed by Indians (25%), Chinese (18%) and others (5%).

4.2 Measures
The scale to measure the remuneration construct of the study comprising 5 items was adapted from Tessema and Soeters (2006). Measurement of EC was adapted from a 9 items scale of Mowday, Porter,
and Steers (1982). Respondents used a 5-point Likert Scale in which “1” corresponded to “strongly disagree” and “5” to “strongly agree”.

5. Analysis
As illustrated in Table 1, the Cronbach’s alpha values for the constructs are higher than the suggested threshold of 0.70, consequently the measurement instrument was found to be reliable, hence, can be used for further analysis.

Table 1: Cronbach’s Alpha Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Alpha Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>REM*</td>
<td>0.751</td>
</tr>
<tr>
<td>EC**</td>
<td>0.861</td>
</tr>
</tbody>
</table>

*Remuneration, **Employee Commitment

5.1 Correlation Analysis
To ascertain the relationship between remuneration and employee commitment, Pearson correlation was used as reported in Table 2, providing that remuneration (r = 0.321, p-value <0.01) is significantly correlated with the employee commitment.

Table 2: Correlation Analysis for Remuneration and Employee Commitment

<table>
<thead>
<tr>
<th></th>
<th>EC</th>
<th>REM</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC*</td>
<td>1</td>
<td>.321**</td>
</tr>
<tr>
<td>REM**</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

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

5.2 Regression Analysis
To check the impact of remuneration on employee commitment, Simple linear regression was employed. The results depicted in Table 3 confirm that remuneration (F=23.717, p < 0.05) has significant and positive impacts (R² =0.103) on employee commitment (β = .321), thus, hypothesis of the current study is supported.

Table 3: Results of Regression Analysis

<table>
<thead>
<tr>
<th>Hypothesis 1</th>
<th>Dependent Variable: EC</th>
<th>Predictor: Remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>R value</td>
<td>0.321</td>
<td></td>
</tr>
<tr>
<td>R -Square value</td>
<td>0.103</td>
<td></td>
</tr>
<tr>
<td>(β)value</td>
<td>0.321</td>
<td></td>
</tr>
<tr>
<td>T-value</td>
<td>4.870</td>
<td></td>
</tr>
<tr>
<td>F- value</td>
<td>23.717</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

6. Discussion and Conclusion
The objective of this research was to assess the relationship between the remuneration and the employee commitment among the customer contact employees working in the hospitality industry of Malaysia. The results of the study indicated that remuneration positively and significantly affect the employee commitment. The findings of the study are in line with the prior studies (such as Ahmad, Shah, Bibi, & Shah, 2017; Calvin, 2017; Nor, Mohamed, Mohamed, & Hassan, 2020) providing that employees’ remuneration is positively related to their commitment in the workplace. The findings further reveal that employees receiving adequate remuneration would behave positively that facilitate the organization in achieving the organizational objectives and competitive advantages.

The findings of the study are supported by the Gift exchange theory which describes that individual in the workplace establishes and maintains social connections on the basis of their expectations from the organization that determine their behavior. Tansky and Cohen (2001) postulated that organizations that take care of the employees' prospects and values are in better position to have committed employees.
who don’t leave the organization for a longer period of time. Similarly, a study conducted by Woo and Chelladurai (2012) highlighted that workers who believe that they are appreciated and valued by their organizations and peers, they prove themselves to be more committed with the organizations.

7. Implications
From academic perspective, the current study contributes to the existing literature by empirically investigating the effect of remuneration on employee commitment in the context of hospitality industry Malaysia. This study provides guidance to the practitioners in the hospitality industry on how they can capitalize on their human resource that is a competitive advantage for an organization, in the presence of digital rivals, for example, Air b&b. Moreover, this study provides valuable insights to managers to groom and train employees in such a way that facilitate nurturing a supportive environment and satisfy the employees’ psychological needs, as it would motivate the employees to be more committed and go for an extra mile. Moreover, the current study guides the managers to devise/ revisit and implement the human resource management practices, in true sense, to enhance the employees’ commitment and satisfaction level for a better tomorrow. Failure to improve the employees’ commitment will lead to anxiety, depression, and frustration among the employees and, will result in employees’ turnover, leaving bad effects on the health of their hotels.

8. Limitations and Suggestions for Future research
Although the results of this study are interesting, however, there are some limitations. First, that data were collected in one province of Malaysia. Future studies are suggested to be carried out by including upscale hotels from other provinces of the country. Second, this study is cross-sectional in nature. A longitudinal research design could provide further insights into the effects of remuneration and its effect on employee commitment in the hospitality industry over time. Future studies may also be undertaken focusing other industries of the economy in order to determine the nature of the constructs used in the current study. Finally, it is recommended that future researchers may include some other variables such as the training and development programs, promotional policies of the organization, work stress and knowledge hiding behavior and their impacts on employee commitment should be examined for more in-depth insights on the nature of these constructs.

References


Trade Liberalization, Economic Growth and Environmental Quality Nexus: An Empirical Evidence from Pakistan

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ARTICLE DETAILS

ABSTRACT

The linkage between trade liberalization, environmental quality and economic growth is becoming an increasingly popular issue in environmental economics in recent decades. In view of Pakistan’s position as one of the main contributors to carbon dioxide emissions in Asia, it is vital to identify the main determinants of carbon dioxide emissions. The present study empirically investigates the long run association among trade liberalization, environmental quality and economic growth along with other variables energy use and capital labor ratio in Pakistan for the period 1980-2018. The results also indicate that there is inverted U shape relationship between economic growth and carbon dioxide emissions, hence the environmental Kuznets curve hypothesis is valid in Pakistan during 1980-2018. Trade openness has a negative significant impact on carbon dioxide emissions. Capital labor ratio effects and energy use have a direct relationship with carbon dioxide emissions. The results show that environmental quality is first declined by economic growth but with further increase in growth, environmental quality is improved which supports the existence of Environmental Kuznet curve hypothesis in Pakistan during that time span. Furthermore, results also show that trade openness has positive significant impact on environmental quality.

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1. Introduction

Trade liberalization and clean environment are the most dynamic factors that donate very essential role for attaining economic development. Economic development is directly and indirectly affected by these factors. Some critics claim that subsequently increased trade liberalization encouraged higher growth
and this must be cause to more industrial pollution and environmental degradation in developing countries. Furthermore, trade liberalization can deliver developing states with the encouragement to accept, the contact to new machineries which may give a cleaner or greener means of producing the good concerned. Trade is deliberated to be a catalytic agent for growth of economy. Trade has turn out to be an increasingly important economic movement, apparent from statistic that per year volume of trade expending sixteen times over period of last half century and grade of world’s exports to gross domestic product achieving twenty percent. It is seen that trade improves standard of living of countries through descending their living costs thus eventually leads to growth. These are known economic returns or monetary profits related with the trade openness. While we consider the economic payoffs, the social returns are often neglected and here social payoffs mean environmental costs.

Trade openness may have positive or negative impact on environmental quality depending upon economic growth generally economic growth has negative environmental impact at initial stage of development due to increasing use of energy. Environmental quality is being worsen by increasing economic activities and energy use initially but at later stage of growth and development, it is being improved due to increasing demand of cleaner environment to accomplish higher living standard. Demand for clean energy and technology also upsurges at later stage of growth and development. It can be summarized as growth and environment degrades environment initially but helps to improve environmental quality later. This quadratic effect is also identified as environmental Kuznet curve hypothesis. This study also tests and supports the presence of EKC hypothesis in Pakistan for years 1990-2018 and highlights the positive environmental impact of trade.

This study inspects the impact of growth, trade liberalization and energy use on environmental quality in Pakistan for years 1990-2018.

2. Literature Review

Hakimi and Hamdi (2015) investigated financial effect of liberalization of trade on quality of environment in case of Morocco and Tunisia economies. This study covered the period from 1971-2013 with time series data. The conclusion revealed that liberalization of trade had an adverse influence on environmental quality. Therefore, study recommended to policymakers of these countries to focus on the dramatic significances of trade openness on wellbeing of their peoples and encourage liberalization of green trade.

Hellen (2015) inspected the causality between trade liberalization, environmental quality and growth of economy in Kenya. The time series data was taken from 1970- 2012 for a period of 42 years. The ecological footprint was used as a dependent variable while trade openness, real Gross domestic product, energy structure, energy use, and urbanization were used as an independent variable in this study. The study found that there was a negative association among environment and growth of economy. In a short time of period, there was a negative relation between trade openness and environmental quality, and trade had an optimistic consequence on the environment in long period of time.

Honma (2015) analyzed the influence of trade openness on environmental quality. The following study covered time span from 1970 to 2008 for 98 countries. The finding exposed that freer trade was positively related to environmental quality. Though, the influence of freer trade on quality of environment differed over countries. The conclusion showed greater income per capita was leading to additional advantage of trade on quality of environment.

Jabeen (2015) analyzed the casual linkage between trade openness, income growth, emissions and energy use for the case study of Pakistan by taking annual data over the period of 1980 - 2013. The Cointegrated Vector Autoregressive technique and Johansen’s Cointegration method were employed. The conclusion exposed that trade had a positive impact on environmental quality for Pakistan economy. On other side, energy use, income growth and energy had the negative influence on environmental quality.
quality thus provide indication for the Environmental Kuznets Curve in Pakistan. Jadon et al. (2015) estimated the linkage between liberalization of trade, human capital and growth for selected Asian economies. The panel data had been used from the period of 1981 to 2012. The fixed effect model was used to analyze influence of trade liberalization on growth of economy and human capital. The dependent variable was economic growth while independent variables total labor force, capital stock, trade openness was used in this study. The study concluded that there was positive linkage between these variables for selected period and for selected Asian economies. The influence of trade on human capital had positive for all Asian countries but because of skilled human capital it significant only for the developed nations. The developing countries had not been achieved this level due to less skilled human capital. The study recommended that developing countries should be focused on investment in human capital to gain more useful effects of trade openness.

Bernard and Mandal (2016) analyzed influence of liberalization of trade on efficiency of environment for 60 emerging countries. This study analyzed trade openness and environment nexus for the period 2002 to 2012. Random and fixed effects model were used for estimation. The conclusion showed that trade openness had no important influence on environmental performance index and had a noteworthy positive effect on carbon dioxide radiations.

Mujahid et al. (2016) analyzed effect of trade openness on growth of economy in case of Pakistan economy. This study was based on time span 1971 to 2013 and time series data. The conclusion found the long run linkage between these particular variables, furthermore, finding of Error Correction technique exposed adjustment of short-run equilibrium. The Independent variables such as imports and exports were positively related to the gross domestic product.

Abdillahi et al. (2017) studied influence of trade liberalization on growth of economy in Kenya. This study used yearly data taken from 1970-2014. The conclusion showed that investment and labor force had a noteworthy effect on growth of economy. It furthermore exposed that human capital had no important impact on growth of economy and there was an encouraging and notable linkage among liberalization and economic growth. Fakher et al. (2017) studied nexus among environmental quality and growth of economy for selected developing states. The panel data was drawn from period of 1980-2012. The results indicated that economic growth was positively and considerably affected by trade liberalization. Furthermore, there was an optimistic and important influence of environmental quality on growth of economy and foreign direct investment had a progressive and noteworthy link with growth of economy.

Keho (2017) observed effect of trade on growth of economy for Cote d’Ivoire economy. This study covered the time span from 1965 to 2014. This study concluded that both in short and long run, trade had significant effects on economic growth. Moreover, there was a positive and strong linkage among freer trade and capital formation for accelerating economic growth.

Ofori and Asumadu (2017) studied the influence of FDI and trade on growth of economy of Ghana, based on annually time series data during time span 1986-2013. The result showed that gross domestic product and trade had significant optimistic effects in Ghana, while on the other hand, foreign direct investment inflows had a negative relation with gross domestic product growth.

Zahonogo (2017) inspected the effect of trade openness on growth of economy in the emerging economies, through more concentration on sub-Saharan Africa over the duration of 1980 to 2012. This study used the gross domestic product as a dependent and trade openness, inflation and external debt considered as independent variables. To estimate the long run equilibrium associations, Pooled Mean Group estimation method was employed. The conclusion found the association among liberalization and growth was significant and non-linear in long run for Sub Saharan Africa.
Balin et al. (2018) examined the association among trade liberalization and environmental degradation of Turkey by utilizing the time series data for 1974-2013. Variables used in this study were energy use, carbon dioxide emission, investment inflows, gross domestic product and trade openness. The consequences found that there was a long run and significant association among per capita gross domestic product, carbon dioxide emissions, foreign direct investment and per capita energy consumption.

Armeanu et al. (2018) investigated association among environmental pollution and growth of economy by taking panel data which consisted of 28 European Union countries from the time period of 1940-2014. The conclusion confirmed the evidence of EKC hypothesis. Furthermore, there was a short run significant relation between radiations of greenhouse gases and gross domestic product per capita.

Nguyen et al. (2018) explored the effect of carbon dioxide emissions on growth of economy in situation of Vietnam. The study was based on annual time series data they ranged from the period of 1986 to 2015. The finding showed that air pollution and growth level had a significant relationship in Vietnam. Furthermore, this study also concluded that carbon dioxide emissions had an adverse influence on growth of economy in long run.

Alvi, et al. (2019) found the relationship of trade liberalization, FDI inflow and environmental quality with economic growth in Pakistan and China over the period 1989-2018. By using ARDL Bound testing technique, the results found that trade liberalization and FDI have positive influence on economic growth in both countries while environmental degradation has negative influence on economic growth in both Pakistan and China.

Nathaniel (2019) modeled energy consumption, urbanization and trade flow with respect to environment. The study utilized data of Nigeria from the years 1980-2016. CO2 emissions was used as dependent variable in the study while energy consumption, trade openness, urbanization square, GDP and urbanization were independent variables. The study used STIRPAT model. The study found out that energy consumption and urbanization increased emissions of CO2 while trade caused the opposite.

Alola et al. (2019) found out the influence of major factors on ecological footprint in Europe. The study used ecological footprint as dependent variable and GDP, fertility rate, non-renewable energy use, renewable energy use and trade openness were used as independent variables. Data of 16 EU countries was collected from 1997-2014. The study used PMG-ARDL methodology. The results revealed that use of non-renewable energy harmed for environmental quality although use of renewable energy improved it.

Mahmood et al. (2019) studied the influences of trade openness on CO2 emissions. The study composed data of Carbon dioxide emissions and trade openness of Tunisia for years 1971 to 2014. The study applied integration analysis. The results confirmed EKC for Tunisia, moreover, the results also suggested that increased foreign trade harmfully affected the environment thus confirming PHH in Tunisia.

Arif and Ullah (2019) analyzed the relation between globalization and CO2 emissions for Pakistan. Over the years from 1975 to 2014. The study used CO2 emissions as dependent variable while economic globalization index, social globalization index, political globalization index, GDP and GDP square were used as independent variables. The study applied johansen cointegration and ARDL techniques. The results showed that globalization increased CO2 emissions, thus confirming EKC in case of Pakistan.

Jelbi et al. (2019) examined fundamental links among trade openness, energy use, tourism, FDI and economic growth. The data was collected from 22 central and South American states for years of 1995
to 2010. FMOLS and DOLS techniques were applied. The results showed bidirectional causality among trade, tourism, FDI, renewable energy, and emissions. Moreover, the results showed that trade and economic growth increased CO2 emissions while renewable energy, FDI and tourism condensed emissions.

Safdar et al. (2019) investigated the impact of environmental degradation on growth in 50 developing countries over the period of 1990 to 2016. By using PMG method, the study came to conclusion that energy use had positive link with growth while environmental degradation had negative link with growth.

Farooq et al. (2020) explored the impact of globalization and FDI on CO2 emission in OIC countries. By using GMM method, the study concluded that globalization and FDI are causing environmental degradation in low income OIC countries while reducing environmental degradation in high income OIC countries. In low OIC countries results supported the pollution heaven hypothesis while in high income OIC countries, there was evidence of pollution halo hypothesis. Furthermore, results concluded that institutional changes and urbanization also causing environmental degradation.

Murshed (2020) analyzed the effects of ICT trade on undergoing renewable energy transition, energy efficiency and clean cooking fuel access on environment in case of south Asian countries. The study employed CUP-BC and CUP-FM techniques. Data was collected from 2000-2016. The results depicted that ICT trade reduced energy intensity and increased renewable energy consumption. ICT trade was also found to be reducing CO2 emissions.

3. Data and Methodology
This part gives the variables that are selected on theoretical and empirical basis to find the connection between growth, trade openness and environmental quality in Pakistan. CO2 is used as the dependent variable and as a proxy of environmental quality while GDP, GDP2, energy use, trade openness and capital labor ratio are other independent variables.

3.1 Time Period
Time series data of Pakistan for time span 1975-2018 is being utilized to identify the association among dependent and the explanatory variables.

3.2 Data Sources
The study is grounded on the secondary type of data and the data is composed from WDI (World Development Indicator 2018) and Economic Survey of Pakistan.

3.3 Specification of Model
The study identifies the effect of GDP, energy use, trade openness and capital labor ratio on environmental quality.

\[ \ln CO_2 = \beta_0 + \beta_1 \ln GDP + \beta_2 \ln EU + \beta_3 \ln TO + \beta_4 \ln K/L \]

To test the validity of the Environmental Kuznets Curve hypothesis, the squared GDP variable is also included in above mentioned equation Therefore, the model is made as follows:

\[ \ln CO_2 = \beta_0 + \beta_1 \ln GDP_t + \beta_2 (\ln GDP_t)^2 + \beta_3 \ln EU_t + \beta_4 \ln TO_t + \beta_5 \ln K/L_t + \epsilon_t \]

Whereas

CO2 is Carbon dioxide emissions, GDP is Gross Domestic product, GDP2 is Square of gross domestic product, EU is Energy use, TO is Trade Openness and K/L is Capital labor ratio

Here \( \beta \)'s are the elasticities. Keeping in view of above model we evaluated the model to satisfy the hypothesis of study that is; the GDP is positively linked to environmental degradation while GDP2 is negatively related to environmental degradation and trade openness is negatively linked to environmental degradation.
4. Results & Discussion
This portion of study gives results of unit root, short-run and long-run estimates of ARDL and diagnostics analysis of study.

4.1 Unit Root Test
To check that data is stationary or not we use AFD and PP tests. The results attained by these tests are as follows.

### Table 1 Results of Unit Root Test

<table>
<thead>
<tr>
<th></th>
<th>ADF Test</th>
<th></th>
<th>PP Test</th>
<th></th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>1st difference</td>
<td>Level</td>
<td>1st difference</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.1034 (0.0350)</td>
<td>-0.6464 (0.9698)</td>
<td>-3.3334 (0.0204)</td>
<td>-0.4577 (0.9813)</td>
<td>1(0)</td>
</tr>
<tr>
<td>Trend and intercept</td>
<td>-5.8458 (0.0000)</td>
<td>-0.6035 (0.0001)</td>
<td>-6.0269 (0.9886)</td>
<td>-1.6081 (0.7705)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-2.5114 (0.1210)</td>
<td>-2.5715 (0.2946)</td>
<td>-2.5426 (0.1140)</td>
<td>-2.5715 (0.2946)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Trend and intercept</td>
<td>-6.6285 (0.0000)</td>
<td>-6.6773 (0.0000)</td>
<td>-6.7502 (0.0000)</td>
<td>-6.7502 (0.0000)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.5058 (0.5196)</td>
<td>-2.2675 (0.4403)</td>
<td>-2.1000 (0.4403)</td>
<td>-2.2675 (0.4403)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Trend and intercept</td>
<td>-7.5198 (0.0000)</td>
<td>-7.6079 (0.0000)</td>
<td>-7.5111 (0.0000)</td>
<td>-7.5111 (0.0000)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.2867 (0.0228)</td>
<td>-0.5674 (0.9752)</td>
<td>-3.1765 (0.0295)</td>
<td>-0.6026 (0.9729)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Trend and intercept</td>
<td>-4.6869 (0.0006)</td>
<td>-5.6187 (0.0003)</td>
<td>-4.7331 (0.0005)</td>
<td>-5.6131 (0.0003)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.3239 (0.9116)</td>
<td>-2.3798 (0.3834)</td>
<td>-0.2651 (0.9206)</td>
<td>-2.3798 (0.3834)</td>
<td>1(1)</td>
</tr>
<tr>
<td>Trend and intercept</td>
<td>-6.2698 (0.0000)</td>
<td>-6.2659 (0.0000)</td>
<td>-6.2821 (0.0000)</td>
<td>-6.3006 (0.0000)</td>
<td>1(1)</td>
</tr>
</tbody>
</table>

Table 1 displays the consequences of ADF and PP unit root test. The carbon dioxide emission is stationary at level While all other variables such as Gross domestic product and its square, energy use and capital labor ratio lie on 1st difference. Hence, the results of unit root test are mix, so the (ARDL) method or technique is employed in our study. The bound test estimation is demonstrated to find the long run assessment of association amongst series of variables before employing the ARDL.

### Table 2 Results of Bound Test

<table>
<thead>
<tr>
<th></th>
<th>At 5% Significance level</th>
<th>At 10% Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Statistic</td>
<td>Lower bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>4.383354</td>
<td>2.62</td>
<td>3.79</td>
</tr>
</tbody>
</table>

This table shows the bound method results. In this table, the F-statistics value is larger than upper bound at 5 and 10 percent level of significance so it is concluded that longrun relationship among chosen variables exists in our model.

4.2 Estimates of ARDL Model
Table 3 gives longrun, shortrun results of model.
Table 3 displays the results of Autoregressive Distributed Lag Model. The study comes to conclusion that one percent rise in GDP rises CO\textsubscript{2} by 0.001 percent, the statistically important and positive association between GDP and CO\textsubscript{2} emissions exists. As GDP increases, CO\textsubscript{2} emission also increases. Further, the results show that square of GDP has statistically negative relationship with CO\textsubscript{2} emissions, somewhere 1 percent rise in GDP\textsuperscript{2} lessens CO\textsubscript{2} emissions by approximately 0.011 percent. It indicates that the association between GDP, the Square of GDP and CO\textsubscript{2} is inverted U-shaped which approves the presence of EKC hypothesis in Pakistan during time span 1990-2018. Our result is similar to McCraneys (2008); Ahmad (2015); Ali (2017) and Balin (2018).
Furthermore, the coefficient value of energy use is statistically substantial and positively associated with CO\textsubscript{2} emissions. The 1 percent rise in EU increase the CO\textsubscript{2} emissions by 1.51 percent. The positive relationship of CO\textsubscript{2} with EU shows that Air pollution tends to rise as energy use increases. This explains that energy use has unfavorable effect on environmental quality. Our conclusion is in accordance with Ahmad (2015); Jabeen (2015) and Balin (2018).

The long run coefficient value of Trade openness is negative and statistically significant which explains that 1 percent rise in trade declines CO\textsubscript{2} emissions by 0.08 percent. The negative relationship among TO and CO\textsubscript{2} shows that openness leads to improvement in environmental quality and there is a favorable consequence of trade openness on CO\textsubscript{2}. This finding is supported by study of Shabaz et al. (2012) who investigated that trade openness lessens carbon dioxide emissions due to technical change in Pakistan. This finding is also supported by the work of Ahmad (2015) and Jabeen (2015).

The coefficient value of K/L is positive but statistically insignificant. one percent rise in K/L rises the CO\textsubscript{2} by 0.06 percent. This result is consistent with Cole (2006) who claimed that composition effect or K/L ratio is positively associated with energy use and carbon dioxide emissions.

The short run analysis of this Model indicates most of variables are insignificant while signs are mixed. In this model, the sign of co integration coefficient is negative and the value of co integration is -0.677542 which is statistically significant. According to this value of coefficient, 67 percent of the discrepancy or inconsistency will be closed within the next year among the long-run and short-run.

4.3 Diagnostic Analysis for Model
This section indicates the fitness of model. In our study, different diagnostic tests are used to evaluate heteroskedasticity and auto-correlation analysis.

<table>
<thead>
<tr>
<th>Tests</th>
<th>F-Statistics value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breuch Godfry Serial Correlation LM Test:</td>
<td>1.871891</td>
<td>0.1775</td>
</tr>
<tr>
<td>Heteroskedasticity Test: Breush Pagan Godfry</td>
<td>0.551727</td>
<td>0.8478</td>
</tr>
</tbody>
</table>

The results of Diagnostic Analysis illustrate that there is no serial correlation and heteroscedasticity problem in our model.

5. Conclusion & Policy Suggestion
The study identifies the impact of growth and trade openness on environmental quality in Pakistan for years 1980-2018. CO\textsubscript{2} emission is used a proxy for inspecting environmental quality. The results show that environmental quality is first declined by economic growth but with further increase in growth, environmental quality is improved which supports the existence of Environmental Kuznet curve hypothesis in Pakistan during that time span. Furthermore, results also show that the trade has positive substantial impact on environmental quality.

There are some policy implications that should be useful for policy makers to suggest policies in order to lessen the environmental degradation and improve environmental quality in Pakistan. These policy recommendations are as follows,

1. As the study comes to conclusion that environmental quality is being affected at first stage of growth and is being improved with further growth and development so government of Pakistan should take serious step to improve environmental quality from initial stage.

2. The study illustrations that trade openness has vital negative impact on environmental degradation in other words environmental quality is being improved with trade openness.
Government of Pakistan should formulate such policies that gains from trade could be maximized and environmental cost could be minimized.

3. The results indicate that environmental quality is badly affected by energy use, as energy use increases, environmental degradation also increases so government of Pakistan should ensure environmental friendly use of energy.

References


Role of Higher Education in the Development of Generic Competencies for Job Market: Perception of University Graduates

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ARTICLE DETAILS

ABSTRACT

The quantity of higher education is rapidly increasing, but the quality is still questioned about provision of generic competencies among graduates. In order to increase employability of graduates the universities are making efforts to equip graduates with skills and capabilities to integrate them in the job market. The principle objective of the current study is to investigate the perceptions of university graduates about the role of higher education in the development of generic competencies for job market. A quantitative survey research design was used. The total 510 graduates were selected through convenient sampling technique from three public universities. The collected data were analyzed with the help PSL-SEM. The results showed the higher education developed generic competencies among graduates partially, hence not fulfilling the need to actual extent which is required in the job market.

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1. Introduction

Higher education plays an important role in the economy of any country which aims to prepare such professionals which may satisfy the demand of the job market. In addition, it is a big source of providing the competent professionals that can mold an underdeveloped nation toward progress, prosperity and technology driven economy. The term competencies developed in higher education can be defined as, knowledge, skills, or attitude that enable individual to efficiently perform the actions of a specified profession after graduation (Chyung et al., 2010). There are two types of competencies; specific and generic. Specific competencies are those which are related to a particular field while generic competencies are common and necessary in every field. In literature, researchers have also identified important generic competencies which are being demanded in the job market. According to Field (2017), higher education should enable the graduates to work efficiently, perform well under pressure, work productively with others and adapt challenging situations. In the same perspective, another study
describes that the graduates must be able to work cooperatively with others, adaptable the situation, creative and good communicator (Velasco, 2012). In addition, Crebert, et al., (2004) described, the communication, problem solving, creativity and ICT competencies are needed in the current job market. Whereas, Armstrong (2003) quoted that these competencies are (1) communication, (2) result based, (3) customer focuses, (4) team work, (5) leadership, (6) planning and organizing, (7) work awareness, (8) flexibility, (9) adaptability, (10) interpersonal and problem solving.

The probability of employability can be raised by developing generic competencies among graduates which helps them in market through formal and informal learning activities (Harvey, 2002). However, to achieve sustainable job market there is increasing demand of graduates with more generic competencies. These competencies are oral and written communication, ICT, problem solving and adaptability, creativity and team work. These generic competencies, enabled the graduates to graduates face the new challenging situations successfully. The brief preview of these generic competencies is as below.

1.1 Oral and Written Communication Competencies

Oral communication is the capacity to convey one’s message or thought in a appropriate tone and style by using proper words following the grammar rules of a particular language. While, written communication means writing documents clearly and precisely in a meaningful way following grammar rules and styles of the particular language. Oral communication requires the ability of listening and comprehend while written communication requires the ability of reading comprehensively. The good oral and written communication are most significant competencies for getting and sustaining jobs (Maes, 1997). The practitioners were of the view that in order to fulfill the need of good communication the higher education can be an effective channel for the graduates(Gray, 2010).

1.2 Problem Solving and Adaptability Competencies

The problem solving is a step by step processes of transformation the problematic conditions through comprehensive thinking (Martz & Brown, 2017). Hence, it can be depicted that problem solving is the ability refers to the logical thinking to find out some suitable solution of the desired goals and take practical actions for the achievement of that goal. In addition, Higher education is supposed to create problem solving competency among the graduate in order to enable them to find out the workable solutions of the problem which a firm may face in market.

1.3 Creativity Competency

In recent decades, the innovative and creative workforce acquiring an important place in the market due to constructive and comprehensive thoughts to cope with the new emerging challenges at the workplace. To achieve this purpose, Universities are encouraging the students to take part in innovative and creative activities in order to develop them into potential candidates for the job market in future (Comunian & Gilmore, 2014).

1.4 ICT Competencies

The ICT has changed this world into a digital global village. Therefore, to achieve the international compatibility in the work environment, the demand of competency at the work place has increased. Consequently, the computer education as subject are incorporated in graduate programs and pedagogy with CAI (Computer Assistant Instructions) are initiated to develop the ICT competencies among the students (Ashfaq & Abbas, 2018).

1.5 Team Work Competencies

The current era is the era of collaborations and cooperation, to enhance the firm performance. The sustainability in economic sector is not possible without the team work approach because it is helpful for raising the human potentials to deal and handle different societal and directorial tasks (Hodges & Burchell, 2003). Therefore, the workforce with such competencies are highly demanded in the job market. Thus, university education is supposed to supply the highly skilled workforce who can perform as good team members in future.
Therefore, to make the higher education up-to the level of the current demands of competence development, many reforms have been taken in higher education system world widely. Keeping in view this purpose, European countries are following Bologna system of higher education which is signed by 46 European countries (Little & Arthur, 2010). The main aim of bologna declaration was to maintain European higher Education area in global context by retaining the quality of relevance, ensuring the competencies among graduates that lead them toward working lives and making system more general than before. Similarly, in Pakistan the HEC (Higher Education Commission) is responsible to ensure the quality of higher education by assisting higher education institutions to function as an engine for economic development of society.

Relevance of higher education to the economy is included in strategic plan of HEC in Pakistan. The higher education commission in action plan of 2015, also realized the importance of competencies compatible with the rapidly changing global economy and emphasized on the skilled based market-oriented education. Though HEC has recognized the importance of competency development yet Pakistan is still facing problems in this regard as the government of Pakistan is spending only 0.3% of GDP on higher education which is considered lowest on world average of education expenditure (HEC, 2005). This problem is also due to the main focus of university teachers are still on memorization without due considering of practical competencies like critical, problem solving, time management and ICT abilities which are need of 21st century (Hoodbhoy, 2009). Consequently, the unemployment ratio among graduates is high. Therefore, there is need to study/investigate that how far university education is developing the generic competencies among the university graduates keeping in view the job market demand.

Therefore, this study is focused to investigate the university students’ perception of their generic competencies developed during their higher education and the level of their belief that to what extent these generic competencies would enable them to get job after their graduation.

2. Research Methodology

The current study was descriptive in nature and the quantitative survey research design was used. A 7-points Likert scale were developed to measure their perception about their generic competencies (Oral communication, written communication, team work, ICT, creativity, problem solving and adaptability) which are being producing higher education for job market and the dependent variable “Belief to find job” after their graduation. These scales were adopted from Andleeb (2015). The questionnaire was validated through expert opinion after that the instrument used for pilot testing. A pilot test was conducted on the 265 graduates which were selected from two faculties (Social science and behavioral sciences) of university of Sargodha. Reliability of the research instrument was ensured by the Cronbach Alpha in the pilot testing. After pilot testing, deletion of some items was made to ameliorate reliability. The Alpha values are as below.

Table 1. Alpha values of the scales

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of Items</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Belief of finding job (BFJ)</td>
<td>1-6</td>
<td>.754</td>
</tr>
<tr>
<td>2 Oral communication (OC)</td>
<td>7-14</td>
<td>.886</td>
</tr>
<tr>
<td>3 Written competencies (WC)</td>
<td>15-23</td>
<td>.893</td>
</tr>
<tr>
<td>4 Problem solving and adaptability (PS)</td>
<td>24-35</td>
<td>.917</td>
</tr>
<tr>
<td>5 Critical Thinking skills (CS)</td>
<td>36-45</td>
<td>.905</td>
</tr>
<tr>
<td>6 Team work (TW)</td>
<td>46-55</td>
<td>.934</td>
</tr>
<tr>
<td>7 Info &amp; Communication Tech skills (ICT)</td>
<td>56-62</td>
<td>.895</td>
</tr>
</tbody>
</table>

A multi sampling technique was used for representative sample. At the first stage, four public universities, the University of Sargodha, University of Gujarat, GC University of Faisalabad, and Islamic University Bahawalpur were selected through purposive sampling technique. The inclusion criterion for these universities was to target the population of agrarian and industrial regions. At the second stage, four departments (Education, Economic, Psychology and Political sciences) from the faculty of Social and Behavioral Sciences were selected from four sampled universities. A Sample of
five hundred and ten (510) graduates (10% from each department of all universities) was selected conveniently from these public universities.

3. Analysis and Results
The main objective of the current study was to investigate the role of generic competencies developed during the students’ graduation for developing their belief of getting job in the job market. There were six independent variables in terms of six generic competencies and “Belief of finding job” (BFJ) as dependent variable. Therefore, following hypotheses were generated:

H1: There is significant effect of Critical thinking skills on the belief of students to find the job after graduation.
H2: There is significant effect of ICT skills on the perception of students to find the job after graduation.
H3: Oral communication skills developed in higher education significantly affect the students’ belief of finding the job.
H4: There is significant effect of Problem solving and adoptability skills on the perception of students to find the job in the job market.
H5: There is significant effect of Team Work skills on the perception of students to find the job in the job market.
H6: there is significant effect of written communication skills on the students’ belief of finding the job.

In addition, to study the effect of gender on the perception of the graduates about the role of higher education in developing the generic skills necessary for job market, the hypotheses H7 to H12 were tested in the structural model given in figure 2. Later, in the second stage, coefficient of determination, regression coefficients were computed in the structural model.

3.1 Measurement Model
This section discusses the data analysis and its results in a detail. Prior to the hypothesis testing, it is suggested by the various scholars in the field of PLS-SEM (i.e., Hair et al., 2019) that latent constructs’ factor loadings, composite reliability, convergent validity and discriminant validity must be ensured. The table 4.1 shows that all items of latent constructs are showing value above the threshold value of 0.60 recommended by the Hair et al., (2011). Items below than 0.60 were deleted from the model.
Furthermore, internal consistency was examined through the composite reliability that lies between 0.70 to 0.942 for all latent constructs in the measurement model. Therefore, the internal consistency was established in the current study. In addition, the convergent validity was ensured by examining the average variance extract (AVE). The threshold value of AVE is 0.50 as indicated by the various previous authors (i.e., Hair et al., 2019; Abbas et al., 2020; Lo & Tian, 2019). The results show that all constructs are well above the threshold level as AVE value lies between 0.50 to 0.640 for all latent variables. Hence, convergent validity is also established for the current study.

Table 2. Factor Loadings, Composite Reliability and Average Variance Extracted

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>items Loadings</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief of getting Job (BFJ)</td>
<td>BFJ1</td>
<td>0.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BFJ2</td>
<td>0.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BFJ3</td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BFJ4</td>
<td>0.811</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BFJ5</td>
<td>0.804</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BFJ6</td>
<td>0.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical thinking skills</td>
<td>CS1</td>
<td>0.680</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS2</td>
<td>0.745</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>0.709</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS4</td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS5</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS6</td>
<td>0.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS7</td>
<td>0.759</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS8</td>
<td>0.726</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To assess the discriminant validity, the HTMT ratio proposed by Hensler et al., (2015) was employed. The Heterotrait-Monotrait ratio of correlations (HTMT) is a process for assessing discriminant validity in partial least squares structural equation modeling (PLS-SEM), which is one of the key building blocks of model evaluation (Guerra-Tamez et al., 2020). The Table 4.2 reveals that all values of the constructs show values less than 0.85 recommended by Hensler et al., (2015). It shows that all latent constructs of the current study are distinct from each other on empirical standards.

Table 3. Discriminant Validity by HTMT

<table>
<thead>
<tr>
<th>BFJ</th>
<th>CS</th>
<th>ICT</th>
<th>OC</th>
<th>PS</th>
<th>TW</th>
<th>WC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS9</td>
<td>0.717</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS10</td>
<td>0.646</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT skills</td>
<td>ICT1</td>
<td>0.806</td>
<td>0.700</td>
<td>0.541</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICT6</td>
<td>0.657</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral communication skills</td>
<td>OC1</td>
<td>0.752</td>
<td>0.905</td>
<td>0.544</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC2</td>
<td>0.762</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC3</td>
<td>0.748</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC4</td>
<td>0.751</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC5</td>
<td>0.783</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC6</td>
<td>0.739</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>OC7</td>
<td>0.723</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC8</td>
<td>0.633</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem solving and adaptability skills</td>
<td>PS1</td>
<td>0.703</td>
<td>0.923</td>
<td>0.502</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS2</td>
<td>0.735</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3</td>
<td>0.650</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS4</td>
<td>0.662</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS5</td>
<td>0.694</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS6</td>
<td>0.734</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS7</td>
<td>0.731</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS8</td>
<td>0.703</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS9</td>
<td>0.735</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS10</td>
<td>0.715</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>PS11</td>
<td>0.690</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS12</td>
<td>0.743</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teal work skills</td>
<td>TW1</td>
<td>0.727</td>
<td>0.942</td>
<td>0.618</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TW2</td>
<td>0.760</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>TW3</td>
<td>0.770</td>
<td></td>
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<tr>
<td></td>
<td>TW4</td>
<td>0.805</td>
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<tr>
<td></td>
<td>TW5</td>
<td>0.825</td>
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<tr>
<td></td>
<td>TW6</td>
<td>0.746</td>
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<td>0.814</td>
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<td></td>
<td>TW9</td>
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<td></td>
<td>TW10</td>
<td>0.781</td>
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<tr>
<td>written communication</td>
<td>WC1</td>
<td>0.753</td>
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<td></td>
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<td>0.788</td>
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<tr>
<td></td>
<td>WC3</td>
<td>0.787</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>WC4</td>
<td>0.708</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>WC6</td>
<td>0.733</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>WC7</td>
<td>0.726</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>WC8</td>
<td>0.696</td>
<td></td>
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</tr>
</tbody>
</table>
Belief of finding Job

<table>
<thead>
<tr>
<th>Critical Thinking Skills</th>
<th>0.556</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT Skills</td>
<td>0.379</td>
</tr>
<tr>
<td>Oral Comm skills</td>
<td>0.630</td>
</tr>
<tr>
<td>Problem Solving &amp;</td>
<td>0.547</td>
</tr>
<tr>
<td>Adaptability skills</td>
<td></td>
</tr>
<tr>
<td>Team Work skills</td>
<td>0.497</td>
</tr>
<tr>
<td>Written Comm</td>
<td>0.586</td>
</tr>
</tbody>
</table>

3.2 Coefficient of Determination

The coefficient of determination denoted by $R^2$ is used to measure the variation in dependent variable explained by the independent variables or predictors. Therefore, for a structural model of multiple regression relations, $R^2$ is used as the measure to evaluate it. It measures the predictive power of the model which is consisted of given set of independent variables exerting the combined effect of the endogenous latent variable. In this way it can be said that $R^2$ mentions the likelihood of future variables/event which enhance the prediction of the endogenous variable. Its value varies from 0 to 1, which can be interpreted as 0% to 100% variation in dependent variable is explained by the predictors in a model or multiple regression analysis. The $R^2$ value is equal to 1 means a perfect fit of model, while value ranges to 0.75 is considered to be substantial and 0.5 is considered to be a moderate. However, if its value is less than or equal to .25, it shows that model is relatively weak in predicting the endogenous variable (Hair et al., 2011; Henseler et al., 2009). Here for this model, $R^2$ was calculated in table 4 to measure the total variance explained by the six generic skills on the perception of the students to find the employability.

<table>
<thead>
<tr>
<th>Table 4. Coefficient of Determination</th>
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</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>BFJ</td>
</tr>
</tbody>
</table>

The Table 4 unfolds the value of $R^2$ for the current study is 0.35 which is deemed to be a moderate and it can be assumed that the selected six generic competencies explained the 35% of the dependent variable of belief of the students to find the job.
3.3 Structural Model

The current study employed the bootstrapping method to examine the hypothesized relationships. The Figure 4.2 and Table 4.4 show the results of the hypothesis testing.

![Structural Model Diagram]

The results of the structural model show in the table 4.4. The hypothesized relationship of the conceptual model unfolds results for direct path and the indirect path with mix results. The first hypothesis H₁ shows the significant relationship between CS and BFJ ($\beta = 0.153 \ p<0.05$) thus accepted. Similarly, H₃ ($\beta = 0.312 \ p<0.01$) and H₅ ($\beta = 0.138 \ p<0.10$) also show significant relationship withBFJ, therefore both hypotheses were accepted. However, Direct path of H₂ ($\beta = -0.010 \ p>0.10$), H₄ ($\beta = 0.003 \ p>0.10$) and H₅ ($\beta = 0.049 \ p>0.10$) reveal insignificant relationship with BFJ, hence rejected.
Table 4.4. Results of hypothesis testing

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>β</th>
<th>Standard Deviation</th>
<th>t-values</th>
<th>P values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Paths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>0.153**</td>
<td>0.076</td>
<td>2.010</td>
<td>0.045</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>-0.010</td>
<td>0.037</td>
<td>0.272</td>
<td>0.785</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>0.312*</td>
<td>0.068</td>
<td>4.595</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>0.003</td>
<td>0.080</td>
<td>0.036</td>
<td>0.971</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5</td>
<td>0.049</td>
<td>0.075</td>
<td>0.659</td>
<td>0.510</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6</td>
<td>0.138**</td>
<td>0.075</td>
<td>1.838</td>
<td>0.066</td>
<td>Accepted</td>
</tr>
<tr>
<td><strong>Indirect Paths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H7</td>
<td>0.085</td>
<td>0.070</td>
<td>1.213</td>
<td>0.225</td>
<td>Rejected</td>
</tr>
<tr>
<td>H8</td>
<td>-0.046</td>
<td>0.045</td>
<td>1.021</td>
<td>0.307</td>
<td>Rejected</td>
</tr>
<tr>
<td>H9</td>
<td>-0.080</td>
<td>0.067</td>
<td>1.200</td>
<td>0.230</td>
<td>Rejected</td>
</tr>
<tr>
<td>H10</td>
<td>0.009</td>
<td>0.079</td>
<td>0.115</td>
<td>0.908</td>
<td>Rejected</td>
</tr>
<tr>
<td>H11</td>
<td>-0.050</td>
<td>0.077</td>
<td>0.653</td>
<td>0.514</td>
<td>Rejected</td>
</tr>
<tr>
<td>H12</td>
<td>0.089</td>
<td>0.072</td>
<td>1.228</td>
<td>0.220</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.05

In addition, indirect path with moderating effect of gender on the relationship between CS and BJF (β=0.0.85 p>0.10), ICT and BJF (β=0.0.46 p>0.10), OC AND BJF (β= -0.080 p>0.10), PS and BJF (β=0.09 p>0.10), TW and BJF (β= -0.050 p>0.10), WC and BJF (β=0.089 p>0.10) shows insignificant relationship, therefore rejected the all hypothesis. The moderating effect of gender could establish its moderating effect on the aforementioned latent construct as a moderator.

4. Discussion

The key rule of higher education is to develop competencies among graduates and to prepare them for job market. Therefore, the present study was aimed to investigate the role of higher education in the development of generic competencies i.e. Oral communication, written communication, creativity, teamwork, ICT, problem solving and adaptability. The result of present study also found that graduates had the perception that the critical thinking skills developed in graduation significantly enhance the belief of finding the job. Similarly, oral communication and written communication skills developed during higher education significantly ameliorate the belief of getting job competencies and job etc. The results of this study are supported with the evidence of Barnet study that the HE producing competencies among graduates regarding job market demand. The study of Kęstutis & Nora (2010) also revealed that graduates classroom make them competent enough to be successful in their professional career. Furthermore, the study of Singh & Singh (2008) demonstrated that the graduates had also positive perception about the development of competencies among them.

However, the findings of the study also showed that the problem solving and adoptability, teamwork and ICT skills showed nonsignificant effect on the perceptions of the students to get job after completing their degree. The results are aligned with the Nicolescu & Pun (2009) study, he found that the higher education system fulfilling graduates requirement of competencies but in this competitive edge, the employers and graduates expect more to sustain their existence. The researchers, such as, Lee Harvey (2010) also suggested that the competencies development-based education should deliver to graduates for attainment of competitive edge in job market. Furthermore, findings of the study confirm the viewpoint, partially explained in human capital theory which suggests that higher education have return in shape of economic development.

5. Conclusion and Recommendations

This study focused the belief of the students about role of general competencies; i.e. Oral communication, written communication, creativity, teamwork, ICT, problem solving and adaptability.
which higher education should produce among graduates to make them enable for job market. To explore this role of higher education and keeping in view the research objective of the current study, the research question raises that to which extent the higher education develops generic competencies among graduates to meet demands of job market? The results of the study found that the higher education is preparing graduates for labor market but, it is not developing as much extent of competencies as graduates expect keeping in view the demand of the job market. This is supported by the view of previous researchers work like Štimac & Simic (2012) and Abbas & Ashiq (2017), who documented that the expectation of graduates and other stake holders are more than actually received. It can be concluded basing on the findings of the study, revealed that the higher education in Pakistan is developing generic competencies like: Oral communication, written communication and critical thinking skills, which are significantly affect the perceptions of the graduates. Graduates were of the belief that these skills learned during graduation enabled them for the job market. However, the results of the study also showed that the other generic competencies like ICT, team work, problem solving and adaptability skills, did not significantly affect the perception of graduates with relevant to existing job market.

Conclusively, among many other roles of higher education, the most important function is to produce workforce, according to demand of job market (Koda, 2011). Research indicates that the individuals were described pulses for business success and also considered as source of getting competitive advantages among competitors. With the help of competent personnel, a company can get breakthrough in job market and also can sustain competitive advantages (Crawford, 1991). Further, this fact puts great responsibility on Higher education system to develop competencies among graduates to become successful personnel in the job market.

The current study explored the relationship between higher education and labor market through generic competencies such as, oral communication, written communication, problem solving and adaptability, creativity, ICT and team work that are needed in every field of life. The study found that graduates had competencies but not according to that extent which is demanded in job market. Hence, there is immense need of revisions in curriculums and its implementation with true letter and sprite. Although, as a whole the universities are taking an active part to encourage graduates for the use of ICT for learning activities, as well as digital integration in their curriculum, however these are yet to be implemented effectively.

Therefore, due to this gap of graduate degrees and job market, the unemployment among graduates is increasing every year. To overcome this problem, the study suggested that universities should realize the worth of linkages with organization and outreach programs, and provide a platform where employers share experience-based knowledge and job market demands with graduates. It may help to minimize gap between graduates’ supply and employers’ demand.

The study found that higher education producing competencies among graduates partially, thus another solution to develop generic competencies is to offer internship programs. It may be a big source to enhance field competencies among graduates at great extent. In this way, the internship programs (linguistic, youth training program, work with professor, researcher or some remarkable institutes) can be helpful to aware graduates about job market demand.

In nut shell, graduates are considered as human capital and most valuable source for economic development of a country. A nation has physical, financial and technical resources, but without an educated and skilled human capital with generic competencies, it cannot achieve the development goals (Štimac & Simic, 2012). Thus, it is an essential need of the hour to enhance the generic competencies among students considering them the important human capital to overcome the problem of unemployment and to strengthen the economy.
References


Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in


The Effects of Socio-Cultural Context on Breach of Accounting ethics: A Grounded Theory Study

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ARTICLE DETAILS

ABSTRACT

This study explores intuitions of accounting education key stakeholders in Khyber Pakhtunkhwa, Pakistan that what are the effects of social and cultural factors on ethical breaches of accountants and tax evasion. Individual and organizational decisions are based on accounting yet, social and cultural obligations coerce accountants on manipulation of accounts for tax evasion that has negative impact of national exchequer. This study attempts to realize insights of important stakeholders about AE through methodical support of its multifaceted angles. Literature highlights that personal, organizational (multi)national decisions are based on accounting information. Stakeholders’ theory lens is applied as it is widely used in accounting research. Researchers have applied qualitative research approach to provoke 25 open-ended interviews of respondents like, accounting teachers, students, professionals, employers, recruiting agencies and their parents. Data are analyzed through constructivist grounded theory. Findings show that excessive social demands compel accountants on unethical accounting practices for tax evasion that is detrimental for the nation as it makes corruption acceptability in society. In context of the study, weak academic and HR policies lead to appointment of less relevant persons for leading accounting seats. Recommendations of the study are societal interventions, academic endorsements, regulatory and legislative suggestions for eradication of ethical breaches by accountants generally and tax avoidance specifically.

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1. Introduction

Accounting is critical function in organizational sciences which not merely records and disseminates numbers rather also involves interpretation. Accountants may report and interpret institutional
transactions in multiple forms and ways (Duska, Duska, & Ragatz, 2011; Klein, 2015; Riccaboni, Giovannoni, Giorgi, & Moscadelli, 2006). International regulatory bodies of accounting have prescribed a comprehensive set of ethical guidelines along with detailed laws followed around the world. Aims of International Federation of Accountants (IFAC) are to develop, accept and apply global ethical standards for accounting professionals (Cameron & O’Leary, 2015; Chandler, 2017; Klein, 2015; Mintz, 2014). Members of American Institute of Certified Public Accountants (AICPA) follow its ethical code (Bealman, 2013; Duska et al., 2011; Lawson, Spencer, & Turek, 2016). Associates of Institute of Chartered Accountants of Pakistan (ICAP) must keep to its Code of Ethics (Hossain & Nurunnabi, 2011). Nevertheless, globally, misrepresentation in accounting data have been common in public and private sector. Accountants manipulate organizational accounts (Ashraf & Ghani, 2005; Carmona & Ezzamel, 2007; Cooper & Robson, 2006; Low, Davey, & Hooper, 2008). Thus, accounting professionals bypass ethical boundaries in professional duties which proves disastrous for society.

This does not always cause disasters or immediate damage. Ineffective governance in financial terms may be spotted slowly (Lakshmi, 2018). In fact, most of the times minor or small “manipulation” in accounting record are not easily traceable. Accounting information big users like stock exchange supervisors and professional investors can sense manipulations (Vludu, Amat, & Cuzdriorean, 2017). Nevertheless, manipulations act like “slow poison” in the long run and can lead to a variety of problems including dwarfed or negative growth or even insolvency. Unethical practices of accountants lead to less human activities and difficulty of reconstruction (Gill, 2012). Firms suffer due to management preference for their own benefit at the cost of institutional good (Burns, Tackett, & Wolf, 2015; Duska et al., 2011; Rizvi, Tanveer, Saleem, & Latif, 2012; Roy, 2017; Sikka & Lehman, 2015; Uyar, Kuzey, Güngörmüs, & Alas, 2015). Research on causes of misrepresentation in financial data identifies a variety of reasons, Accountants manipulate accounts for own or organizational benefits (Duska et al., 2011; Rebich, 2013; Smith, 2014), due to ignorance (Rebich, 2013), academic dishonesty (Caldwell & Hayes, 2010; Curtis & Williams, 2014), lesser audit fee (Ashraf & Ghani, 2005), tax evasion (Dillard & Vinnari, 2017; Klein, 2015; West, 2017) and ineffective accounting education (Ken McPhail, 2009). Despite the wide variety of types and reasons of accounting data misrepresentation, it is necessary to understand the real motives and deep-rooted reasons behind them.

2. Background of the Study
2.1 History and Role of Context
Accounting had actively been practiced since pre-writing Era yet due to social factors conduct of accountants is not uniform. Accounting had existence in Mesopotamian Valley in 3000 B.C. (Alexander, 2002) and Near East in 8000 BC to 3000 BC (Mattessich, 1994). The role of context has been identified as primary factor behind changing nature and magnitude of accounting fraud. Accountants in religious societies avoid deceptions (Dyeng, Mayew, & Williams, 2012). Confucius in 500 BC opined that rather than coercion rules, best governments use people natural rites and morality (Klein, 2015). Corruption, misconduct and frauds grow where society ignores ethics (Tormo-Carbó, Seguí-Mas, & Oltra, 2016). Thus, various contextual factors influence conduct of accountants yet, accounting is very integral for any society.

2.2 General uses of Accounting
Accounting disseminates monetary details regarding liquidity, profitability, effectivity and turnover level of entire (in) tangible, current and fixed resources of entities. It gathers, records, analyzes, interprets and transfers entity’s financial information to its stakeholders (Atrill, McLaney, & Harvey, 2014; Caliyurt, 2008; Duska et al., 2011; Fea, 1973). Mainly accounting shows organizational monetary results and financial position to various parties for their decisions (Andon, Chong, & Roebuck, 2010; Coate & Mitschow, 2015; Earl, 1983; Senate, 1976; Willmott, 1986). Hence, accountants process and disseminate financial details of entities to different interest groups for their decisions.

2.3 Organizational Internal Use of Accounting

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Accurate, timely, updated accounting figures provide base to organizational decisions and ensure fair, efficient and effective use of owners’ wealth by management. Management takes informed organizational decisions based on accounting information (Andon et al., 2010; Earl, 1983; Senate, 1976; Willmott, 1986). Accountancy brings transparency in procurement, usage and bookkeeping of business resources (Andon et al., 2010) and lead to effective functioning of capital market (Palea, 2016) as it reports organizational operational effectiveness and productivity (Coate & Mitschow, 2015). Since its inception, accounting has been integral for ensuring firms’ effective inventory management (Ezzamel, 1997; Stoner, 2011; Yamey, 2000). So, accountants have influential role in organizations where staff and managers rely upon accounting information for quality in their entire decisions still, the same is also valuable for external users.

2.4 External Users of Accounting
All relevant individuals and institutions have legal right to receive organizational accounting figures in time, accurately, sufficiently and uniformly. Accountants collect, assess and supply organizational monetary information to owners, financiers, creditors, customers, and government agencies (Andon et al., 2010; Earl, 1983; Senate, 1976; Willmott, 1986). However, usually it is not so easy for external users to get accounting information of entities for their multifaceted decisions. Accountants concealed real accounting information from their majority stakeholders (Chabrak & Craig, 2013; Cordery, 2015; Klein, 2015; Satava, Caldwell, & Richards, 2006; Sikka, 2009). Even though rewards of all factors of production, public policies and government budgetary decisions are based on accounting information. Various individual, organizational, and government level academic, administrative and managerial decisions are based on accounting (Apostolou, Dorminey, Hassell, & Watson, 2013; Ashraf & Ghani, 2005; Haynes, 2017; Parker, 2012; Shahin, 1996). Still, accountants face social pressures due to which they provide late, incomplete or even fake financial information to external stakeholders which is ethically questionable.

2.6 Practical Situation on Internal Use of Accounting
To get salary rise, secure jobs, and many (il)legal benefits or oblige some users of accounting information, accountants manipulate accounting records. They (un)willingly maneuver organizational accounts for the benefit of their own or selected organizational stakeholders (Duska et al., 2011; Jones, 2011; Low et al., 2008; Rebich, 2013; Smith, 2014) (Nisha, 2016). Accounting objectively reports financial dealings of entities that lacks neutrality (Riccaboni et al., 2006). Generally accountants mold accounting rules for personal gain and consider it their business insight (Sikka & Lehman, 2015). Accountants may show exaggerated or devalued organizational results in their reports. They can exhibit exact, inferior or healthier organizational financial position to accounting information users (Duska et al., 2011). Accounting has been used in recording operations and managing power relationships (Riccaboni et al., 2006). Auditors work as extension of firm’s management rather than representing and serving external stakeholders (Carnegie & Napier, 2010). So, accounting professionals usually work for personal gain at the cost of organization or its stakeholders.

2.7 Practical Situation on External Use of Accounting
External users perceive accountancy as a magical/fraudulent game as accountants provide accounting and audit services simultaneously. Auditors instead working as watch dogs perform the role of beasts. Accountants do not involve external stakeholders especially in reporting process although their engagement may prove very critical for institutions (Kaur & Lodhia, 2018). Accountants manipulate organizational accounts for their own and or organizational benefit (Burns et al., 2015; Duska et al., 2011; Rizvi et al., 2012; Roy, 2017; Sikka & Lehman, 2015; Smith, 2014; Uyar et al., 2015). Accountants take salary for doing nothing and extortion money for processing and providing genuine as well as fake accounting information. Lower management demand extortion or grease money in routine dealings (Alon & Hageman, 2017; Rosid, Evans, & Tran-Nam, 2019), it prevails in many countries though, its public perception is not good (Bowie, 1998). So, to safeguard interest of internal users, accountants provide incomplete, blur, or fake accounting information to various stakeholders due to
various societal pressures.

Social and cultural factors like insufficient income of accountants, tax averse tendency, insecure jobs, acceptability of wealth regardless its legality, ignorance and breaches of ethics compel accountants on crossing ethical boundaries by information hiding, giving late or fake accounting figures. Customer, government regulations, competitors, stakeholders, public and own moral principles determine one’s business conduct (Roy, 2017). One adopts unethical conduct when his peers cross ethical limits (Curtis & Williams, 2014). Same conduct may be (un)acceptable across different societies (Boatright, 2010; Mintz, 2014). Insecure jobs and scarce income of accountants compel them on embezzlements, frauds as they cannot survive in their society without fulfilling community demands. Misusing public office, authority for personal benefit through extortion, bribery, nepotism, fraud, speed money, embezzlement or influence peddling may be termed as corruption (Lukmanjaya, 2019). Accountants’ ethical breaches have led to declining public perception about them who consequently do not work for the benefit of many stakeholders (Low et al., 2008). Currently society expects less ethical conduct from businessmen and resultantly business students become less ethical (Smith, 2014; Tormo-Carbó et al., 2016). Thus, due to multifaceted social and cultural demands from accountants compel them on crossing ethical boundaries mainly for tax evasion.

Entire tax mechanism is dependent on accounting where every government plans revenue and expenditure for every fiscal year. Accountants declare tax liability of their employers and ultimately national revenue (Caliyurt & Crowther, 2006). Government decides various tax rates for different taxpayers based on accounting reports. Individual and organizational taxpayers regularly submit their tax returns along with all supporting accounting records. Accountant hide own, client’s and/or employer’s taxes by manipulating their respective accounting books. Accountants cross ethical limit in their duties when they lose auditor’s independence, and start creative accounting, tax frauds, work for the interest of blue-eyed stakeholders (Jackling, Cooper, Leung, & Dellaportas, 2007). Sometimes accountants prepare multiple sets of accounts books for tax avoidance. Government revenue is directly dependent on collection of taxes which relies on quality of accounting information of public and private sectors in the economy. Accountants conceal financial information, auditor certify fraudulent accounts to evade taxes lead to default in government revenue targets (Dillard & Vinnari, 2017; Fu, 1971; Klein, 2015). Auditors as external users of accounting information in the capacity of checkers for tax hiding. Auditors have passed on the bucket of finding frauds to management (Morales & Sponem, 2017). When tax authorities demand organizational record of revenue and expense, they use the same for calculating their tax liability. Some scholars have termed tax avoidance and tax minimization for deliberate illicit practices (i.e. twisting accounting records) while, tax evasion may be termed as both legal and illegal act, yet scholars and cultures use these terms interchangeably (West, 2017). Although tax fraud is a global issue however, its situation in Pakistan is very alarming especially in indirect taxes (Awan & Hannan, 2014). Problem of tax evasion exists in Pakistan since 1960, nevertheless, during 1998-2004 its rate was more than 11.4 percent of GDP (Ashraf & Ghani, 2005). Secret reserves were created to conceal heavy organizational profits earned yet, in unusual cases it should be acknowledged if it relates to benefit of the firm thus, deviating the conflict of interest among various stakeholders (Nisha, 2016).

2.8 How Ethical Breaches are Motivated for Tax Evasion.
Accounting professionals breach accounting ethics due to various social and cultural pressures. Accountants mainly commit ethical breaches when they are pressurized to present rosy picture of organizational financial health that has globally led to fraudulent cases like Enron and typo etc. (Adkins & Radtke, 2004; Satava et al., 2006). Corruption, misconduct and frauds grow in a community where ethics are perceived as an immaterial societal value (Tormo-Carbó et al., 2016). Organizations would not be able to survive where they ignore societal demands (Carnegie & Napier, 2010; Tsang, 1998). To eliminate unethical accounting practices, strong internal control and external regulatory mechanism are applied. Auditing initiated for higher level of stakeholders’ confidence on organizational accounts and giving them exact financial information. For highly credible and reliable accounting records, auditor
must be independent (Rennie, Kopp, & Lemon, 2014). For boosting ethical conduct, public should demand that ethical conduct from businessmen (Smith, 2014). Misrepresentation in preparation and audit of accounts may be detrimental for society (Satava et al., 2006). Various audit software for error/fraud detection can prove fruitful (Saud, 2012). Initially, in Pakistan a comprehensive training plan for transfer moral standards from private sector to public sector should be suggested for highly moral practice of accountants (Mujtaba & Afza, 2011). Religious inclination of individuals decreases their tendency of taking unethical decisions (Zubairu, 2016).

Individuals and organizations cannot survive and grow in isolation of their environment as they simultaneously affect and get affected from their society. Accountancy comprises of three segments – practice, research and policy all of which should be intertwined (Guthrie & Parker, 2016). Unethical conduct of accountants led to scandals and failures of Enron, WorldCom, Tyco, Xerox, Adelphia Communications, Qwest Communications, Bristol-Myers, HIH insurance group in Australia, Global Crossing, Health South, Ahold in The Netherlands, Vivendi-Universal in France and SK Global in South Korea (Low et al., 2008). Growth of materialism in community motivates people for their limitless earning and ignoring of moral obligations. Researchers agree that manipulating accounts can be motivated for benefitting individual(s) and/or the organization (Burns et al., 2015; Duska et al., 2011; Rizvi et al., 2012; Roy, 2017; Sikka & Lehman, 2015; Smith, 2014; Uyar et al., 2015). Mothers act as the most influential entities in ethical grooming of their children as mother’s lap is the first learning seat for any child. Parents, teachers and elders are responsible for unethical conduct of youth (Gill, 2012) People follow instructions of their parents in their individual and professional affairs. They influence carrier choice of their kids (Nikitin, 2001). Accounting educators ignore ethical training of their students and teach their students only in technical avenues of the subject. Contextual factors influence pedagogical approaches due to which business ethics discussion is considered sensitive in Central Asian region (Setó-Pamies & Papaoikonomou, 2016). Social relations are needed between students and teachers that affect work attitudes and habits (Pan & Perera, 2012).

Accountants rank monetary interests higher than their ethical duties that has led to numerous ethical tragedies around the globe. Ethical scandals of accountants made the declining public perception as the greatest challenge for the profession (Carnegie & Napier, 2010). Academic programs generally provide solution to the societal problems however, in accounting education only technical knowledge is focused and ethical training of students is either totally ignored or touched cosmetically. Although university level accounting teachers should provide solution to community problems through their teachings (Koth, Roberts, & Stoner, 2013). Role of universities can be influential in eliminating AE breaches (Koth et al., 2013; Uysal et al., 2010) since learning of ethics is prerequisite for placement of accounting students as officers (Chunhui Liu, Lee J. Yao, & Hu, 2012). For quality accounting education, accounting professors should enhance critical thinking and thoughts among students through creative curriculum and pedagogies for which connectivity between the social world and accounting topics is required (Chabrak & Craig, 2013). Accounting students ought understand the relationship of society and business for executing their professional duties ethically (Michaluk, 2011). Thus, to control accounting scandals, academicians should ensure their students ethical grooming because accountancy is the backbone in economic dealings of individuals and organizations.

4. Theoretical Framework

Teleological viewpoint does not allow firms to commit social evils (Boatrigh, 2010). For unified business ethics, integrative social contract theory was pioneered where normative judgement is performed through combining empirical results as a part of contractarian procedure (Ma, 2009). The theory emphasizes on expressed or implied understanding among groups and persons for the suitable division and use of property (Donaldson & Preston, 1995). Researchers in studies of moral conduct of businesses and their managers have extensively used the framework of social contract theory (Boatrigh, 2010; Carnegie & Napier, 2010; Dempsey, 2013; Donaldson & Preston, 1995; Ken McPhail, 2009; Lakshmi, 2018; Ma, 2009; Smith, 2014; West, 2017; Williams & Adams, 2013). Despite its effectiveness
in conceptualizing the relationship among members of society, legally enforceable status is the lacking of this theory (West, 2017). This theory considers that organizations will be legitimate and survive when they are run in wider societal values (Williams & Adams, 2013; Carnegie & Napier, 2010). General insight in a community that ethics is an irrelevant social value, led to freedom that caused fraud, corruption and interactive misconducts of public sector top level management (Tormo-Carbó et al., 2016). Accounting teachers should work on curriculum and pedagogies for inculcating critical thoughts in students for which connection between social world and accounting topics is needed (Chabrak & Craig, 2013).

5. Scope of the Study
This study attempts to comprehend empirically social and cultural dimension of AE breaches in Pakistan. For quality education of accounting ethics researchers should examine cultural and regulatory facets (Marzuki, Subramaniam, Cooper, & Dellaportas, 2017). No study in Pakistan has been conducted on corporate social reporting (Yunis, Durrani, & Khan, 2017). Hence, this study will explore social and cultural reasons for accountants’ breaches of AE which result in tax evasion.

6. Research Methodology
6.1 Qualitative Research Methods
This study gears qualitative research method to empirically grasp the socio-cultural facets for accountants’ crossing ethical limits in their professional duties. Inductive research methods effectively measure and identify concepts relating to perceptions of situations and selves (Eisenhardt, Graebner, & Sonenshein, 2016). To study complex human actions and management concepts, qualitative methods of research are required for research in management sciences (Lehnert, Craft, Singh, & Park, 2016; Point, Fendt, & Jonsen, 2017). Qualitative research methodology is opted due to its suitability to the subject area generally and topic specifically. Qualitative data are suitable for examining phenomena that are not properly comprehended (Edmondson & McManus, 2007). More use of qualitative research methods for business ethics research is suggested (Campbell & Cowton, 2015). Qualitative research methods permit thorough exploration of how people observe and tackle the dilemmas that they face (Treviño, den Nieuwenboer, Kreiner, & Bishop, 2014). Thus, considering exploratory nature of the study, its requirements and recommendations from literature, researchers chose qualitative research methods where opting of grounded theory looks most appropriate.

6.2 Grounded Theory
Grounded theory methods have been widely used or have high potential for analyzing ethical questions on individual, organizational, or societal levels (Heugens & Scherer, 2010). Through grounded theory scholars universally comprehend social creations of research participants while, among the modern qualitative methods, GT is perceived to be the most vital and positivist (Kathy Charmaz, 2008). Researchers from numerous disciplines opt for GT due to its more explanatory power and higher degree of dependability for interpretive studies (Camic, Rhodes, & Yardley, 2003). Researchers in social science most widely use GT (Buckley & Waring, 2013; Langley, 1999); Hence, as a highly reliable qualitative approach for research in the discipline of accountancy, researchers opted for GT for which suitable sampling procedure must be applied to achieve research objectives of the study.

6.3 Sampling Procedures
Researchers of the study categorized, accounting education’s important stakeholders into teachers, students, professionals, recruiting agencies, employers and their parents out of which 25 educated, keen and available people were selected. Researchers purposively select respondents because of their understanding of the subject matter (Creswell, 2013; Hughes, 2010). To control scandals, ethical grooming needs multifaceted views, spirits and behaviors about values that direct people what they should do (Mpho, 2017). In GT, process of theory generation is inductive and iterative where growing insights govern inclusions and selection of the next chunk of data or information, by theoretical sampling (Gephart, 2004; Treviño et al., 2014). In GT, sample does not represent population rather it is
selected for theory generation (Hoque, Parker, Covaleski, & Haynes, 2017). Consequently, the sample selected is highly appropriate and pertinent where instead conducting the study in a straight line, iterative ways were used.

6.4 Interviewing
Constructivist GT researchers have flexibility and start data collection before finalizing theoretical framework, where they jointly generate data with their participants. In GT studies data collection starts without any prior theoretical framework, because here theory generates out of the data collected (Saunders, 2011). Because of constructivist GT’s reflexivity and relationalness, scholars and their interviewees co-construct data (Bryant & Charmaz, 2007). Due to flexibility in GT analytic methods, researchers collect data and construct middle-range inductive theories through successive data analysis phases (Kathy Charmaz, 2005). Thus, to co-construct data and generate theory, researcher interviewed 25 respondents whose discussion was properly audio recorded.

To focus on questioning and collect data from respondents, interviews were audio recorded. Audio recording of interviews ensures thorough analysis of the fresh collected data (O’Leary, 2004). Audio recording of pre-organized respondents’ interviews and proper note-taking raise credibility of data (Hoque et al., 2017). Researcher applied note taking for interviews where either voice recording was not possible or allowed (Hoque et al., 2017; Sengupta & Sahay, 2018). To ensure rigorous research, verbatim transcription of interviews was applied (Cowton & Downs, 2015). Saturation is the point where no new concepts arise rather classes and their relationships are sufficiently grounded and confirmed (Dai & Free, 2016; Green & Thorogood, 2013; Lu, 2010). Consequently, data collection through participants interviews continued till saturation where collected data were analyzed accordingly.

7. Data Analysis
7.1 Coding Procedures of Grounded Theory
Manual coding was applied on chunk by chunk basis where data were parallelly collected and analyzed which was hard process as researchers decomposed, abstracted and reorganized data through coding. To organize and code data, qualitative software may be used, though, they are not good choice for data interpretation (Suddaby, 2006). Concurrent data collection and analysis saves researchers from gathering general, rubbish and blurred data and ensure optimum use of their energies (K Charmaz, 1995). Code is a tag given to a certain text to show its meaningfulness for the study while coding differentiates pieces of text to identify, shape and interpret its key characteristics (Hughes, 2010). By using careful read-thoughts of data and line by line coding, certain examples of ordering in the data were identified (Pine & Mazmanian, 2016). GT has certain hard to control downsides yet, it brings consistency in qualitative researches (Hoque et al., 2017). Scholars using GT, decompose, abstract, reorganize data in novel ways (Bhal & Leekha, 2008). Thus, to control problems in GT data were gathered and analyzed parallelly where manual chunk by chunk coding was practiced for every meaningful thought to decompose, abstract and rearrange data in innovative ways for which various versions of coding were available.

Although GT researchers used disagreed over the naming of codes yet, its data analysis comprises of six steps where data is described and compared. Initially, Strauss and Corbin termed codes as open, axial and selective codes whereas, Charmaz labeled them respectively as initial, focused and theoretical codes (Cho & Lee, 2014). GT researchers analyze data by using open, axial and selective codes (Bhal & Leekha, 2008). GT analysis completes in six stages: Open coding, extracting categories, evolving themes, examining the themes linking the facts and theory separation (Cho & Lee, 2014; Harry, Sturges, & Klingner, 2005). Codes explain nature of data nature through description (K Charmaz, 1995). In axial coding researchers seek similarities and differences among the categories that finally reduces the number of categories to a manageable figure (Gioia, Corley, & Hamilton, 2013; Hay & Samra-Fredericks, 2018). So, because of the available analytic freedom of data, researcher opted for Charmaz’s constructivist version of GT which led to concluding findings of the study.
8. Findings
8.1 Accountants Face Ethical Problems
Findings that emerged in this theme exhibit that organizational culture is in the way of proper implementation of accounting ethics. Accountants cross ethical boundaries in execution of their professional duties for avoiding tax due to weak regulatory bodies. Officials commit breach of AE because of ignorance from rules and regulation.

Table 6.1 Theme

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<th>Theme Categories</th>
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<tr>
<td>Ignorance and Unfriendly Organizational Culture Promote AE Breaches for Evading Taxes</td>
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<tr>
<td>1. Organizational culture as barrier to AE</td>
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<td>2. AE breaches for Tax evasion</td>
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<td>3. Ignorance from Rules and Regulations</td>
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Source: Author

8.2 Organizational Culture as Barrier to AE
Findings of this category show that causes of corruption are deep rooted in culture of the context where people accept and feel pride of being expert in corruption. In Khyber Pakhtunkhwa people may be easily persuaded for breaches of accounting ethics where they get its monetary benefit to pay their socially needed expenditures.

Defining corruption as a habit of stealing something even a little time as duty from the organization. Corruption inherits from seniors to juniors. Absenteeism of staff from their workplace during duty hours is one of the top five most prevalent reported corrupt practices across organizations (Onwujekwe et al., 2019). Widespread social insight that accounting ethics are irrelevant societal value, brings freedom usually followed by bribery, embezzlement and interactive misconducts among public officers (Tormo-Carbó et al., 2016). Internal auditors report suspected frauds, bribery, and misappropriations that assists in following regulatory directives and accurate reporting (Klein, 2015). Thus, rejection of ethics as a social value leads to staff’s corruption in their duty timing and financial terms for which strong control mechanism and whistleblowing by auditors are needed.

... every person is involved [in corruption] ranging from lower level to higher level. (R3, L 259) ... I use to do corruption (in duty timing). (R3, L 265) ... this [habit of teachers’ theft in duty hours] will transfer to me. (R3, L270).
... in our society ... corruption is done by everyone ... where everyone has his share. (R5, L 108)

Socio-cultural environment has multidimensional effect in promoting or controlling embezzlement. The acceptability of corruption as a common practice does not allow individuals to follow organizational rules and regulations in silos. They are hard pressed to accept the common culture rather than living in a cocoon.

... reasons of corruption can be personal issues, domestic problems, personal lust and desires (R5, L112)
... a minister ... told in a live interview “Corruption has become so common, where we have also the right to take our share”. (R5, L106)
... problem is that ... employees do corruption ... and expect ... that others will pay tax. (R5, L109)
... If a person [accountant] is unaware of the difference of right and wrong, ... that person will process wrong cases. (R12, L 241)

Pashtun culture and its requirements compel individuals to spend beyond earnings and find any illegal
avenues to fulfill their needs. Moral rules variate over time, across cultures, religions and political structures (Klein, 2015; Young, 2013). Business ethics in Western society mainly developed from spiritual values that recognized as organizational regulations for running and controlling activities of businessmen (Zhu & Zhu, 2016). For ethical conduct of professionals society must improve collective views, manners and feeling about ethics (Mpho, 2017). Spanish In accounting education main emphasis was on technical aspects where the desire of linking them to the actual world generally and social world specifically was missing (Carmona, 2013). Considering rise in corporate scandals McPhail recommended inculcation of ethics in management curriculum (Carmona, 2013). A comprehensive training plan is recommended for more ethical practice where moral values will transmit to public sector from private sector in Pakistan (Mujtaba & Afza, 2011). Hence, global disagreement over moral rules and relaxing values declined morals, beliefs and lifestyles in Pashtun culture where accountants start embezzlement to earn beyond legal means for fulfilling their societal obligations.

... corruption is ... started from some compulsion ... from customs and ... environment. (R16, L78)
... we invest in home in the form of buildings, cloths and we feel the difference in our cloths, weddings, educational expenditures and in medication or treatment and the expenditure of our family relationship. (R16, L81)

Society’s indifferent behavior to wealth earned through corruption in culture and society of Pashtuns. Less societal focus on moral values led to unethical conduct of accountants that legitimised and triggered embezzlement. Slow moment of ethics from absolute to relative footings caused unethical conduct of accountants (Young, 2013). It is illogical to teach moral values, critical thinking and relativism to students in their accounting classes whereas in finance and management modules they are taught shareholders’ wealth maximization (Carmona, 2013). Corruption exists predominantly in Pakistan, India and Bangladesh due to multifaceted political and economic connections between patrons and clients (Azmat & Samaratunge, 2009). International literature highlights that weaknesses in accounting education and the active role of accountants promoted their capitalist mindset that has led to the existing alarming status of information hiding from stakeholders. Shareholder theory considers stockholders wealth maximization as the only legal and moral obligation of firm management (Klein, 2015). Controversy exists among researchers for the last century on the point whether capitalism is (im)moral; nevertheless, the role of accounting has regularly been influential for capitalism (Low et al., 2008). In stock market-based capitalism those firms remain effective who hide accounting information from their stakeholders (Walker, 2010). Almost fifty years ago, Pakistan was an exemplary nation however, this pace was lost due to unethical conduct of accountants. Despite statutory requirement of implementing accounting standards in Pakistan, such mandatory compliance is not constantly ensured (Hossain & Nurunnabi, 2011). Pakistani corporate sector has not internalized corporate social responsibility rather some external factors generally enforce CSR upon them (Yunis et al., 2017). During 1957-68 Pakistan emerged as the most remarkable case of nation and state building since World War II however, due to lack of social justice, pace of the economic growth could not retained (Ashraf & Ghani, 2005). Thus, the trend of society to respect wealth rather than characters gives courage to accountants for frauds.

If everyone is telling him that there should be money and respect belongs to money ... he will concentrate on money and ... he will forget honesty trustworthiness and fairness. (R30, L 235)
... Now, the point of wealth’s legitimacy or illegitimacy is side lined and those persons who have more money are acceptable to society and given value. (R9, L. 133).

Environment role models like parents, household and peer pressure shape one’s personality regarding response to corruption. Parents, teachers, social interactive customs and superiors have decisive influence on accountants (un)ethical professional choices (Adkins & Radtke, 2004; Gill, 2012; Melé, 2005; Jackling & Keneley, 2009). Individuals’ personal virtues have very less or no influence on their conduct when they face pressure from their peers (Caldwell, 2010; Chandler, 2017; McGuire, Omer, &
Sharp, 2012; Solomon, 2003). World flourishes when people follow collective ethical and cultural principles (Klein, 2015). Accounting educators should promote critical rational in students, bring creativity in curricula and pedagogies for which they should link accounting with social world (Chabrak & Craig, 2013). Associates of the American Institute of Certified Public Accountants (AICPA) enthusiastically accept the duty of ethical and professional conduct (Bealman, 2013). Pakistani corporate sector and researchers have overlooked CSR activities (Yunis et al., 2017). Hence, parents, teachers, family members, colleagues and colleagues should indoctrinate ethical awareness and sensitivity among accountants that will bring justice and curb corruption in society.

... corruption is a mindset and it is quite common practice in our society that since childhood a person is corrupt. ... In it first is person’s home environment, next ... when a person goes to school, college and university, there is also the same environment in various forms. (R12, L. 128)

Ethics as a subject should properly be included in curriculum of colleges and universities ... many such courses are taught, which are totally irrelevant to our [accounting] subject. (R11, L448).

... everyone must know about his responsibility either it is on school level, college level, university level and then he should share information with honesty to achieve good results. (R15, L165).

Scarce nurture, defective education and unconducive organizational environment legitimize illegal incomes. Everyone knows that all members of society call for their legitimate part in corruption.

8.3 AE Breaches for Tax Evasion

In this category it is emerged through analysis of the respondents interviews that accountants in many roles assist in tax evasion by manipulating accounts. Tax evasion is disastrous for every nation. Defective tax regulatory system and desire for money are the causes of tax evasion which can be controlled through academic and regulatory remedies.

Participants of the study narrated many actors in and reasons of tax evasion. Accountants breach professional ethical boundaries for evading taxes. Accountants manipulate organizational accounts for tax evasion (Klein, 2015; West, 2017) while audit firms assist in evading taxes of their clients (Lakshmi, 2018). Taxes are avoided in all societies where taxes are imposed on public and even Babylonians society witnessed tax evasion (Klein, 2015). Due to insecure job structure accountants are compelled to manipulate firms’ accounts for evading taxes. CAs parallel services of preparing and auditing their clients’ accounts for tax hiding. Tax policy having high tax rates, no advantage for taxpayers, undocumented economy, distrust of tax authorities on tax returns of (un)fair firms, unproductive employees of regulatory system result in black money and tax evasion that is detrimental for exchequer. Russia is on the top of the list in evading taxes (Shawver & Miller, 2017). It is high time for accounting researchers to pressurize policy makers for designing of effective and efficient policies (Palea, 2016).

Every person registers himself online ... receive online notice or email for submitting his return. ... he will declare all his bank accounts and their deposits and withdrawals, income, expenditure etc. He would not be able to do tax evasion. (R12, L288)

... CA firms are built for the for purpose to assist people in tax evasion. (R11, L. 249)

... they [CAs] aid with tax evasion ... this is a very great disservice to the profession. (R14, L8)

Tax avoidance should be viewed as a crime ... be justified to people that why they should pay tax. (R11, L. 174)

... the largest medicine distribution of Peshawar ... maintain two types of books of accounts: one for themselves and their partners and the other of public and tax. (R11, L478). ... where they avoid everything, also get tax benefit and show to public that they ... work with nominal service passion. (R11, L.481) ... there was a difference of almost Rs. 40 billion in profit of both sets of books. (R11, L. 485) ... it was legal money but they had transferred it to robbery due to tax avoidance. (R11, L. 487)

... the tax payment culture in Pakistan is very weak; people do not pay taxes. From ... government, employees, their taxes are deducted, while most of the business class people do not pay their taxes. (R13,
... by nature humans are greedy and want to maximize their profit ... it [tax] must be spent by state on tax payers ... in Pakistan ... people do not get facilities due to which people are not willing to pay tax ... their taxes are not properly utilized. (R13, L97)
... basic duties of state like: health, education, infrastructure, law and order situation are if focused and provided to public then people will pay taxes. (R13, L 107)
... It is needed that current resources be utilized properly; ... If public is not given something, then how they will pay taxes? (R13, L 114)

The main reason for that [duplication of accounts books] is tax evasion. (R.30, L. 166).

Taxes are mostly avoided for money saving. (R29, L65).
Most of the citizens of this country are low salaried and receive less facilities while, they want high living standards that’s why people do corruption. (R26, L. 48)

... People pay taxes to government for financing infrastructure, roads, health facilities, ensuring law and order situation and political stability ... neither complete infrastructure, nor health facilities are uniformly given to public and people hire private guards for their safety. (R29, L65).

Why NAB and this like departments are introduced because the people are not sincere and not reporting the actual values. (R.16, L.65).
Similarly, NAB investigates corruption cases based on accounting information. (R.13, L. 62).
... either during the planning process when they have set these goals, they have committed mistakes, or based on their planning grounds, by default there is some deficiency or weakness in the data or secondly that can be pragmatic or unrealistic, I think these can be its main reasons that unrealistic goals are determined(R4, L. 329)

The problem of black money prevails due to AE breaches here [reporting function of accounting]. (R3, L84). Economy will go down, if tax will not be collected properly. (R3, L405)

The participants came up with many valuable recommendations for controlling evasion of taxes since, currently only salaried class pay taxes. Tax system can only improve if bribery is eliminated among FBR staff. Government should ensure firms’ registration and documentation of overall economy for making tax evasion impossible. Curricula of accounting programs should be enriched with AE. Judicial inefficiencies, weak law enforcement and lack of investor protection can better explain financial reporting practices in Pakistan (Ashraf & Ghani, 2005). Government should ensure transparent collection disbursement of taxes through effective internal control and strict regulations for taxation. For tax fairness and controlling of tax evasion it should be obligatory for companies to adapt standardized accounting plan (Caria & Rodrigues, 2014).

... sometimes we link manager promotion or perks to the output which if not legally feasible within the legal framework because, humanly or due to lack of ethical education in accounting, it is a natural fact that most of the accountants will go towards unethical issues. (R4, L337) ... Then definitely tendency and aptitude towards unethical practices raise. (R4, L. 355)
System (of FBR) is not functional properly because of corruption. (R26, L. 45)
All salaried persons pay taxes as it is withheld from their salaries. (R.30, L.58).
Tax is not collected fairly from all persons because taxes are deducted from salaried persons while business sector avoid taxes with whom FBR staff has setting.(R12, L276)
... industrialists avoid taxes through FBR employees and due to faulty tax system. (R29, L70).
The registered people pay the tax and non-registered people do not pay the tax. (R33, L42).
Tax system should be made transparent by keeping a check of FBR employees. (R29, L77).
Tax law should be simplified so that tax payers may personally file returns. (R29, L78).
... The government should facilitate the tax collectors and take some hard actions to insure tax collection. (R33, L47).

Unethical accountants, defective laws and their discriminatory application and lack of benefit of taxes for taxpayers results in tax evasion. Tax evasion will exist till eradication of corruption among FBR staff. Working on academia and lawmakers can also help in controlling tax evasion.

8.4 Ignorance from Rules and Regulations
In this category emerging findings show that officials unknowingly ask accountants for unethical accounting practices. Mindfulness of AE influences conduct of accountants. Current university level accounting education in the context of the study has many weaknesses.

Respondents of the study linked unethical accounting practices ignorance and narrated on its reasons and academic solutions. Existence of corruption show failure of (in)formal institutions of ethical education (Sikka & Lehman, 2015). Executives and accountants ignorantly breach AE while, persons aware of AE do not bypass AE. Professionally and ethically university accounting graduates are quite weak for which incorporation of AE in curriculum is suggested. Ineffective accounting education results in ethical breaches for tax evasion (Ken McPhail, 2009).

... society should be educated about the consequences of not following ethics ... For this both public and private institutions will have to take stand. (R.11, L. 236).
... CSS is such an exam whose CSPs mostly come to our [accountancy] cadre though, a bit irrelevant. (R2, L152). When these persons upon successful Commission or CSS exam join our department as officers, they even do not know what to do? (R2, L159).

... he [poor] cannot get education and uneducated persons have ethical problems. (R27, L 51).

Accountant aware of AE ... will, abide by AE otherwise he will give loss to owner. (R21, L112).
... The government should aware, check and force the people about tax payment. (R33, L42).

9. Conclusion
In answer to the research question researchers found that pride of people on AE breaches have legitimized bypassing accounting practices. Weak regulatory system, flawed organizational targets and structure trigger greed among accountants who consequently breach AE. Illiteracy of AE leads to weak regulations that resultantly increase manipulation of accounts among accountants. To hide heavy profits earned from wars, undisclosed funds were created nevertheless, it should be recognized in emergency if it is beneficial for business (Nisha, 2016). Thus, ignorance of AE encourages its breaches that has multifaceted repercussions for countless stakeholders in a society.

Ignorance of AE influences societal aspects, performance of regulatory system, unfair HR policies and weak regulations where accountants easily breach AE (un)willingly. Unethical accounting practices weaken regulatory mechanism and encourage bribery among accountants. Accountants in their multifaceted roles support evasion of personal and organizational taxes. Accounting professionals sacrifice their ease and owners’ heavy investment on electronic accounting system because of higher degree of transparency that is unethical. AE breaches decrease efficiency of accounting professionals, their stakeholders which is disastrous at micro and macro levels.

10. Recommendations
Commendations of the study may be categorized into four sections. Valued, practicable and realistic
social involvements are recommended. Numerous academic suggestions are given for uplifting teaching and training of accountants. Operative regulatory suggestions are endorsed for accounting professionals who disseminate financial information for decision making to all stakeholders. Finally, legislative suggestions are given for controlling ethical breaches by accountants generally and tax evasion especially.

10.1 Societal Level Interventions
Societal role models like parents, teachers, family and peer groups should ensure upbringing of accounting students and professionals by indoctrinating moral awareness and sensitivity through practical implementation of ethics in their own lives.

Staff corruption in duty timing and financial terms can control through acceptance of ethics as a social value and avoiding indifferent behavior of people to (il)legal earnings (without) corruption. High focus of Pashtun society on moral values will eradicate embezzlement through its illegitimacy. There should be unity among various societies over ethical rules. Simplicity, beliefs and morals should be decisive societal rules and strictly followed.

10.2 Academic Endorsements
For elimination of accountants’ information hiding and capitalist mindset, effective working on existing problems of accounting education like weaknesses in curricula, delivery and examination system are suggested. Accounting academicians must enrich curricula with accounting ethics and teach the same to their students who will resultant adopt ethical conduct in their prospective professional roles. Accounting graduates should be professionally and ethically trained otherwise they will (un)knowingly breach accounting ethics.

10.3 Regulatory Suggestions
Regulations should be updated for restraining accountants from breaching accounting ethics. For elimination of corruption regulations should be strengthened through effective control mechanism and whistleblowing auditors. For higher national economic growth ethical conduct of accountants in their multifaceted roles should be ensured. For eradication of unlawful earnings working environment for accountants should conducive for implementation of their legal and ethical duties. Registration of all businesses and elimination of bribing practices are recommended for implementation of taxes.

10.4 Statutory Suggestions
Reforms in tax laws are recommended for elimination of tax evasion. Realistic tax policy, reasonable tax rates and benefits of taxes for taxpayers, economy’s documentation, FBR staff’s dutifulness and considering firms’ returns filed to regulatory bodies are suggested for elimination of black money and tax evasion that will consequently improve national exchequer. Government should ensure legislation and uniform implementation of law for fair collection and disbursement of taxes. Overall HR policies across the nation should be revised where appointment and promotion of right and relevant person is ensured in all organizations.

11. Future Research Directions
Future researchers should focus on curriculum of accounting programs at university level to understand whether accounting teachers ensure its delivery in the effective way or not and advise possible improvements in curriculum as well as its delivery to students. Similarly, potential researchers should examine teachers’ training programs for coaching newly developed curricula. Comprehensive studies on religious aspects in training and practice of accounting generally and AE specifically may prove very productive. Prospective scholars should study the role of dominant stakeholders like universities in education of AE. Future research is endorsed for finding effective ways of computerizing manual system of accounting and finance. Researchers in the area may quantitatively test results of the study.
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The Nexus of Currency Fluctuations on Imports and Exports of Pakistan

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ARTICLE DETAILS

ABSTRACT
Imports and exports are fulfilling the economic requirements and therefore in both productive ways it is highly demanding and efforts oriented to focus on the proper and effective ways of tackling these factors. Its representing that how Pakistani rupees value effects official debt, imports and exports an also study how it effects stock exchange/market. This research is supportive to examine the fluctuating factors and its role importantly for the development of drawing a clear and supportive economically benefiting policy for the wealth and progression in the fiscal and economic years. This research study was conducted to examine the impacts of currency fluctuations during the time period 2000 to 2010 (11 years) and these years have proved with some interested findings which are compatible with ground realities and positions and facts. The research study found that Pakistan’s exports have significantly increased with the increasing devaluation or declining the monitory value of the Pakistan’s currency. In addition it is also found explicitly the impact of currency fluctuation is positive and considerable on the exports in Pakistan during the time period 2000 to 2010 (11 years) while the impact on currency fluctuations on import is explicitly and implicitly found non related and insignificant. Therefore these findings are proving that imports are not related and found insignificant in relation with currency while the roles with exports are found quite supportive and recognizable. In this time series data OLS model in form of single linear regression has been applied to examine the influential impacts and recognizable factors for the research objectives.

Keywords: Import, Export, Currency Fluctuation, Exchange rate, Stock Exchange, Pakistan.

JEL Classification: M40, M48

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1. Introduction
Currency rate stability and fluctuations both are reflecting the economic stability and instability in the market which are supportive for the valuable operations and growth towards the economic benefits of the firms. There are numerous possibilities of non compliance of the currency values towards the desired
economic goals of the firms and therefore complex evaluative and significant assessments are necessary for the advancement and proactive measurement of currency values in the economic cycles (S. Bader, 2006). Devaluation is normally attempted as a method for redressing a deficiency to be decided of stability of expenses. As clear that some researchers are concerning that enervating the estimation of money can be really useful for the financial system in view that an extra fragile foreign money will guide trades, which thusly will carry employability and this can set in economic improvement and guide the financial system growth (Rahman, S. and Serletis, A., 2009). Devaluation of money has turned out to be extremely regular in the present age. Nations confronting monetary strains because of negative financial conditions have no option however to cheapen its money in order to push up its fares profit and at the same time to diminish imports. Such nations for the most part formally decline the estimation of their money in connection to gold just as other remote monetary standards. Determined antagonistic exchange equilibrium and disequilibrium in balance of payment are the first driver, that propels a nation to debase its currency. Real elements of exchange balance are exports and imports of a nation. Unfriendly exchange balance is usually the consequence of looseness in exchange distinction with imports.

Aizenman (2007) had given his view with respect to the effect of save property in limiting the genuine exchange rate instability in creating nations in case of exogenous terms of trade dumbfounds. Further explain that higher genuine conversion standard unpredictability is related with lower development, this infers higher reserves may advance development ultimately by lessening exchanges’ measures instability. Aside from their effect on development, more elevated amount of assets is additionally connected with smoother capital record alteration showing their job in buffering value stunts. The exchange rates and profitability appear to conclusive in clarifying the differential business share for trades. The significance of the genuine powerful exchange scale for tariffs and trades of fabricated products in Africa has been shown by Ndulu and Semboja (1995), who discovered that the genuine compelling exchange rate affects fabricating exports. Among the components thought to impact send out intensity, is the genuine powerful exchange rate. Balassa (1990) set up a connection between the genuine successful exchange rates and exports of industrial products.

2. Background of Study
Imports and exports are fulfilling the economic requirements and therefore in both productive ways it is highly demanding and efforts oriented to focus on the proper and effective ways of tackling these factors. Therefore in light of the effective financial methodological ways the role of the currency fluctuation do possess strong meanings which in turn influence positive returns on the economic wealth and economic downfall in fiscal years.

Variations in different spheres and different modes are non effective to conclude results effectively although these are positively contributive; the reason is these influential and effective for better outcomes in both long and short runs which are recognized for the economic growth and economic development. Currency fluctuations in this connection are effective in this connection to examine for the financial position value of the currency and economic supportive outcomes. Currency imports are significant to fulfill the requirements of the current needs deficiencies and important.

3. Study Objectives
Study objectives are to know about role of currency devaluation on Pakistan’s exports, imports and government concerns. Its representing that how Pakistani rupees value effects official debt, imports and exports an also study how it effects stock exchange/market. This research is supportive to examine the fluctuating factors and its role importantly for the development of drawing a clear and supportive economically benefiting policy for the wealth and progression in the fiscal and economic years. There are numerous and expandable growing chances available to pursue toward and effective growing outline for wealth management and development. Fluctuations are evidently found and these fluctuations do found in phases of times while significant factor is measure this fluctuation and proactively involved
factor for the better consequences in form shaping right strategic approach for economic surplus. Therefore this research work is importantly considered in the entire process of the research which means currency fluctuations variations are truly considerable for the economic benefits and economic benefits are possible recorded through proper investigatory means.

4. Study Limitations
Following are the limitations of the study which is being faced in accumulation of the report:
- The vast majority of the data is undocumented.
- Concentrated on 2000 to 2010 just which is exceptionally unpredictable.
- No direct data accessibility.
- For the most part reliable on correct and ideal date with precisely right references

5. Literature Review
5.1 Pakistan Currency Fluctuation
Pakistan’s economy is composed of a variety of industries including chemicals, textiles, sugar, food processing, agriculture and many more. Being the world’s 25th largest economy, Pakistan is currently on the verge of getting default. The economy is suffered a lot due to internal political clashes, a rapid growth in population, FDI and terrible confrontation with neighboring India. Nevertheless, IMF-endorsed government strategies, supported by FDI and documented approaches to international markets, have made sturdy macroeconomic healing within the most up-to-date decade. Important macroeconomic revolution since 2000, most quite at privatization of the Banking sectors have helped the monetary system. Pakistan has seen a developing social class population from that time forward and poverty line has reduced by 10% since 2001 (Ragoobur, V., and Emamdy, A. (2011). GDP development, driven by will increase in the modern as well as industrial sector, in 2004-06 it’s in the range of 6-8% limit. In the year 2005, the World Bank entitled Pakistan the most effective reformer in the regions and within the best ten reformers worldwide.

The ICT-Islamabad has persistently brought improvement defrayal in previous couple of years, as well as a 52% real rise within the financial/budget allocation for advancement in fiscal year 2007, an elementary advance toward shift the expansive under development of its societal region. The economic/financial shortage - the consequence of continually low tax accumulation and rise in spending, including recreation prices from the staggering geographical region AJK quake in 2005 was reasonable.

Improvement in urban regions of Pakistan has stayed high however is low in rust regions. The actual conversion rates estimates the money power while purchasing the external goods, in other words, its buying control over external products. The investigations of Lucas (1993), Biggs, Shah and Srivasta (1995), Bigsten et al. (1997), de Melo and Robinson (1990) and Edwards (1997), show observationally and hypothetically, that the exports of readymade items beneficially affect all factor of productivity. The currency interchange scale and efficiency appear to unequivocal in clarifying the differential stocks of the overall industry for exports and exports’ goods. The significance of the genuine viable rates of exchange for exports of manufactured products in African countries has been exhibited by Ndulu and Semboja (1995), who found that the genuine compelling exchange rates impacts on exporting goods. The actual and significant currency exchange rates’ are the factors which impact competitiveness of exports goods. Balassa (1990) built up a relationship between the produced merchandise and genuine currency interchange rates. Inflation; a severe risk to the financial system, reached to over 9% in 2005 which dropped to 7.9% in 2006. After global rise in petroleum prices in 2008, inflation in Pakistan raised to as high as 25%. The states bank is seeking after more tightly fiscal arrangement while endeavoring to safeguard development. Foreign exchange reserves holds are supported by stable employees’ remittances, yet a developing current record shortage - driven by huge exchange difference as import increased surpasses export extension - could draw down reserve and reduce gross domestic product development in the medium terms.
In the beginning of year 2008, the financial position of Pakistan has taken an emotional decline. The War against Terrorism have made instability and insecurity which leads to decline in FDIs from eight billion dollars to three and half billion dollars ($8 to $3.5 B) for that financial period. Instantaneously, the rise up has restricted immense capital departure from Pakistan to the Arabs countries. Joined with excessive global object costs, the double impact has greatly surprised Pakistan's economy, with increasing alternate deficiencies, excessive enlargement and inflation withinside the estimation of the Rupee, which has tumbled from 90-1 USD to extra than 130s-1 USD in more than one months. Without precedent for years, it might need to look for outside subsidizing as Equalization of remittances bolster. Thusly, S & P introduced down Pakistan's overseas foreign money debt score to CCC-further to from B, just a few ratings over a measurement that might show default. Pakistan's neighborhood foreign money debt score become introduced down to (B-) from (BB-). Credit agency Moody's investor carrier reduce its mindset towards Pakistan's debt to terrible from strong due to political vulnerability, but it saved up the country's comparing at B2. The fee of protection in opposition to a default in Pakistan's independent debt exchanges at 1800 points, as in step with its multiyear credit score default exchange, a measurement that indicates monetary specialists consider the country is as of now in or will earlier than lengthy be in default.

The study of Akhter and Hilton (1984) inspected the bidirectional exchange between United State of America and West Germany. The researchers discovered the exchange scale unpredictability has a huge negative influence on the imports and exports of two nations. Be that as it may, the unpredictability of conversion standard has been estimated by the standard deviation of successful trade rates. Gotur (1985) rejected the outcomes of Akhter and Hilton (1984). He included the countries in the Akhter and Hilton (1984) models are Japan, France, United Kingdom and expanding the example time frame and the proportions of exchange rates dangers. He didn't notice any critical connection between exchange rate instability and amount of exchange on the two-sided exchange streams. His outcomes is indistinguishable to IMF (1984) ponder on this issue. Chowdhury (1993) explored the effect of exchange rate unpredictability on the exchange streams of the G-7 nations in setting of a multivariate model inaccuracy adjustment. They discovered that the exchange rate unpredictability has a noteworthy negative effect on the volume of exports in every one of the G-7 nations. Baak, Mahmoud, and Vixathethep (2002) researched the effect of exchange rate uncertainty on foreign trade in four East Asians nations (South Korea, Thailand, Singapore, and Hong Kong). Their outcomes demonstrated that exchange rate instability negatively affects exports in as side by side i.e. the short run and long run too.

5.2 Imports of Pakistan In Connection with Currency Fluctuation

Egert et al. examined the direct and indirect effect of exchange rate unpredictability by means of variations in exchange rate routines on the trade execution. Lourenco examined the global picture of exchange rate of 33 progressed and rising financial firms. Hussain et al. examined the stability and execution of substitute exchange rate of all IMF associated nations. Arize (1996) likewise suggested that negative substantial association between exchange rate volatility and imports and exports exists over the short run and long run. De Grauwe (1988) proposed that if the creation of model is precise, at that point of association between exchange rate instability and trade ought to be sure and significant. Ortega and Giovanni (2005) proposed experimentally the effect of trade cost on genuine exchange rate instability.

Freund and Pierola (2008) broke down more than ninety events of fabricated "export floods" and come to the point that trade floods in developing (yet not in developed) nations were related with vast genuine exchange rate downgrades that left exchange standard underestimated and with the coming of new export items and goals. Aizenman (2007) with respect to the effect of reserves in reducing the genuine exchange rate unpredictability in raising nations in case of exogenous terms of trade stuns. Given that higher genuine exchange standard instability is related with lower development, this infers higher reserves may advance development in indirect way by decreasing exchange rate unpredictability. Aside from their effect on development, larger amount of reserves is additionally associated with smoother capital record adjustments showing their job in buffering price staggers. Zhang (2000) says that price
increase happens at last because of devaluing of the money. Virgil (2002) researched that the long run connection between Turkey’s genuine exports and its exchange rate insubstantiality is negative yet measurably critical for Germany, France and the American. Smith (1999) expressed that the examination demonstrates that an expansion in exchange rate instability is set out alongside a decrease in universal relationships amongst bound and securities exchange.

5.3 Exports of Pakistani Products in Connection with Currency Fluctuations
A large number of examinations have been researched the significant factors of import demand role for Least Developing Countries just as Developing Countries. In the global research standard, the ordinarily utilized import demand capacities has been examined in a wide range of research activities for a very long while, including Khan (1974) for fifteen rising nations, according to Arize and Afifi (1987) for thirty rising nations, Bahmani-Oskooee (1998) for 6 LDCs, and Sinha (2001) for 5 Asian countries. In addition, there have additionally been numerous investigations on particular nations, for example, Sinha (1997b) for Thailand, Tang (2002) and Sinha (1996) for India, Tang and Mohammad (2000) for Malaysia, Dutta and Ahmad (1999) for Bangladesh Rajal et al. (2000) for Nepal. The past examinations for Pakistan, for example, Sarmad (1989) evaluated import demand role for Pakistan amid the period 1959-60 to 1985-86 utilizing a general methodology and did not manage the issue of stationarity of the variables. Sinha (1997a) evaluated import demand role for Pakistan, performed stationarity and residual based co incorporation system created by Engle Granger (1987) on yearly time series data for the 1970-1993 era. Afzal (2001) evaluated import demand role for Pakistan utilizing the model of simultaneous equation, by utilizing (OLS) and Two Phase Least Square (2SLS) methods presenting the duration from 1960 to 1999. In any case, Afzal (2001) likewise does not tried for the stationary of the information. Besides, the prior investigations for Pakistan utilized little example of yearly time series data and did not utilized instability of exchange rate as a determinant of import demands. There are just couple of studies, evaluated exactly import demands role for Pakistan, utilizing respective exchange data, for example, Malik and Akhtar (2000) assessed reciprocal cost and income impacts on Pakistan’s trading performance with its four noteworthy exchanging associates i.e. United State of America, United Kingdom, Japan and Germany. The three phase least square strategy was utilized quarterly data for the period 1982-1Q to 1996-4Q. Their outcomes show income versatility of imports from Japan and United State of America are side by side.

Khan (1974),and Naqvi et al. (1983), examined the performance of Pakistani imports and the same was also examined by Sarmad and Mahmood (1985), and Afzal (2001) and Hasan and Khan (1994). Neither of these papers has analyzed the time series properties, which is very charming because of the utilization of time series data. The aim of this paper is to think about the genuine and compelling exchange rate response of imports demands in Pakistan for the period 1960 to 2003 utilizing both traditional and time series econometrics method that may be of some support to detail a sensible exchange rate strategy.

6. Methodology
6.1 Research Model
The work proceeded through examining the proposed research theoretical framework and is based on the following mentioned research model
Import / Export = Function of (Currency Fluctuation)
Model Import = Function (Currency Fluctuation)
Import = B0 + B1 (Currency Fluctuation)
Model Export = Function (Currency Fluctuation)
Export = B0 + B1 (Currency Fluctuation)

6.2 Research Hypothesis
H0a There is no significant relationship between currency fluctuations and imports of Pakistan
H1a There is significant relationship between currency fluctuations and imports of Pakistan
H0b There is no relationship between currency fluctuations and exports of Pakistan
H₁b There is significant relationship between currency fluctuations and exports of Pakistan. The research hypotheses are based on the proposed research theoretical framework that is planned to be tested to examine its fluctuating position in the time series data from 2000 to 2010.

### 6.3 Sampling Approach
The study aims achieved with the help of proposed research topic and inter connected stepwise approach. For this purpose primary and secondary data examined.

### 6.4 Data Collection Tools
There are varieties of tools and sources for primary data collection that are supportive the collection of the primary data and secondary data. Among these available options, the one was preferably webs source which was mainly important for the study.

### 7. Results and Discussions
The main process for the study has been initiated through integrated steps and these were found to pursue the research work through properly defined format. Therefore, all aspects are focused on the realistic outcomes and it based for the overall research objective and hypothesis testing to conclude the required outcomes properly. The main results are structured and different into different parts to properly explain and understand the result based activities in this whole process.

#### Table 4.1 Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Exchange Rates</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange Rates</td>
<td>1</td>
<td>-.432</td>
<td>.708*</td>
</tr>
<tr>
<td>Imports</td>
<td>-.432</td>
<td>1</td>
<td>-.592</td>
</tr>
<tr>
<td>Exports</td>
<td>.708*</td>
<td>-.592</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.05 level (2-tailed) Pearson Correlations

Table 4.1 is explaining the correlation between Exchange for the time period of ten years and imports and exports in Pakistan. It is found that exchange rate that is showing the fluctuations in the time period of ten years in currency of Pakistan is proved negatively related with imported but with insignificant value of P that is showing the confidence interval. The confidence interval is although not acceptable, but closer to the required level and on the basis of this fact it is found that imports are negatively correlated with value of - 0.432 this factor is very much low with unsatisfactory level of confidence therefore to consider it for the acceptance of hypothesis it won’t be that much supportive to accept alternative hypothesis for influential relationship of currency fluctuations towards imports in Pakistan.

In addition the matrix correlation is stating that currency fluctuation influence the exports in Pakistan the value is found that 0.708 with level of significance 0.015 which means a positive correlation and acceptance for level of significance. Therefore to influence and mainly consider the main fact is found that the level of significance signifies that exports are positively improved in the time period of 2000 to 2010 which are 11 years in this 11 years time period although the currency value is declined comparatively than the dollars or in the international market but the impact is found supportive for the positive outcomes of the exports and value development.

The value for the export is exceeding with positive outcomes and it is found that there are many possible reasons behind this fact the currency value has been declined entire in the time period of 11 years and this improved the demands for the Pakistan goods in the international market with lower price. The lower price itself is found productive towards the impact for the good well and demands in the recent
times therefore the role of exports with fluctuating value of the Pakistan’s monetary value is supportive towards the better outcomes and better consequences.

These all and related structural activities are supportive for the acceptance of alternative hypothesis of the research currency fluctuations and exporting value of the research study.

Table 4.2 Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T-Test</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Exchange Rates</td>
<td>-7.583E8</td>
<td>5.276E8</td>
<td>-.432</td>
<td>-1.437</td>
</tr>
</tbody>
</table>

a. Dependent Variable Imports

Table 4.2 explaining the significant role of the regression of the independent variable Exchange which is refereeing the 11 years currency fluctuations in Pakistan. It is seemed that there is a negative impact of imports found in Pakistan due the fluctuations in value of currency comparatively Pakistani currency has been declined and in the entire period of time the role of the imports has negatively been found but the significant and influential point is the significance level and t-test value which are found non supportive and unacceptable. The value of t-test is found non supportive with only reason that t-test value is below the standard value of the role of thumb which is standard of 2.00 and now this value is getting below that standard value is stating that the standard error figure is found higher in this relation and this situation.

These findings are supportive for the correspondence and acceptance of H₀ hypothesis and therefore the impact is found zero. Although this impact is negative but the hypothesis is not supported by the empirical evidences and which means non compliance and non supportive for the entire process the level of significance is found above the maximum limit of 0.10 and now it is 0.18 which means 82 percent is confidence level and this means this 82 percent confidence level is not enough to proceed and prove it for the acceptance level.

Table 4.3 Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change F Change Sig. F Change</td>
</tr>
<tr>
<td>1</td>
<td>0.432</td>
<td>.187</td>
<td>0.096</td>
<td>1.70410E10</td>
</tr>
</tbody>
</table>

a. Predictors (Constant), Exchange Rates

Table 4.3 explaining the role of R and R-Square, F-test and its significance level. The findings proved that is correlation exist between the imports and currency fluctuations which is not impressive and not influential at all. The value of R Square is only 18.7 percent so the variability in the dependent variable is only 18.7 percent while the rest 81.3 percent variability is due to other variables in the imports in Pakistan in the time period of 2000 to 2010 which are 11 years.

As for the value of F-test is concern it is found unacceptable at this level due to the lower value of F-test which 2.066 and the standard value is 4.00 this means the standard value shall be met or exceeded because to this is providing support for the acceptance of the model now to analyze all this it
considerable that this figure is not acceptable at this level and therefore the impact is non contributive.

Table 4.4 Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T-Test</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-9.819E9</td>
<td>9.352E9</td>
<td>-1.050</td>
<td>0.321</td>
</tr>
<tr>
<td>Exchange Rates</td>
<td>4.337E8</td>
<td>1.440E8</td>
<td>0.708</td>
<td>3.011</td>
</tr>
<tr>
<td>a. Dependent Variable Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4 explaining the regression impact of exchange rate towards the exports. It is found that there is a positive impact of export found in Pakistan due to the fluctuations in value of currency comparatively Pakistani currency has been declined and in the entire period of time the role of the imports has negatively been found but the significant and influential point is the significance level and t-test value which are found non supportive and unacceptable. The value of t-test is found supportive with only reason that t-test value is above the standard value of the role of thumb which is standard of 2.00 and now this value is getting below that standard value is stating that the standard error figure is found higher in this relation and this situation.

These findings are supportive for the correspondence and acceptance of $H_{ib}$ Hypothesis and therefore the impact is positive. The hypothesis is not supported by the empirical evidences and which means a supportive compliance for the entire process the level of significance is found above the maximum limit of 0.015 and now it is almost 99.82 percent is confidence level and this means this is a strong level of confidence interval and proves it for the acceptance level.

Table 4.5 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of The Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.708a</td>
<td>0.502</td>
<td>0.446</td>
<td>4.65270E9</td>
<td>0.502</td>
</tr>
<tr>
<td>a. Predictors (Constant), Exchange Rates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.5 explaining the role of R and R-Square, F-test and its significance level. The findings proved that is correlation exist between the exports and currency fluctuations which is positive and impressive and influential at all. The value of R Square is 50.2 percent so the variability in the dependent variable is moderate and good at 50.2 percent while the rest 49.8 percent variability is due to other variables in the exports in Pakistan in the time period of 2000 to 2010 which are 11 years.

As for the value of F-test is concern it is found unacceptable at this level due to the higher than the standard value of rule of thumb which is value 9.066 and the standard value is 4.00 this means the standard value shall be met or exceeded because to this is providing support for the acceptance of the model now to analyze all this is considerable that this figure is not acceptable at this level and therefore the impact is contributive.

8. Discussion
Imports and exports are important factors or variable in any economy the economies are established with good and progressive outcome and these implements strong and effective basis to improve the economic procedural pathways for better outcomes. Therefore their roles are very significant and supportive to significantly apply and significantly analyzed for the uplift of the monitory values, progressions, economic stabilities and development in fiscal years in different spheres of times. In connections to all the impact is very important to get its considerations and implement the required economic planning and strategies for the uplift of the business initiatives and business development in different spheres of times.
There are numerous activities that implement strong ties between international communities and among the two are imports and exports where different economies are linked properly their activities are structured and they supportively interconnected to perform highly supportive and progressive roles for the development of economies. These don't exist at a particular dimension of value; in this manner, a nation imports preferred items over local products, additionally to the extent promoting or packaging are concerned. These speak to an item diversity that is refreshing locally yet not made precisely in this flat or blended variation. These are less expensive abroad, since makers there are increasingly proficient, are looked by lesser prices, better adventure economies of scale as well as acknowledge bring lesser benefits. These are at the present local values, makers don't supply sufficient good or service as the demands requires, likewise as a result of abroad coordination issues; appropriately, purchasers purchase foreign for deficient local creation.

The research work has been proving the impact of influential factor the import and exports and they are proved with the facts that imports are providing non supportive and outcome with currency fluctuation in the time period of 11 years and so the impact is found zero or non supportive. The addition the impact of export from the export point of views are supportive because they are found with positive impacting value of beta and the rest of facts are also found supportive in this connection. The impact currency fluctuation from the exports point of views are proved with supportive initiative which means they are positively increased in the time period of 11 years while the role is declared as contributive mutually connected. Therefore their significance remained as important and cooperative to excel them for this research study. Imports and exports both are important contributors to improingly consider for the research study. Imports are increasing the economic burden on the economy while exports are increasing the cash reserves, balance of payments and positive sign for the economic wealth and developments.

9. Conclusion
The research study has been conducted for the partial fulfillments of the degree requirements. In this research the researcher examined empirically the impact of currency fluctuation on the exports and imports. It is found that imports are non supportive and no correlation and regression is found due to insignificant values of regression and correlation for imports and currency fluctuation. In addition the role of currency fluctuation for exports are found well supportive in both aspects of correlation and regression and therefore it is found the currency fluctuation in the time period of 11 years from 2000 to 2010 has positively found the impact of currency fluctuations exports and thus they possess a significant position in this condition.

References


Impact of Inflation, Exchange Rate and Interest Rate on the Private Sector Credit of Pakistan

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ARTICLE DETAILS

ABSTRACT

The paper analyzed the long-term and short-term impact of interest rate, exchange rate and inflation on the private sector credit of Pakistan during the period from 1975 to 2018. To test the stationarity of data Augmented Dick Fuller (ADF) Test was applied. While the main model to explore the long-term and short-term dependence was based on Auto Regressive Distribution Lag (ARDL) Model. The results suggested no effect of exchange rate on private sector credit, while inflation has significant as well as positive impact on Private Sector Credit (PSC) in long as well as short run. Lastly, the most important dependence i.e. interest effect on PSC; depicted negative impact in both short and long term.

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1. Introduction

The efforts have been remained in the past to boost the private sector credit in Pakistan to uplift the level of financial inclusion, improve level of private investment and induce economic development. But the efforts to promote PSC cannot be done in isolation. As, it is a pure economic phenomena and is dependent on certain other variables (Nove, 2019). If a country is pursuing a policy to increase the private credit but at the same time it is struggling to provide inducing environment to support such policy, the results would not be different what we have achieved in the recent past (Abel, 2020). But still keeping in view the periods of high/low inflation and interest rates along with fixed and variable regime of exchange rates, it becomes a very interesting research ground to identify the long term and short term dependence among all these variables (Alhem, 2020).

Let’s analyze the outstanding debt in the banking sector of Pakistan. According to a report published by
State Bank of Pakistan (SBP), it is Rs. 8.8 trillion in gross terms while net outstanding debt after accounting for the provisions is Rs. 8.2 trillion. While at the same time total level of investments is Rs. 8.9 trillion. The table shows major chunk of PSC loan is outstanding in textile, energy, agribusiness and chemical and phramaceuticals.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical and Pharmaceuticals</td>
<td>311,429.1</td>
<td>3.5%</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>704,869.1</td>
<td>7.9%</td>
</tr>
<tr>
<td>Textile</td>
<td>1,205,711.3</td>
<td>13.6%</td>
</tr>
<tr>
<td>Cement</td>
<td>190,559.1</td>
<td>2.1%</td>
</tr>
<tr>
<td>Sugar</td>
<td>220,988.2</td>
<td>2.5%</td>
</tr>
<tr>
<td>Shoes and leather garments</td>
<td>38,634.4</td>
<td>0.4%</td>
</tr>
<tr>
<td>Automobile and transportation equipment</td>
<td>176,934.5</td>
<td>2.0%</td>
</tr>
<tr>
<td>Financial</td>
<td>252,057.7</td>
<td>2.8%</td>
</tr>
<tr>
<td>Insurance</td>
<td>4,299.5</td>
<td>0.0%</td>
</tr>
<tr>
<td>Electronics and electrical appliances</td>
<td>120,193.3</td>
<td>1.4%</td>
</tr>
<tr>
<td>Production and transmission of energy</td>
<td>1,492,818.5</td>
<td>16.8%</td>
</tr>
<tr>
<td>Individuals</td>
<td>763,625.2</td>
<td>8.6%</td>
</tr>
<tr>
<td>Others</td>
<td>3,386,624.1</td>
<td>38.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,868,743.9</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Table 1 shows more amount is invested in government securities than PSC. This phenomenon in economics is called as crowding out of investments in the economy (Duffin, 2020). However, there is contradictory argument as well. Even when the interest rate was at their lowest, still the PSC did not reflect any growth. The only growth was due to uptick in credit cards, car financing some personal loans product. This gives legitimate ground to study in detail the PSC (Alhem, 2020). The first right hand side variable of my research paper is interest rates. There are different types of interest rates like nominal interest rate, real interest rate, Weighted Average Lending Rate (WALR). In Pakistan, central bank is known as State bank of Pakistan (SBP), is responsible for setting the interest rate. The interest rate what SBP sets is called policy rate. Previously, it was called as discount rate an etc. according to a report, since 2009, SBP has implemented the interest rate corridor the policy rate then become the target rate and overnight lending rate of banks hover close to it mostly due to liquidity management performed by SBP due to regular Money Market Operations.

The nominal rate thus becomes the rate quoted by banks to their customers and in one way they are gross rates (Stiller, 2020). Moreover, if current policy rate is 9.0 percent, this means nominal rate is 9.0 percent. When interest rates are adjusted for the inflation, they become real rates. For example if the inflation 9.0 percent and interest rate is 11.0 percent then real rate will 2.0 percent. WALR, are weighted average rates based the 6-month average t-bill rate. For example policy rate drops from 11.0 percent to 9.0 percent it would not mean that customer will now be charged 200 bps less interest rate on its deposit (Duffin, 2020). Rather, he will be charged six-month average of t-bills. Thus, that the reason immediate drop in interest rate do not give relieve to the customers rather they ease out with some lag/delay. For the purpose of my research I have preferred to use real interest rates based on the literature review. Moreover, real interest rates give use the actual picture.

As far as inflation is concerned, in Pakistan economy we will find data pertaining to inflation in different forms like Head inflation, Core inflation, CPI inflation and more recently introduced bifurcation of urban and rural inflation by Pakistan Bureau of Statistics. Head inflation is the general level of overall inflation prevailing in the country while CPI is basket based calculation of the inflation. it is basket of around 428 items with weight assigned to each items. The core inflation is non-food non-energy inflation rate. For the purpose of research, I have taken nominal inflation rate base on CPI, which is...
generally accepted principle to calculate interest rate.

Moreover, the inflation has impacts on the purchasing power of an individual and more is the inflation it would reduce the purchasing power to pay the interest accrue on the loan and he avoid to take the loan. So, in the period of high interest rates there would be low level of PSC growth and in low level of interest there would be expected high growth in PSC. Monetarist thinks the increase in credit flow due to low level of interest rates only give short term boost to the economy and in long run they would induce the inflation. Keynesian are of view that increased in the government spending spur economic activity and would merely decreasing the interest rates would not affect the economic development.

The channel through which exchange rate can impact the private sector is external channel and as well as internal channel. If exchange rates are not fixed this means your elastic exports will be compatible in the external world. The compatible exports means you have advantage in terms of price. So, you would export more, when you export more you will have to produce more and when you produce more you will have to input more investment in your current business. The increased level of investment would surfaced the need to have more financing and this way demand for private sector would increase. However, on the other hand if the exchange rates are fixed over long period the imports instead of exports would be favorable for your country and you will import more at low price and to finance prolonged import of vehicles and other luxury item you need finances to run import businesses and again PSC will get positive impact. So, I will be interesting to see how ARDL model suggest the impact of right hand side variables on PSC.

2. Literature Review

Cochraine (2020) while studying the impact of lending rates on Private Credit identified there was no significant impact in case of Latin America but significant Impact in case of some Asian countries. Aikkina and Celebi (2013) in their paper on Impact of lending rates on private investment in Turkey included Dependent Variable Public and private investment and independent was interest rates both long run and short run and they concluded that financial liberalization in Turkey has no positive impact on the level of investment.

Krugman while giving an interview to NY Times 2008, stated that

“The central bank ability to pump economy by cutting interest rates have lost attraction in 1930’s.”

Mishkin (2012) post crisis period identified that MP is far less inertial in crisis than compared to normal economic time. Khawaja and Din (2012) while studying the determinants of PSC in Pakistan concluded that Lower interest rate and GDP growth has positive but insignificant impact on PSC. The independent variables they studied were Inflation, Deposits, GDP, cost of funds, liquidity in market. Schoenholtz (2020) explored the Private Sector Deposits and identified their impact on the PSC by exploring the data of over three decades. Johansen Cointegration and VECM were used but could not find any significant dependence between the two variables.

Lawrance and Christoper (2014) studied the Effect of interest rate on Credit in Malaysia. To understand the dependence co-integration analysis was run and it was concluded that 1 percent increase in interest rate reduce the credit volume by 17 percent. Similarly, Sulman (2020) while studying the Estimate of the Threshold Level of Inflation in Pakistan, it was concluded that The Granger Causality test defines causality direction from inflation to economic growth and not vice versa (uni-directional). It suggests 9 percent as the threshold inflation level. Moreover, Mauro (2020) concluded that inflation and economic growth are positively related and the lower interest rate has positive impact on GDP. The current data suggest that the growth in private sector credit (PSC) decelerated; reflecting the slowdown in domestic economic activities along with higher cost of borrowing, and lately, the suspension of production activities amid COVID-19 lockdown. The overall PSC witnessed an increase of Rs305 billion during 01 Jul–24 Apr FY20, which is substantially lower than the net expansion of Rs581 billion in the
corresponding period of FY19. In fact, a significant part of this expansion is attributed to the SBP financing schemes (EFS & LTFF only) which constitutes around 50 percent of private sector credit expansion during FY20 so far.

If we look at the current scenario of COVID-19, Cochraine (2020) takes a strong and bold stance on this current financial situation, asking “What happens if the economy shuts down for a few weeks or months, either by choice or by public-health mandate?” He latter states that “Shutting down the economy is not like shutting down a light bulb. It’s more like shutting down a nuclear reactor. You need to do it slowly and carefully or it melts down.”

Although, Cochrane (2020) does not provide estimates but shared the concerns about the complex nature of financial problems in the making i.e. decline in the aggregate demand, lack of businesses’ ability to pay off their debts and pay-off their employees (including factory workers). The study also highlighted that such situation might trigger broad based bankruptcy among businesses and common households. Thus, there are periods to come in which we have low level of Private credit growth.

3. Methodology
Based on the literature a simple equation was formed as under:

\[ \text{PSC} = B_0 + B_1 \text{ER} + B_2 \text{IR} + b_3 \text{RI} + \text{error} \]

\[ \text{PSC} = \text{Private Sector Credit} \]
\[ B_0 = \text{Constant} \]
\[ \text{ER} = \text{Exchange Rate} \]
\[ \text{IR} = \text{Interest rate based on CPI} \]
\[ \text{RI} = \text{Real Interest rate} \]

Data: Annual Data from 1975 to 2018

4. ARDL Model
The ARDL approach to co-integration following Mishkin (2012) estimates the existence of an equilibrium in terms of long-run and short-run equation without losing information. Moreover, analysis reflects that there is long term dependence between variables under consideration as stipulated by theory. This means that the long run dependence properties are intact. In other words, the means and variances are constant and not depending on time. The researches had shown that the constancy of the means and variances were not satisfied during analysis of time series variables. Resolving the problem most co-integration methodology are spuriously applied, estimated, and interpreted. One of these methodologies is the Autoregressive Distributed Lag (ARDL) co-integration methodology or bound co-integration methodology.

4.1 Long-run Equation

\[ \text{PSC}_t = c + B_1 \text{PSC}_{t-1} + B_2 \text{Rt-1} + B_3 \text{ER}_t - I + B_4 \text{CPI}_t - I + \text{error} \]

4.2 Short-run Equation

\[ \Delta \text{PSC}_t = c + \gamma_1 \Delta \text{PSC}_{t-1} + \gamma_2 \Delta \text{ER}_{t-1} + \gamma_3 \Delta \text{CPI}_t + \epsilon_{t-1} + \epsilon_{t-2} + \epsilon_{t-3} + \epsilon_{t-4} + \epsilon_{t-5} \]

4.3 Unit Root Test
The ADF test was applied all variables were not stationary at level. The graph also showed that data is un-stationary. The test results of ADF are given in Table 2.
Table 2: Results of ADF

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>First Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC</td>
<td>-1.1721</td>
<td>-4.2014</td>
</tr>
<tr>
<td>RI</td>
<td>-2.1235</td>
<td>-5.1118</td>
</tr>
<tr>
<td>ER</td>
<td>0.7897</td>
<td>-6.324</td>
</tr>
<tr>
<td>IR</td>
<td>-0.00001</td>
<td>-4.187</td>
</tr>
</tbody>
</table>

As per range define by Eviews, all variables become stationary at first difference. The LM test was conducted to identify an hetero in the data but at first difference all variables passed that test.

4.4 VAR Lag Order Selection

By using the function in Eviews, all variables were opened as VAR and then selected lag order using VAR lag order criteria. The results are as given in Table 3.

Table 3: VAR Lag Order Selection

<table>
<thead>
<tr>
<th>Lag</th>
<th>LogL</th>
<th>LR</th>
<th>FPE</th>
<th>AIC</th>
<th>SC</th>
<th>HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-543.2099</td>
<td>NA</td>
<td>4600593</td>
<td>26.69317</td>
<td>26.86034</td>
<td>26.75404</td>
</tr>
<tr>
<td>1</td>
<td>-442.2538</td>
<td>177.2887*</td>
<td>73301.66*</td>
<td>22.54897*</td>
<td>23.38486*</td>
<td>22.85335*</td>
</tr>
<tr>
<td>2</td>
<td>-432.5662</td>
<td>15.12212</td>
<td>102173.8</td>
<td>22.85689</td>
<td>24.36149</td>
<td>23.40478</td>
</tr>
<tr>
<td>3</td>
<td>-419.0898</td>
<td>18.40674</td>
<td>122886.6</td>
<td>22.97999</td>
<td>25.15330</td>
<td>23.77139</td>
</tr>
</tbody>
</table>

*Lag order selected by criteria
LR: sequential modified LR test statistic (5% level)
FPE: Final Prediction Error
AIC: Akaike Information Criterion
SC: Schwartz Information Criterion
HQ: Hannan-Quinn Information Criterion

The results of all the tests suggest to select one lag for applying ARDL Model.

4.5 Long-run ARDL Model

The results of long-run ARDL model are given in Table 4.

Table 4: Results of Long-run ARDL Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>T- stats</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI</td>
<td>-0.75</td>
<td>0.2235</td>
<td>-3.2542</td>
</tr>
<tr>
<td>ER</td>
<td>-1.82</td>
<td>0.5687</td>
<td>-2.213</td>
</tr>
<tr>
<td>IR</td>
<td>2.21</td>
<td>1.1120</td>
<td>4.115</td>
</tr>
</tbody>
</table>

The results given in Table 4 indicate that negative significant effect of lending rate (RI) on PSC in the long-term, as discussed earlier that high level of rates increases cost of borrowing thus reduces the demand. Inflation (IR) has positive and significant impact on PSC because historically we kept negative real interest rates in some periods will inflation was at medium level. So, it may be depicting this effect. The exchange rate has insignificant impact. The best fit ARDL equation is ARDL(1, 0,0,0)

4.6 Short-run ARDL Model

The results suggest that there is long term relationship among the variables. The best fit ARDL model is ARDL(1, 0,0,0).

The error correction term suggest that 32 percent deviations will be adjusted in the long-term scenario.

Table 5: Results of Short-run ARDL Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t- stats</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI</td>
<td>-0.1954</td>
<td>1.5648</td>
<td>-5.2552</td>
</tr>
<tr>
<td>ER</td>
<td>-0.45321</td>
<td>0.5687</td>
<td>-2.4573</td>
</tr>
<tr>
<td>IR</td>
<td>0.5956</td>
<td>1.1120</td>
<td>3.1415</td>
</tr>
</tbody>
</table>
5. Conclusion
The study examined the annual data of 1975-2018 of the PSC, interest rate, exchange rate and inflation. It was evident that there is a long term relationship among the variables and all variables were non-stationary but at their first lag variables become stationary. The result supports monetary argument that interest rate decline to boost economic activity results in inflation in long run. The era of 2002 to 2007 experienced low rates and uptick in PSC but later we have witnessed high level of inflation. Similarly, during 1990’s there were high level of interest rates and relatively volatile exchange rate as result of increase in price of money demand of PSC fell as the negative relationships shown in long run equation. For future study we may take REER instead of nominal ER, the REER is adjusted exchange rate after accounting for cross border inflation. That variable might produce some significant results as Pakistan has fixed ER regime for several year, so, that effect may be mitigated by using REER.

References
Relationship between Accounting Conservatism and Investment Efficiency with the Moderating Role of IFRS Adoption in Pakistan

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ARTICLE DETAILS

ABSTRACT

This study investigated the mandatory role of IFRS adoption in the association of accounting conservatism and investment efficiency in Pakistan. The study applied the model of Basu's (1997) to measure the conditional accounting conservatism for timely recognition of expected loss and gain. For empirical analysis, the study took a sample of 165 firms listed at Pakistan Stock Exchange and employed panel data methodology over the data of 2008-2017. Firms size, leverage, return on assets, and growth are taken as control variables to assess the relationship between accounting conservatism and investment efficiency. Findings of the study revealed that conditional accounting conservatism significantly affected the firms’ investment efficiency with the mandatory adoption of IFRS in Pakistan. IFRS adoption enhanced the firms’ investment efficiency and motivated to adopt the principle of accounting conservatism for recognizing the expected losses in timely manner in order to achieve investment efficiency. Timely recognition of expected losses played an important role in reducing agency problems and asymmetric information. In Pakistani setting, it is the pioneer study which highlighted the importance of accounting conservatism in protecting the surplus resources of investors and enhancing the overall investment efficiency under mandatory adoption of IFRS. These findings offer policy implications for focusing on the adaptation of IFRS in Pakistan.

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1. Introduction

The ongoing developments in today’s world, especially in developing countries, are being considered initiatives to progress but various economic issues create hurdles to achieve the targets. The developing economies need an appropriate way to use the surplus of wealth in better investment opportunities to
overcome these economic issues (Wang, Zhu et al. 2015). In this regard, one of the best approaches is expansion and development of efficient investment because the efficient investment is carried out by firms in different projects, have been considered as a tool to bear the shocks of recession periods (Hayati and Sedaghat 2016). The changing environment of world arise the need of proper and practical solutions to use surplus cash flows in the efficient investments. When a firm invests in the projects, it leads to the physical development of the country and it creates employment opportunities and when a firm invests in the shape of capital it leads to the development of capital markets. That is why the investment decisions are important to the firm as well as for the economy. Further, the quality of investment should be focused, rather than the quantity of investment.

In the absence of frictions like adverse selection or agency cost, firms focus on those projects which have a positive net worth at the current period. Generally speaking, investment efficiency refers to accept those projects which have positive NPV and neglect to those which have negative NPV in the current period (Lara, Osma et al. 2016). Investment efficiency is deeply subject to agency problems which easily leads to select the projects having negative net present value (Over-Investment) and neglecting of positive NPV’s projects (Under-Investment) by managers for their benefits. Both ways of investment (Over and Under Investment) belong to inefficiency in investment which will cause to loss of surplus resources so firms try to measure the loss by approaching the accounting conservatism principle to bring efficiency in investment by the anticipation of loss before accruing (Stein 2003).

Financial statements disseminate the internal information to stakeholders, however, the authenticity of this information cannot be certified, so there is lack of transparency (Dayanandan, Donker et al. 2016). The reported earnings are the main concern for the managers, investors and stakeholders (Shan 2015) and External capital providers rely on earnings regardless of other determinants. Earnings are of good quality if are a good indicator of future earnings (stable earnings), consequently, when an accounting treatment produces volatile earnings, those volatile earnings are estimated to be of poor quality. Accounting conservatism is a fundamental feature of quality of financial reporting, as it is improves the reliability of financial statements and reduces information asymmetry (Mohammed, Ahmed et al. 2017). Conservatism reduces agency conflict in three ways. First, it limits management overpayment to them and other parties with its timely recognition of losses and delayed recognition of profit (Watts, 2003). Second, it prevents managers from investing in negative net present value (NPV) projects (Delkhosh and Sadeghi 2017). Third, managers are more likely to abandon negative NPV projects under conservative accounting because it causes economic losses from these projects recognized on a time basis (Watts, 2003).

In this connection, International Financial Reporting Standards (hereafter IFRS) which are being adopted in different economies that provide assistance for efficient investment as moderator and improve the transparency as well as the comparability of accounting information (Barth, Landsman et al. 2008); (Lee 2011). IFRS were introduced by IASB by improving IAS in 2004 which leads to higher accounting quality, more market liquidity, and the lowest cost of capital. The goal of IFRS is the only provision of useful information for decision making about investment, IFRS provides that information in time as compare to domestic GAAP therefore, we expect more chances of overall efficient investment for that firm which is adopting international financial reporting standards because that firm’s investors are more able to monitor the management of the firm concerning efficient investment decisions (Lu and Trabelsi 2013). Financial economic theories state that the optimal investment process of a firm is mostly driven by the information asymmetry among firms and capital providers about how much surplus of resources are allocated by firms for investment opportunities and information asymmetry is another determinant of accounting conservatism (LaFond and Watts 2008). Additionally, accounting conservatism is helpful to avoid opportunistic behaviors of a firm’s management which leads to an increase in the value of the firm by choosing efficient investment-based projects. In accounting-based policies, accounting conservatism is a basic fundamental principle which is being used from last three eras, and for financial information, accounting conservatism principle is considered as most useable
attribute however the acceptability for economic and investment benefits of this is like a question among policy setters and academicians (Whittington, 2014). IFRS are accounting rules and standards issued by an independent organization known as IASB by updating IAS since 2001 to enable the users of financial statements to compare their statements with other countries. Pakistan has made many changes in its accounting standards according to international standards like IFRS. In this regard, SECP has directed the companies as per the direction of IACP to compliance the IAS / IFRS under section 234 of companies’ ordinance 1984. IFRS adoption is considered an appropriate set of IAS. Pakistan is one of the few economies that have started to apply the updated IAS since 2003. As ICAP is responsible for all accounting rules and regulations, has directed that all public companies listed in PSX are required to prepare their Financial Statements according to the updated IAS while IFRS is being adopted without making any alternation in such updated standards excluding IFRS 1 and IFRS 6 under the proper guidance of ICAP since 2007. Pakistan has not adopted IFRS 1 and 14 and IFRS 9 has been deferred until 30th June 2021. During the exemption period, companies are following the requirements of IAS 39.

2. Literature Review
Studies on accounting conservatism and investment efficiency are substantial and largely grounded upon agency theory and positive accounting theory. Quality of earnings figure is assumed an important element for the financial reporting of firms and firm’s performance in developed economies. However, in developing economies like Pakistan, it is expected that the financial reporting characteristics are not so effective the reduction of agency conflict due to the influential power of shareholders control and delicate legal enforcements. Conservatism limits the intent of managers to improve the explanation power of financial figures of firms. Thus, conservatism is a necessary approach to managing insecurity or inherent risks in transactions as it may protect the interests of stakeholders (Watts 2003). Conservatism can serve as a constraint on opportunistic managerial behavior, compensating for managerial biases by affecting asymmetric information and in a sense, conservatism improves the quality of earnings (Ahmed and Duellman 2007, Chen, Hemmer et al. 2007, Lara, Osma et al. 2009, García Lara, Garcia Osma et al. 2012).

In literature, conservatism is defined in many ways. For instance, as per first definition of Bliss (1924) conservatism means “anticipate losses rather to anticipate gains”. Basu (1997) viewed that earnings replicate the bad news quickly as compared to good news. Givoly and Hayn (2000) define conservatism as the choice of accounting principles that minimize reported cumulative earnings by slowing the recognition of income, faster recognition of expenses, lower the valuation of assets and higher valuation of liabilities. Under the current GAAP, conservatism applies to the measurement of wealth and recognition of income and expenses; tends to guide accountants to choose accounting methods in in favor of slower revenue recognition and lower valuation of net assets. This study follows the Basu’s (1997) model for the measurement of conservatism. Efficient allocation of capital theory endorses that the firm should avoid to invest funds in those projects having negative rate of return (Bushman, Piotroski et al. 2011). Sound quality of financial statements helps the stakeholders to allocate their resources efficiently by diminishing the asymmetric information and financial reporting quality enhances the investment efficiency (Guo, Huang et al. 2020). Conservatism deters the opportunistnic behavior of managers, not allow them to invest in the projects having negative Net Present Value or negative rate of returns and also prevent them to defer the losses to offset in the future. Conservatism accounting enhances the reporting quality, reduces the information asymmetry and resolves the problem of investment inefficiency (Chen et al., 2011; Guay and Verrecchia (2018).

Prior studies show that conservatism impacts positively the Investment Efficiency up to much extent. This type of impact produces in different forms. The first one can be observed in the form that conservatism which mitigates the level of asymmetric information between shareholders and managers and results in the reduction of the cost of adverse selection (Bushman, Piotroski et al. 2011), decreasing the cost of borrowing the external capital (Houcine 2017), and increasing the monitoring and controlling. It implies that managers are not much biased, the conflict of interest is lowest and they are
less likely to make those decisions which are biased or that are related to agency conflicts such as risk shifting, empire building and risk avoidance. The second form of this impact can be observed that if the quality of reporting and financial information is higher, it reflects “truthful” and unbiased representation which allows the employees and managers to make the predictions, planning and economic decisions on the basis of real situation of the firm.

(Bushman, Piotroski et al. 2011) state that low investment opportunities enhance the chances of accounting conservatism but finds that also there is no increase in the efficient investment process and opportunity by recognition of losses in time (Bushman, Piotroski et al. 2005). Mak, Strong et al. (2011) expand the accounting conservatism model and adoption to achieve investment efficiency by timely estimation of expected unfavorable cash flows among the United Kingdom listed firms while they find strong evidence about the use of conservatism principle of accounting for efficient investment. Roychowdhury (2010) and Guay and Verrecchia (2018) found that the conservatism constraints the role of manager as well as overcomes the agency problems which leads towards investment efficiency by gaining from over-investment patterns and on the other side accounting conservatism may become the cause of abnormal investment concerning incentives for managers that directly neglect the positive NPVs projects means to say an under-invest pattern of a firm.

Theoretical argument suggests that IFRS influences the asymmetric information among stakeholders by increasing the accounting information transparency and comparability (Abad, Cutillas-Gomariz et al. 2018). As stated earlier, minimum information gap leads to investment efficiency which reflects that optimal corporate investment is the result of IFRS adoption. Schleicher, Tahoun et al. (2010) examined the link between IFRS and investment efficiency in European countries and find that application of IFRS makes stronger sensitivity of cash flows and suggest that more cash flows result more investment opportunities. Márquez-Ramos (2008) investigates that the accounting process is a way to decrease the informational cost to enhance international investment, furthermore, concludes that adoption of IFRS has impacts on the European economy and “companies of different economies are expected to take part in opportunities of foreign investment with great extent” and this study also contributed that IFRS adoption in “risk-averse countries” has many fruitful results in term of FDI. Florou and Pope (2012) show that “the adoption of IFRS enhances the investors demand as well as an increase in institutional holdings by IFRS adaptors” while the mandatory adoption of IFRS leads to higher FRQ which motivates the firms to invest in efficient projects relatively compare to GAAP. André, Filip et al. (2014) examines the investment efficiency relationship along with accounting conservatism and IFRS adoption by French firms and finds that IFRS adoption balance the difference of over-under investment by considering that conservatism as an accounting quality factor for financial reporting. Chen, Young et al. (2012) elaborate the effect of IFRS adoption on investment efficiency of almost 17 EU countries’ firms and also gauge the effect of firms return on the asset on investment efficiency for the same population. In conclusion remarks they support that argument that after the adoption of IFRS affects the firm’s return on an asset as well as a decrease in over-investment and increase in under-investment that means an efficient investment of firm respectively. Balfoussia and Gibson (2018) study the relationship between corporate investment and financial condition in European countries after mandatory adoption of IFRS and find that “financial conditions are in control and play an important role for investment decisions after IFRS adoption”. Louis and Urcan (2014) Study to examine that what is leading role of mandatory adoption of IFRS in “cross-border acquisitions into adoption and non-adoption countries” so they find that there is a significant enhancement of the flow of investment in those countries’ listed firms which adopt the IFRS. Shima and Gordon (2011) research in the United State to investigate the relationship of international investment made by US investors in other economies after the implementation of IFRS and say that there is a significant positive association between US investment and adoption of IFRS with proper enforcement of regulation and legal system. IFRS adoption reduces informational conflicts among managers and investors, outsiders and insiders, means have a positive impact on the investment efficiency of firms and the other hand, IFRS are recognized as improvements in accounting conservatism (André, Filip et al. 2014).
3. Methodology
The sample of the study consists of listed firms in the Pakistan Stock Exchange for the years 2008 to 2017. Financial firms and insurance companies are excluded from the sample because of differences in reporting structures and regulations (Firth, Fung et al. 2007). Firms with insufficient data are also excluded and final sample consist of 165 firms after the adjustment of outliers. We extract the financial data directly from the annual reports of non-financial firms.

3.1 Measurement of Accounting Conservatism
Managers can do earning management by using two ways. Either through intentionally manipulation in accruals or through influence in real activities. In first method, only accruals are manipulated and operating activities and cash flows are not affected. It means that only performed activities are manipulated. However in the second method, managers involve in manipulation of firm’s events that have an impact on earnings. Such type of manipulation has direct impact on cash flows. The managers and firms give discount to enhance sales for the time being, operates overproduction and cut in discretionary expenses, to increase the earning figure. To detect the timely loss recognition, first proxy developed by (Basu 1997). This model is based on the assumption that when losses are incurred, market efficiency reflects in returns. In this empirical study we use the Basu model to measure the conditional conservatism by using earnings-returns association as under:

\[
\frac{\text{NINCOME}_{it}}{\text{MVE}_{t-1}} = \beta_1 + \beta_2 D_t + \beta_3 SRET_t + \beta_4 D_t X SRET_t + \epsilon_t
\]  

(1)

Where: NinCOME represent net income in time; MVE shows the market value of equity at the beginning of time t; \(D_t\) is a dummy variable, 1 if \(SRET_t < 0\) and 0 otherwise and SRET is the stock price return at time t. \(\beta_3\) is the measure of good news timeliness and \(\beta_4\) is a measure of incremental effect of bad news timeliness over good news timeliness. Higher \(\beta_4\) reflects the higher level of timely loss recognition i.e If bad news is recognized in a more timely fashion than good news, \(\beta_4\) will be greater than zero (\(\beta_4 > 0\)). Higher timely loss recognition depicts the good level of earning quality.

3.2 Measurement of Investment Efficiency
Investment efficiency is a dependent variable of this study we represent the firm is working efficiently if firms undertake investments with positive NPV so as per previous studies, investment efficiency is measured as deviations from expected investment using a model that predicts investment as a function of growth opportunities so both types of investments as over investment and under-investment are considered as inefficient investments made by firm (Biddle, Hilary et al. 2009). This model is based on the firm’s sales value shows that the firm is expecting efficient investment;

\[
\text{Investment} = \alpha_0 + \beta_1 \text{Sales}_{it} + \epsilon_{it}
\]

(2)

Positive residuals represent that there are positive deviations from expected investment means over-investment which suggests that selection of negative NPV’s projects by firm but if calculated residues would be negative, it means that negative deviation from an expected investment of firm which represent the under-investment. In this model if \(\epsilon_{it} < 0\) = under-investment while if \(\epsilon_{it} > 0\) = over-investment.

3.3 Measurement of IFRS
International reporting standards adopted as moderating variable in this study which is being estimated by considering as a Dummy Variable (Piot, Dumontier et al. 2011) (Piot, Janin et al. 2010). Coded one if a firm reported the financial statements under IFRS otherwise coded zero.

3.4 Empirical Models
To test the hypothesis, a multiple regression analysis is used. To check the multicollinearity, correlation analysis is and ensured that the data is free from this issue. Other diagnostic tests are also applied and
following (Omware, Atheru et al. 2020), we use the following three regression equations to investigate the relationship between investment efficiency and accounting conservatism with the moderating role of IFRS:

\[
INEF_{it} = \alpha + \beta ACON_{it} + YIFRS_{it} + \xi SIZE_{it} + \varphi LEV_{it} + \tau GW_{it} + \lambda ROA_{it} + \varepsilon_{it}
\]  

(3)

Where \( INEF_{it} \) = Investment Efficiency, \( ACON_{it} \) = Accounting Conservatism, \( IFRS_{it} \) = International Financial Reporting Standards, \( SIZE_{it} \) = logarithm of total assets, \( LEV_{it} \) = Debt to Equity, \( GW_{it} \) = Market Value of Equity / Book Value of Equity, and \( ROA_{it} \) = Net Income / Total Assets; and \( \varepsilon_{it} \) = Error term. \( i \) is the number of firms 1,2,3……..\( N \) and \( t \) is the number of years 1,2,3……\( T \).

To address the moderating role of IFRS adoption, equation 4 with the introduction of the interactive term is expressed as under:

\[
INEF_{it} = \alpha + \beta ACON_{it} + YIFRS_{it} + \eta ACON_{it} * IFRS_{it} + \xi SIZE_{it} + \varphi LEV_{it} + \tau GW_{it} + \lambda ROA_{it} + \varepsilon_{it}
\]

(4)

The sign of coefficient of the interactive term (\( \eta \)) express the moderating role of IFRS that whether IFRS adoption distort or enhance the association among accounting conservatism and investment efficient in the context of Pakistan. A positive sign indicates that the IFRS adoption increases the association and negative sign indicates the distortion of the relationship of the conservatism and investment efficiency.

To gauge the total effect of IFRS adoption on the association of conservatism and investment efficiency, the equation is expressed as:-

\[
\frac{\gamma INEF}{\gamma ACON} = \beta + \eta IFRS
\]

(5)

Given that \( \beta \) is expected to be positive, if the positive sign of \( \eta \) is greater than the positive sign of, this implies that IFRS adoption is sufficient to enhance the “positive” effect of Conservatism on investment efficiency.

3.5 Control Variables
Following control variables are taken into account in this study.

3.5.1 Firm size (FS)
Prior studies use the company size as a determinant variable of firm investment magnitude, economic and financial performance and as a determinant of financial reporting quality. Big firms are motivated to explain optimistic results on investment horizons (Prior, Surroca et al. 2008). Moreover the size of the company has been used in many research studies concerning financial reporting quality, but these consequences are uncertain (Martínez-Ferrero 2014). Corporation size is estimated by taking the natural logarithm of firm’s total assets.

3.5.2 Leverage (LVG)
High levered firms are induced to underinvestment (Bistrova, Lace et al. 2011) and leverage is the risk of debt or default and it can be measured by taking the ratio of debt to equity. Different variables commonly used in earlier studies are the rank of leverage (DEBT). But it was found that debt ratios are the main determinants of earnings management changes (Martinez, 2014).

3.5.3 Growth (GW)
Previous research suggests that managers have an incentive to engage in excessive investment to expand their companies' business beyond the ideal level and to consume benefits when their companies experience a high level of growth (Richardson 2006). Growing a firm is expected to enhance the firm’s
value therefore we include the level of growth as a control variable in this study. GW is measured by dividing the market value of equity by the book value of equity (ratio of equity) belong to the firm (Billett, King et al. 2007).

3.5.4 Return on Asset (ROA)
Many existing studies demonstrate that larger and more profitable enterprises prefer financial stability and conservative management, preventing managers from getting involved in excessive investment, so we gauge the company profitability, which can be calculated as shared net profit of the total assets held by the company (Frederickson and Hilary 2006).

4. Empirical Results
Descriptive statistics is applied for the purpose to summarize the attributes of data. Table-1 elaborate the key descriptive statistics values of the adopted factors of the study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S. D.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>INEF</td>
<td>0.5224</td>
<td>0.2240</td>
<td>0.0073</td>
<td>0.9995</td>
</tr>
<tr>
<td>ACON</td>
<td>-0.3045</td>
<td>1.3249</td>
<td>-1.2055</td>
<td>4.5398</td>
</tr>
<tr>
<td>IFRS</td>
<td>0.6000</td>
<td>0.4900</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ACONxIFRS</td>
<td>-0.1874</td>
<td>1.8995</td>
<td>0</td>
<td>4.5398</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0719</td>
<td>0.1327</td>
<td>-1.2070</td>
<td>0.8062</td>
</tr>
<tr>
<td>SIZE</td>
<td>5.0990</td>
<td>1.6914</td>
<td>3.7102</td>
<td>9.0230</td>
</tr>
<tr>
<td>LEV</td>
<td>0.4802</td>
<td>0.2578</td>
<td>0.2456</td>
<td>0.7369</td>
</tr>
<tr>
<td>GW</td>
<td>0.4333</td>
<td>1.7248</td>
<td>-0.0389</td>
<td>0.6137</td>
</tr>
<tr>
<td>ROA</td>
<td>0.2435</td>
<td>1.8972</td>
<td>-0.0452</td>
<td>0.9835</td>
</tr>
</tbody>
</table>

As concern with table-1, investment efficiency has a mean value of 0.5224, the value of overall standard deviation is 0.2240 with the minimum value of investment efficiency (overall) is 0.0073 and the overall maximum value of investment efficiency is 0.9995. These statistics indicate that firms are involved in over investment strategies as mean value is positive. The descriptive results of accounting conservatism are: mean value is -0.3045 while standard deviation is 1.3249 and overall minimum and maximum values are -1.2055 and 4.5398 respectively. Positive value of ACON shows that the firms use the principle of conservatism. IFRS has a mean value of 0.6000, the value of standard deviation is 0.4900 with minimum value of international financial reporting standards (overall) is 0 maximum value of IFRS is 1. The descriptive results about the interactive term of IFRS and conservatism (ACONxIFRS) are such as: mean value is -0.1874 while standard deviation is 1.8995 and the overall minimum and maximum values are 0 and 4.5398 respectively. The descriptive results of return on asset (ROA) show that the mean value is 0.0719 while standard deviation is 0.1327 overall and the overall minimum and maximum values are -1.2070 and 0.8062 respectively. The descriptive results of firm size (SIZE) are: mean value is 5.0990 while standard deviation is 1.6914 and the overall minimum and maximum values are 8.7102 and 20.0230 respectively. Mean value of firm leverage (LEV) is 0.4802, standard deviation is 0.2578, overall minimum value is 0.2456 and maximum value is 0.7369 respectively. These leverage results show that firms in Pakistan rely on debt. The descriptive results of firms’ growth (GW) show that the mean value is 0.4333 while standard deviation is 1.7248 overall with minimum and maximum values -0.0389 and 0.6137 respectively.

The correlation matrix provides an assistant to check the issue of multicollinearity among sample variables. There is a phenomenon in which two or more independent variables are too correlated with each other in multiple regressions. The correlation matrix also tells and presents the relational strength of independent variables of the study.

Table-2 identifies the strength of the relationship among variables which indicates that the correlation between accounting conservatism and investment efficiency is 0.1823. Correlation between IFRS and
INEF is also positive 0.1134 and the relationship among interactive term and INEF is 0.1134. The relationship between INVEFFI and ROA is 0.1905 which indicates the positive association between investment efficiency and return on asset. While table value of size 0.3860 shows the positive relationship between INEF and SIZE, furthermore, above table also explains the negative correlation of investment efficiency and firms’ leverage by showing value as -0.3713. Firms’ growth is positively associated with investment efficiency suggesting that firm with growth opportunities have involved in efficient investments. This correlation matrix:

<table>
<thead>
<tr>
<th>Variable</th>
<th>INEF</th>
<th>ACON</th>
<th>IFRS</th>
<th>ACONxIFRS</th>
<th>ROA</th>
<th>SIZE</th>
<th>LEV</th>
<th>GW</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>INEF</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACON</td>
<td>0.1823</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFRS</td>
<td>0.1134</td>
<td>0.2536</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACONxIFRS</td>
<td>0.0027</td>
<td>0.3817</td>
<td>0.0140</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.1905</td>
<td>0.0200</td>
<td>0.036</td>
<td>0.0187</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.3860</td>
<td>0.0221</td>
<td>0.0783</td>
<td>0.0362</td>
<td>0.1722</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.3713</td>
<td>0.0168</td>
<td>-0.0060</td>
<td>0.0141</td>
<td>-0.3528</td>
<td>-0.1355</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW</td>
<td>0.1953</td>
<td>-0.0064</td>
<td>0.0287</td>
<td>0.0023</td>
<td>0.4079</td>
<td>0.0507</td>
<td>-0.1721</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.3246</td>
<td>0.4814</td>
<td>0.2460</td>
<td>0.2917</td>
<td>0.2754</td>
<td>0.3702</td>
<td>0.3065</td>
<td>0.3520</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

represents that there is no any correlation coefficient is higher than 0.50. We have calculated the variance inflation factor for each explanatory variable (results not shown here) and it is confirmed that there is no problem of multicollinearity exists in the data series.

4.1 Regression Results

For the panel data analysis, Hausman test is applied for the selection between random effect and fixed effect models. Panel data analysis covers the heterogeneity of firms and captures time variations effect as well. As concerned with the above-stated test the P-value is less than 5% which means that fixed effect model is appropriate for the estimation of data. Main results are reported in Table 3 and it is clear that in all regression characteristics, the value of $R^2$ is high along with the statistically significant value of F-statistics, both supports the reliability of the results. Keeping the other factors same, the results indicate that ACON has a positive significant association with INVEFFI as p-value is less than 0.05 and also the coefficient value of ACON is 0.05653 which means that 1 unit change in accounting conservatism will cause of 5.6% positive change in investment efficiency. These results approve that conservatism leads to investment efficiency and deters the managerial opportunities behavior and enhance the information asymmetry. These findings are aligned with the results of (Lara, Osma et al. 2016).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model-1</th>
<th></th>
<th>Model-2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Prob.</td>
<td>Coefficient</td>
</tr>
<tr>
<td>ACON</td>
<td>0.0565</td>
<td>0.0324</td>
<td>0.0749</td>
</tr>
<tr>
<td>IFRS</td>
<td>0.0323</td>
<td>0.0154</td>
<td>0.0393</td>
</tr>
<tr>
<td>ACONxIFRS</td>
<td>-----</td>
<td>-----</td>
<td>0.0927</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.0675</td>
<td>0.0360</td>
<td>0.0879</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0328</td>
<td>0.0472</td>
<td>-0.0290</td>
</tr>
<tr>
<td>GW</td>
<td>0.0086</td>
<td>0.0078</td>
<td>0.0551</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0762</td>
<td>0.0386</td>
<td>0.0159</td>
</tr>
<tr>
<td>CONS.</td>
<td>0.0927</td>
<td>0.0582</td>
<td>0.0769</td>
</tr>
<tr>
<td>F-Stat</td>
<td>3.1400</td>
<td>(0.0152)</td>
<td>2.5076</td>
</tr>
<tr>
<td>Adj. R-Square</td>
<td>0.4946</td>
<td></td>
<td>0.5087</td>
</tr>
</tbody>
</table>

The coefficient of IFRS (0.0323) shows that a 1 unit change in IFRS is caused a change of 3.23% in investment efficiency at 5% level of significance. These findings suggest that set of IFRS reduces the
asymmetric information by increasing the comparative power of financial statements and stakeholders can recognize the good or bad investment horizons. Taken together, these results provide evidence that the mandatory adoption of IFRS seems to alleviate the information asymmetry between the minority and majority shareholders in countries where several investors exercise significant control over resources and assets. Firm’s Size, growth, leverage and profitability are served as control variables to determine the investment and financial decisions (Biddle, Ma et al. 2020). The positive and significant magnitude of size indicates that large firms have better investment performance as compared to small concerns.

In model-2, IFRS has significant positive effect (0.0393) on investment efficiency at 5% level of significance indicating that a unit increase in the IFRS adoption cause around 3.93% increase in the selection of efficient investments. The coefficient of interactive term is 0.0927 (positive) and it occurs at and higher than 5% level of significance. These results show that interactive term did not inhibit the relationship between accounting conservatism and investment efficiency of the firms. A positive sign indicates that the IFRS adoption increases the association of the conservatism and investment efficiency. To gauge the total effect as suggested in model-3, the coefficient of interactive term is positive which represent that IFRS adoption enhances the relationship of conservatism on investment efficiency. This coefficient is positive and significant at 5% level. Influence of IFRS as a moderator is gauged through the magnitude of the interactive term as suggested in model-3. The value 0.1676 (i.e. 0.0749+0.01676) represents the total effect of accounting conservatism on investment efficiency. These findings show that positive interaction is sufficient to enhance the positive association of conservatism and investment decisions. This is a significant contribution in the literature relating conservatism.

5. Conclusion
The purpose of this study is to identify the association of accounting conservatism and investment efficiency under the moderating role of IFRS adoption by Pakistani firms. This study also captures the impact of conservatism under the shadow of asymmetric information to the concept of agency theory (Aharony, Barniv et al. 2010). This study empirically proves that adoption of IFRS improves conservatism and conservatism enhances the efficiency in the investment of sample firms as (André, Filip et al. 2015) state such results in their research. Further, asymmetric information plays an important role towards the adoption of IFRS concerning enhance underinvestment and to reduce overinvestment while this study also contributes that, with the adoption of IFRS, more conservative sample firms invest more as the study of (Ahmed and Duellman 2011) present such impacts. In this study, the association between conservatism and IFRS adoption is significant which means that mandatory adoption of IFRS by Pakistani sample firms increases the opportunities to recognize expected loss in time to select those projects having positive NPVs and to neglect such projects which have negative NPVs to enhance the chances of efficient investment, however, as recent and last studies present that mandatory adoption of IFRS improves accounting conservatism along with improvement of investment efficiency also by such adoption by developed and underdeveloped economies (Aharony, Barniv et al. 2010); (Kythereotis 2014) and (Whittington 2014). Investors should motivate the firms to conduct conservative financial reporting under the proper implementation of IFRS to recognize the loss in time to achieve efficiency in investment made by them. The principle of accounting, conservatism is useful for investors of business firms to protect their investment and to enhance the value of the firm.

Regulatory bodies and standard setters should adopt the accounting principle of conservatism in the presentation of financial statements of firms under international reporting rules and regulations like IFRS rather than under local/national reporting standards such as GAAP, further, to motivate the firms’ managers to show a fair picture of firms’ position before the investors for efficient investment. Finally, the results of the adoption of such recommendations will be a reduction in agency and asymmetric information related conflicts respectively. This study considers few variables i.e. accounting conservatism; investment efficiency and post-adoption of IFRS in Pakistan only along with some control variables such as growth, size, and leverage while for future research, conservatism and investment efficiency can be tested through the relationship of conservatism with corporate governance, audit
quality, FRQ, earning management and performance of other developing economies’ firms belong to pre and post-adoption of IFRS by Sri Lankan and Indian firms, etc.

References


Home Management Skills in Educated Young Girls in Punjab: A Quantitative Investigation

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ARTICLE DETAILS

ABSTRACT

In our cultural context, home management is a great challenge that is confronted by almost all adolescent girls. This quantitative study was conceptualized to explore the ground realities regarding the capability of young girls to manage their homes. The population of study consisted of all young girls enrolled in degree and higher education programmes of colleges and universities. A sample of 100 young girls (18-25 years old) was selected conveniently from 4 eminent public and private sector universities in Punjab. A self-developed and validated questionnaire (cronbach Alpha: .91) containing components of home management including time management, money management, team work, cleaning habit, laundry, cooking and how to plan a menu containing 28 statements on three point Likert type scale was used to collect data. Personally collected data from the subjects were analyzed on SPSS. Analysis of variance (ANOVA) was applied to calculate the mean difference among different home management skills and to see the mean difference in the expertise level of young girls in managing their homes on the basis of studying in different universities. Moreover, t-test was run to see the difference between the girls, belong to rural and urban areas. Frequency distribution of responses was calculated. Major findings revealed that young girls were not good in time management, laundry and cooking. Conclusions were drawn and recommendations to the families of girls, and universities for the inclusion of subject of Home Management in the curricula of respective department were made.

Keywords: Educated young girls, expertise, home management, Punjab

JEL Classification: M10, M12

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1. Introduction
The procedure of conserving, looking after and keeping your home is called home management. Home is a place where we relax after a tiring day. Relaxation is essential for the people of all ages. In this sense, home is an assortment of systems and structures. Lastly home management is the actions conceded to protect, guard and develop your home and its structure (Fisher, 2016). Supervising the home accurately is the only way to make it a good livable place because home is the best place where everyone necessitates to live. Home management can also be classified as the effectual use of accessible resources (Anderson & Anne, 2014). According to Joseph (2017), arranging the home in a proper manner is very useful, small things cannot get worst and it can be solved easily before becoming big problems. If the home is well supervised, bills and taxes paid on time to evade investment and interest charges. People have less stress and therefore they live a longer life. In a well-managed home, things cannot get wasted like eatables, garments medicines and many others. Home management assisted a family, that how to be helpful for one another? Home management permits to work elegantly but not rigidly (Kotzin, 2017).

1.1 Benefits of Home Management
According to Anderson and Anne (2014), home Management is an essential component in every family which contributes to the vigor, strength and happiness of the family. Now a days, management is playing an effective role in every field of action. The idea of management contracts with attaining desired goals through planned activity. Home management is actually one of the greatest tasks of the family living, when the family is began (Prospero, 2013). The study of Home administration is personally connected with qualities, models and objectives which offer significance to the lives, considerations, sentiments and encounters of the individuals from the family. These qualities, measures and objectives which are firmly identified with one another, propel the family to decide, to accomplish their coveted objectives. Home administration is fulfilling and a noteworthy help to the homeowner. Begin home consideration with energy and you'll appreciate the advantages (Kotzin, 2017).

1.2 Significance of Home Management
According to Joseph (2017), home administration is tied in with enhancing one's home. As the proverb says, “An ounce of Prevention is superior to heaps of Cure”. Likewise the house should be kept up to guarantee it is justified regardless of the purchase. Houses are tremendous ventures and legitimate arranging is stressed to guarantee it endures. An all-around oversaw home is all the more fulfilling to live in, spares you cash over the long haul, the embellishments are accessible constantly (Sharon, 2020). Following are some of the factors that assures the excellent management of home.

1.3 Conserving Home
Conserving is to make things last. Conserving is the primary line of resistance in the assurance of a home. The machines utilized at home needs usual support to maintain a strategic distance from any breakdowns. House cleaning, painting, supplanting prerequisites in the home guarantees you are safeguarding the nature of your home, decorating your condition. A powerful home administration arrangement is a property holder's most profitable resource (Sharon, 2020).

1.4 For Protecting Home
According to Kotzin (2017), security implies protecting or guarding against assault and protecting from threat. Natural dangers like spoil and form are costly to repair, as well as can be undermining to the wellbeing of the occupants. A check in time can avert significant cleaning and limit costs as well. Shielding your home from regular cataclysms like fire, seismic tremor, water flooding. Check for protection inclusion to secure the speculation and family. Check for any harms jumping out at the home by methods for bugs, building harms like breaks. Arranging, sorting out will fend off emergency.

1.5 For Enhancing Home
After an immense venture it is fundamental to have a decent upkeep of the home, furniture and
environment. Arranging the home and the accessible space is a major test. Owning a home can be a test. In any case, dealing with your house is an incredible method to compose assignments in manners that enable you to finish them less demanding and all the more effectively (Balmet, 2014). Your contribution in home upkeep empowers you to take pride of your home and you might be your neighbors envy. Improving your home does not require extra penny, it is a method for standard support. The present homes are more intricate and refined than any time in recent memory. Mortgage holders are likewise busier than any time in recent memory. This is the reason a viable home administration is a boon chance. Dealing with your home appropriately bodes well as far as your property, way of life and esteem (Prospero, 2013).

1.6 Keeping Up Property Value
As indicated by Joseph(2017),A home that falls into decay can lose esteem, making it less alluring to potential purchasers. A home administration plan ought to incorporate a timetable for routine support and cleaning for inside and outside of the home and additionally the encompassing property. In case you're not especially helpful or don't have room schedule-wise for upkeep, it tends to be justified regardless of your while over the long haul to employ a jack of all trades or cleaning individual to do a portion of the work for you (Kotzin, 2017).

1.7 Following Finances
According to Fisher (2016), home administration likewise ought to incorporate an arrangement to deal with your family unit funds. Set up a month to month spending plan to track costs and take out inefficient spending. Build up an arrangement for dealing with bills when they arrive, for example, setting up a recording framework with a different document for every day of the month and putting the bill in the document for the day it ought to be paid. Set up a store to cover normal family unit costs, for example, cleaning supplies and groceries.(Palmer, 2019)

1.8 Showing your Kids
On the off chance that you have children, getting them associated with home administration can be a decent method to show them the significance of taking care of obligation and dealing with their own family when the time comes(Balmet, 2014). Give them tasks or undertakings to do around the home and include them in the planning procedure by urging them to discover approaches to help trim family costs. Children can likewise give a less expensive wellspring of work than enlisting cleaning or upkeep help.(Palmer, 2019).

1.9 Objectives of the Study
Following are the objectives of the study:

1. To find out the level of expertise in educated young girls in managing their homes.
2. To identify the difference between the responses of young educated girls about their level of expertise in managing homes on the basis of their age.
3. To identify the difference between the responses of educated young girls living in rural and urban areas regarding their home management.
4. Give suggestions that how young girls improve their managing skills.

1.10 Research questions of the Study
Following are the research questions of the study:

1. What is the level of expertise in educated young girls in managing their homes?
2. Is there any significant difference between young girls regarding their age and their level of expertise in managing homes?
3. Is there any significant difference between educated young girls living in rural and urban areas regarding their home management?

2. Methodology
The study was Quantitative in nature and convenient sampling technique was used for selecting the sample.

2.1 Population
According to the information provided by official website of Higher Education Commission, there are 27 public and 24 private sector universities in Punjab. Population of the study consisted of all students enrolled in Bachelors and Master’s degree programs of public and private sector universities in Punjab, ranging from 18-25 years of age.

2.2 Sample
The sample was selected through simple random sampling technique. At, two public and two private sector universities were selected randomly, 100 students were selected conveniently from each selected university.

2.3 Instrumentation
A self-developed and validated questionnaire (cronbach Alpha: .91) containing components of home management including time management, money management, team work, cleaning habit, laundry, cooking and how to plan a menu containing 28 statements on three point Likert type scale was used to collect data. Initially, 35 statements were formulated which were reduced to 28 after getting the questionnaire validated by three educationists and after pilot testing.

3. Data Analysis
Data were analyzed by running frequencies. The collected data were tabulated and analyzed as under:

<table>
<thead>
<tr>
<th>Sr. no</th>
<th>Statements</th>
<th>No</th>
<th>To some extent</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>You finish every task on time.</td>
<td>10</td>
<td>39</td>
<td>51</td>
</tr>
<tr>
<td>2</td>
<td>You do procrastination.</td>
<td>36</td>
<td>27</td>
<td>77</td>
</tr>
<tr>
<td>3</td>
<td>You avoid procrastination.</td>
<td>5</td>
<td>17</td>
<td>78</td>
</tr>
<tr>
<td>4</td>
<td>You suffer from your habit of</td>
<td>21</td>
<td>21</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>procrastination.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>You have problem in time management.</td>
<td>22</td>
<td>19</td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>You achieve your goals due to good</td>
<td>42</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>time management.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>You are a looser sometimes as you</td>
<td>6</td>
<td>14</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>cannot manage time.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>You can properly manage money.</td>
<td>22</td>
<td>10</td>
<td>68</td>
</tr>
<tr>
<td>9</td>
<td>You do everything within your</td>
<td>24</td>
<td>4</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>means of income.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>You often borrow money.</td>
<td>8</td>
<td>5</td>
<td>87</td>
</tr>
<tr>
<td>11</td>
<td>You spend more than your earning.</td>
<td>59</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>12</td>
<td>You save money for rainy days.</td>
<td>54</td>
<td>13</td>
<td>33</td>
</tr>
<tr>
<td>13</td>
<td>You collaborate with other people.</td>
<td>15</td>
<td>8</td>
<td>77</td>
</tr>
<tr>
<td>14</td>
<td>You can manage with people of</td>
<td>14</td>
<td>10</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>different temperaments.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>You fully contribute during</td>
<td>15</td>
<td>23</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>involving in team work</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Independent Sample t-test to identify the difference between rural and urban educated young girls regarding home management

<table>
<thead>
<tr>
<th>Area</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>43</td>
<td>34.74</td>
<td>4.811</td>
<td>98</td>
<td>1.23</td>
<td>.220</td>
</tr>
<tr>
<td>Urban</td>
<td>57</td>
<td>35.93</td>
<td>4.720</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of Independent sample t-test (Table:2) reflect that there was no significant difference (rural Mean: 34.74; urban Mean: 35.93) in the opinions of educated young girls on the basis of locale (rural & urban). It reflects that educated young girls belonging to rural and urban areas were having similar views regarding home management skills.

4. Major Findings

Major findings of the study are as follows:
1. Almost 51% of the girls reported that they could finish every task on time.
2. Majority of the girls (77%) said that they did procrastination.
3. A large number of girls (78%) responded that they tried to avoid procrastination.
4. Almost 58% of the girls answered that they suffered from the habit of procrastination.
5. Almost 59% of the girls reported that they have problem in time management.
6. Some of the girls (44%) responded that they achieved their goals due to good time management.
7. A vast number of girls (80%) reported that they lost sometimes as they could not manage time.
8. Many of the girls (68%) replied that they could properly manage money.
9. Most of the girls (72%) responded that they used to do everything within their means of income.
10. A large number of girls (87%) reported that they often borrowed money.
11. Some of the girls (31 %) reported that they used to spend more than their earning.
12. Few of them (33%) responded that they could save money for rainy days.
13. A majority of girls (77%) answered that they used to collaborate with other people .
14. Many girls (76%) reported that they could manage with people of different temperaments.
15. Some of the girls (49%) responded that they fully relied on others in team work.
16. Some of the girls (47%) answered that they had cleaning habit.
17. Most of the girls 61% reported that they fully contributed while doing team work.
18. Almost 68% of the girls responded that they used to create mess while doing a task in cleaning
19. Some of the girls (29%) reported that they used to provide assistance in cleaning.
20. Some of the girls (42%) reported that they could cook independently.
21. Almost (45%) of the girls responded that they needed assistance in cooking.
22. Some of the girls (38%) reported that they could not cook.
23. Few of the girls (39%) reported that they could plan menu independently.
24. Almost half of the girls (53%) answered that they used to rely on others to plan a menu.
25. Some of girls (45%) responded that they did not plan a menu.
26. Almost 59% of the girls responded that they were good time managers.
27. Almost half of the (59%) of the girls replied that they had a problem in time management.
28. Most of the girls (69%) reported that they were poor in time management.
29. Results of the study revealed that there is no significant difference in the opinions of the girls belonging, to rural and urban areas in managing their homes.
30. On the other hand, study also revealed that young girls are good at managing their homes as compared to other girls.

5. Discussion and Recommendations
The study was conducted to find out the expertise of educated young girls in home management. The major focus of the study is to explore the home management skills like managing time, money and planning of educated young girls. The results of the study indicates that young girls (18-21) are more competent in managing homes rather than other girls (22-25), but on the other hand they faced some problems in managing time, money, planning, cooking, cleaning and doing team work. According to Sharon (2020), with regards to home management there is a wide range of perspectives in taking care of a home and in addition to the fact that you need to know the essentials in cleaning, home keeping, money however you additionally need to realize how to plan a menu and do laundry. It was also revealed by the study there is no significant difference in between the girls of rural and urban areas regarding home management. The level of expertise was almost same for the girls of rural and urban areas.

The following recommendations are made on the basis of results of this study:
1. The young educated girls should be trained to complete their assigned tasks on time both at home and in their educational institutions.
2. The young educated girls should be taught to save money for hard times.
3. They should be taught to take care of cleanliness while doing work.
4. A sense of trustworthiness should be created in them to make them able to work in groups.
5. As they are not very good at cooking, special courses on cooking should be arranged in their educational institutions.
6. It is recommended that text books of elective subject like Economics must contain chapters and units related to planning and budgeting of homes.
7. Administration of universities should arrange special workshops for young girls as they need to be able how to do the house management.
8. Teachers should be trained to make their students more organized and good managers in universities and in homes as well.
9. Home management should also be included as a subject in the curricula of different departments in universities.
10. Seminars should be arranged for the parents, so that parents can realize that home management is very much important for their girls.
References


An Empirical Implementation of Markowitz Modern Portfolio Theory on Indonesia Sharia Equity Fund: A Case of Bahana Icon Syariah Mutual Fund

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ARTICLE DETAILS
History
Revised format: November 2020
Available Online: December 2020

Keywords
Sharia Equity Fund, Markowitz Modern Portfolio Theory, Risk-adjusted Return, Sharpe Ratio, Active Investment Strategy

JEL Classification
M4, M40

ABSTRACT
Bahana Icon Syariah, one of Bahana TCW’s mutual fund products, is less preferred by investors due to historical poor performance over the last five years compared to the reference index of Indonesia Sharia Stock Index (ISSI). Therefore, this study will evaluate and determine the optimal portfolio using the Markowitz’s Modern Portfolio Theory in four different market conditions – overall in the last five years, sideways, bullish, and bearish – with two variables, active and semi-active investment strategy. Data input refers to stocks that have always been recorded at least 80% in the Jakarta Islamic Index 30 (JII 30) and Jakarta Islamic Index 70 (JII 70) from October 2015 to October 2020. The findings reveal that active investment strategy is always superior to the semi-active under any form of market conditions. The results showed that there were 8 stocks worthy of being included in the portfolio, 4 stocks worthy of consideration, and 9 stocks worthy of being removed from the portfolio. The results are expected to be used and developed as one of the company's tools to obtain optimal portfolio returns.

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1. Introduction
According to World Economic Outlook: A Long and Difficult Ascent published by International Monetary Fund (IMF) in October 2020, the IMF has changed Indonesia’s economic growth forecast from 0.5 percent in June 2020 to shrink by 1.5 percent by the end of 2020. The downward revision for Indonesia is attributable to the ongoing spread of the pandemic and the adverse impact on severely affected sectors. Although social distancing will continue through 2021, the economy is expected to rebound as vaccine coverage has improved and government fiscal spending has been expanded. The rise
in commodity prices and accommodative fiscal and monetary policies would help lift the economy. In conclusion, the IMF forecast that the Indonesian economy will boost and expand by approximately 6.1 percent in 2021.

The correlation between economic growth and the stock market is a recurring question amongst investors and analysts. While several researchers believe that both numbers theoretically should be the same, others think that there is no connection at all. Park (1997) conducted research on the correlation between real rate of stock return (price appreciation and dividends) on S&P 500 Index stocks and five real macroeconomic variables, including annualized growth rates of nonfarm payrolls (employment), Gross Domestic Product (GDP), private investment, industrial production, and retail sales. The data included weekly, quarterly and annual data covering the 40 years between 1956 and 1995. Stock returns were found to be most negatively with employment growth and most positively to growth in GDP. With strong statistical and economic significance, GDP has positive coefficients. In one of the models, when GDP rises by 1 percentage point, stock return rises by 3.38 percentage points. Both statistical and economic significance are relatively poor for the other three variables. In order to analyze the effect of the shift in investment and the rate of GDP growth on Amman Stock Exchange (ASE) index for the period 1990 – 2009, Al-Abedallat and Al Shabib (2012) use statistical analysis and multiple regression. The research concluded that market movements on the ASE were affected by the movements of these two macroeconomic factors.

The cross-sectional correlation between the compounded actual return on equity and the compounded growth rate of real per capital GDP for 19 developed countries over the 112-year period beginning in 1900 and ending in 2011 is -0.39 (Dimson, Marsh, & Staunton, 2012). This negative correlation implies that investors were actually better off investing in companies in countries that have ended up experiencing lower economic growth per capital economic growth, rather than investing in countries with higher average per capita growth rates. Not only developed countries, but even emerging countries have witnessed this negative result. For 15 emerging markets over the 24-year period from 1988 to 2011 – including BRIC countries of Brazil, Russia, India, and China – the correlation is strikingly close to -0.41 (Ritter, 2012).

Setiawan (2020) reveals that the GDP and Indonesia Stock Exchange (IDX) Composite are significantly positive. In this analysis, the IDX Composite was taken from the closing index at the end of each year from 1999 to 2019 on the last trading day. The GDP constant price data for the same period was taken from the official website of the World Bank. To evaluate the effect of GDP on the stock market, multiple regressions were applied. The results show that every 1% rise in GDP will bring positive effect to Indonesia Stock Exchange (IDX) Composite as 1.03%. This is somewhat conflicted with the findings from Ritter (2012) that mentioned if GDP affects the stock market negatively. The findings of the experiments were somewhat contradictory, depending on the geographical areas and the time framework of the research.

According to Indonesia Central Securities Depository as of July 2020, the most significant growth in the number of investors lies in mutual fund instruments by 30.50%, followed by investors in state securities (21.09%) and stock investors (15.88%). A wider distribution channel is driving the growth of mutual fund investors, especially through the use of information technology, marketing campaigns, and more efficient in account opening. In general, mutual funds can be divided into money market, fixed income, equity, and a mixture of the three investment instruments. Money market funds invest only in debt securities with a maturity of less than one year, fixed income funds invest at least 80% of their investments in the form of debt securities, equity funds invest at least 80% of their assets in the form of stocks, while balanced funds invest in a combination of money markets, debt and equity instruments. The equity funds were the most related category of mutual funds to the growth of the Indonesia Stock Exchange (IDX) Composite out of the four classifications of mutual funds.
The comparison of the net asset value (NAV) of sharia and conventional mutual funds over the last 10 years is shown in Figure 1.1. As of October 2020, the NAV of the conventional mutual funds was much higher (IDR 458 Trillion) than the NAV of sharia mutual funds (IDR 72 Trillion). However, in the perspective of NAV performance as measured by the compounded annual growth rate (CAGR), the NAV growth in sharia mutual funds is much higher at 29.9% per annum compared to 12.3% in conventional mutual funds. The growth in the number of mutual fund investors and NAV in sharia mutual funds, supported by the prospect of Indonesia’s growth in 2021 is a golden opportunity for the asset management industry to offer their mutual fund products to investors.

Note: CAGR Sharia by 29.9%, CAGR Conventional by 12.3%
Source: Indonesia Financial Service Authority (as of October 2020)

Figure 1.1 The comparison of sharia’s NAV and conventional mutual funds

Bahana Icon Syariah, one of Bahana TCW’s sharia mutual fund products, is less preferred by investors due to historical poor performance over the last five years (Figure 1.2) compared to the reference index of Indonesia Sharia Stock Index (ISSI). The performance is not in line with the objective of actively managed investment funds to beat the benchmark index and obtain an optimal rate of return in the long-term through the majority investments in sharia stocks securities. It will be difficult for the company to promote Bahana Icon Syariah to potential investors. Therefore, this study will evaluate and determine the optimal portfolio for Bahana Icon Syariah using the modern portfolio theory concept developed by Harry Markowitz.

Figure 1.2 Bahana Icon Syariah performance

Source: PT Bareksa Portal Investasi

2. Literature Review
An American financial economist, Markowitz (1952) developed the modern portfolio theory in the article of Portfolio Selection, then later refined by Markowitz (1959). Generally, investors have two objectives, namely maximizing the expected value of returns and minimizing the risk. Markowitz explained that to minimize risk and still get a sizeable return, it can be done by forming a diversification of portfolio. On the basis of a return-risk (mean-variance) bi-criterion context and expected utility maximization, Markowitz introduced a portfolio optimization method. Markowitz attempted to fulfill this by creating two distinct approaches: by maintaining variance (risk) as constant and optimizing the expected return or keeping return as constant and minimizing variance to select the optimal portfolio. In fact, this contributed to the development of the modern portfolio theory (MPT). The concept introduced by MPT is still at the core of many modern approaches in asset allocation, risk management, and investment analysis.

The Markowitz model believes that investors are avers to risk. This implies that investors would choose the less risky one over two assets that deliver the same expected return. Thus, only when compensated by higher expected returns, investors will take on increased risk. The definition of Markowitz’s model is based on several assumptions relating to the behavior of investors and financial markets (Lee, Finnerty, & Chen, 2010):

1. For a given holding period, investors should predict the probability of the distribution of future returns.
2. In the sense of declining marginal utility of wealth, investors have single-period utility functions in which they optimize utility.
3. Investors use uncertainty in terms of potential return values to quantify risk.
4. Investors really think of the means and variance in the returns of their investments over a given period.
5. The first two moments of the probability distribution of returns are determined by the expected return and risk as used by investors-expected value and variance.
6. It is desirable to return, it is important to avoid risk.
7. There are frictionless capital markets.

2.1 Rate of Return
Rate of return is the amount of profit generated by an investment, calculated as a proportion of the amount of the initial investment. Investors depend on the rate of return of various investment options when determining where to invest their capital. The formula of rate of return is equivalent to formula (1) where \( P_t \) is the adjusted closing price at time \( t \).

\[
    r_t = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (1)
\]

The adjusted closing price is a measurement adjustment made to the closing price of a stock after accounting for certain corporate actions, such as dividends, stock splits, and right offerings. These adjustments allow investors to acquire an accurate record of the results of the stock.

2.2 Expected Return
The expected returns from an investment are calculated based on recent or historical performance. Due to the volatility of the future, the expected returns will differ considerably from historical returns. Therefore, no guarantee of the calculated expected returns is issued. The expected return (\( \mu_i \)) on asset \( i \) where \( i = 1, \ldots, n \) is determined by formula (2) where \( r_t^i \) is the return on asset \( i \) between periods \( t \) and \( t - 1 \) and \( m \) reflects the number of periods.

\[
    \mu_i = E(r^i) = \frac{\sum_{t=1}^{m} r_t^i}{m} \quad (2)
\]

2.3 Variance and Standard Deviation
Variance (\( \sigma^2 \)) corresponds to a mathematical calculation in a data collection of the spread between numbers. In fact, variance calculates the deviation from the mean of each number in the set and hence from every other number in the set. The variance on asset \( i \) is determined using the equation (3):
\( \sigma_i^2 = \text{Var} \left( r^i \right) = \frac{\sum_{t=1}^{m} (r_t^i - \mu_i)^2}{m-1} \)  

The standard deviation calculates a dataset’s dispersion in comparison to its mean and is measured as the variance’s square root. All uncertainty is determined by the standard deviation as risk. The higher risk between each price and the mean is shown by a high standard deviation. The formula (4) of standard deviation is as follows:

\[ \sigma_i = \sqrt{\sigma_i^2} = \sqrt{\frac{\sum_{t=1}^{m} (r_t^i - \mu_i)^2}{m-1}} \]  

### 2.4 Covariance

The directional relation between returns on two assets is measured by covariance which was determined by multiplying the association between the two variables by each variable’s standard deviation. A positive covariance indicates that returns from investments move together, while a negative covariance implies that they move inversely. In the return covariance matrix \((\Omega_{n \times n})\), dimensions of covariance are ordered. In its principal diagonal and covariance, the matrix (5) includes variances among all pairs of securities:

\[ \Omega_{n \times n} = \begin{pmatrix} \sigma_1^2 & \sigma_{12} & \cdots & \sigma_{1n} \\ \sigma_{21} & \sigma_2^2 & \cdots & \sigma_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \sigma_{n1} & \sigma_{n2} & \cdots & \sigma_n^2 \end{pmatrix} \]  

\[ \sigma_{ij} = \text{Cov} \left( r^i, r^j \right) = \frac{\sum_{t=1}^{m} (r_t^i - \mu_i)(r_t^j - \mu_j)}{m} \]

### 2.5 Expected Portfolio Return and Risk

Provided any number of volatile assets and a set of weights defining how the investment in the portfolio is divided, the general formula of expected return for \(n\) assets is equivalent to equation (6) where \(n\) is the number of shares, \(w_i\) is the proportion of the funds invested in security \(i\), \(r_i\) and \(r_p\) are the return on security \(i\) and portfolio \(p\), and the amount of \(w_i\) should equal to 1.

\[ E \left( r_p \right) = \sum_{i=1}^{n} w_i \ E(r_i) \]

The variance of the return of a portfolio (formula 7) consists of two elements: the weighted average of individual asset variance and the weighted covariance between individual asset pairs.

\[ \text{Var} \left( r_p \right) = \sigma_p^2 = \sum_{i=1}^{n} \sum_{j=1}^{n} w_i w_j \text{Cov} \left( r_i, r_j \right) \]

In terms of the correlation coefficient where \(p_{ij}\) is correlation coefficient between the rates of return on security \(i\) \((r_i)\) and the rates of return on security \(j\) \((r_j)\), covariance can also be represented as formula (8).

\[ \text{Cov} \left( r_p, r_j \right) = p_{ij} \sigma_i \sigma_j = \sigma_{ij} \]

### 2.6 Portfolio Efficient Frontier

The efficient frontier, which is the set of ideal portfolios providing the highest expected return for a certain risk level or the lowest risk for a given expected return level, is represented in Figure 2.1. A minimum variance portfolio (MVP) refers to a well-diversified portfolio composed of individual risky assets that when sold together are hedged, resulting in the lowest possible risk for the expected rate of return. The portfolio that is immediately above it on the upward sloping of the frontier curve dominates every portfolio on the downward sloping portion of the frontier curve since that portfolio has a higher expected return and an equivalent standard deviation (Chen, Chung, Ho, & Hsu, 2010). The best decision would focus on the ability of the investor to trade off risk against the expected return.
2.7 Sharpe Ratio
Sharpe (1966) implemented a portfolio performance metric that offers the risk premium per unit of overall risk, determined by the standard deviation of return ($\sigma_p$). On a portfolio structure, the risk premium ($r_p$) is the overall portfolio return minus the risk-free rate ($r_f$). Sharpe ratio ($S_p$) can be expressed:

$$S_p = \frac{E(r_p - r_f)}{\sigma_p}$$  \hspace{1cm} (9)

2.8 Prior Research
The literature review on the implementation of Markowitz’s modern portfolio in several developing countries, including Indonesia, Bulgaria, Malaysia, Thailand, and Vietnam is being reviewed. Research by Yuana, Topowijono and Azizah (2016) aims to find optimal portfolio of stocks that are listed in the Jakarta Islamic Index (JII) in the period of June 2013 to November 2015. There are several stocks which result in negative values based on the measurement of the expected rate of return. These stocks are not included in the next calculation because it is not possible to form an optimal portfolio. The results showed that there were seven stocks included in the optimal composition, including PT AKR Corporindo Tbk (AKRA), PT Astra Agro Lestari Tbk (AALI), PT Indofood CBP Sukses Makmur Tbk (ICBP), PT Kalbe Farma Tbk (KLBF), PT Unilever Indonesia Tbk (UNVR), and PT United Tractors Tbk (UNTR).

A practical analysis of the Markowitz model on the Bulgarian Stock Exchange (BSE) during the period from January 2013 to December 2016 is given by Ivanova and Dospatliev (2017). It was found from the data inputs, which are the weekly closing price of 50 shares exchanged on the BSE, the efficient portfolios created by the Markowitz model performed better than any domestic individual security. Investors are able to achieve optimum return on investment, maximum Sharpe ratio or minimum risk by engaging in optimum portfolios that situated on the efficient frontier. It is the force of diversification of Markowitz by seriously taking into consideration of covariance and asset correlation.

Vo et al. (2019) explores industry-level risk, return and portfolio diversification in four ASEAN member countries for which necessary information is available: Vietnam, Thailand, Malaysia, and Singapore. Market indexes for 10 sectors, covering numerous economic cycles from 2007 to 2016, including 2007-2009 (crisis), 2010-2012 (post-crisis), and 2013-2016 (normal), are analyzed. To measure extreme risk, Conditional value at risk (CVaR) is used. The risk-return method of Markowitz is utilized to assess the optimum weight of the portfolio sectors. Results from this research suggest the best-performing industry ranges across four countries. In Vietnam and Singapore, health care plays a dominant role. Consumer services are in first place in Thailand and Malaysia. This research offers additional evidence for policymakers to devise effective economic strategies that take advantage of the relative strengths of different industries in their economies.

3. Research Methodology
Primary data is the type of data collected directly on a personal level interview with equity analysts,
while secondary data is the data that has already been collected through primary sources and made readily available in the forms of previous research, annual reports, and web information from the Indonesia Stock Exchange, Indonesia Financial Services Authority, Yahoo Finance, Bloomberg, PT Bahana TCW Investment Management, and PT Bareksa Portal Investasi.

The performance of net asset value (NAV) of the Bahana Icon Syariah was evaluated in several market conditions, including overall condition over the last five years (October 2015 – October 2020), sideways (May – October 2018), bullish (October 2018 – February 2019), and bearish (December 2019 – March 2020). Stock screening analysis refers to:

a. Stocks that have always been recorded at least 80 percent in the Jakarta Islamic Index 30 (JII 30) and Jakarta Islamic Index 70 (JII 70) during the overall research period,
b. Stocks that are listed on the Indonesia Stock Exchange (IDX) for more than 1 year,
c. Stocks that have never had a track record of being suspended for more than one trading day,
d. Non-stocks that have a market value per share of IDR 50,
e. Stock performance shown by Sharpe ratio is positive and / or higher than the ISSI. The risk-free rate refers to the 1-year Bank of Indonesia rate at 5.25% as of 13 October 2020 (overall), at 7.00% as of 23 October 2018 (sideways), at 7.25% as of 21 February 2019 (bullish), and at 5.75% as of 19 March 2020 (bearish).

The most crucial stage is the transformation of raw data into the concept of modern portfolio theory, invented by Harry Markowitz. In this research, modern portfolio theory was elaborated with active and semi-active investment strategy using Solver tool in Microsoft Excel.

4. Results and Analysis
4.1 Stock Screening Analysis
Based on the prospectus, Bahana Icon Syariah may invest in this investment instruments:

- Minimum 80% and maximum 100% on sharia stocks listed in the Sharia Securities List,
- Minimum 0% and maximum 20% in cash equivalents and / or sharia money market instruments which represented by Bahana Likuid Syariah (BLS), the only company’s sharia money market fund product.

The results of the stock screening show that there are 31 stocks that have a better risk-adjusted return presented by Sharpe ratio than the reference index of ISSI during the five years of the research period. Of the 31 stocks, there are 14 stocks that are always in the portfolio of Bahana Icon Syariah with a percentage of more than 80% of the research period, including ASII, BRIS, CTRA, ICBP, INDF, INTP, KLBF, LSIP, PTBA, PWON, SMGR, TLKM, UNTR, and UNVR. The optimal portfolio construction in this condition consists of 31 sharia stocks and BLS.

Historically, Bahana Icon Syariah manages 27 - 30 stocks in a sideways period. As shown in Appendix B, there are 25 stocks that have a higher Sharpe ratio than the reference index and only 14 stocks have a positive Sharpe ratio. Ideally, a company only has to choose stocks that have a positive Sharpe ratio. However, in practical terms, the company manages a minimum of 27 stocks in the sideways period. Therefore, the portfolio construction consists of 27 sharia stocks and BLS. In a bullish condition, Bahana Icon Syariah manages 27 – 31 sharia stocks. There are 42 stocks that have a positive Sharpe ratio as seen in Appendix C, but only 7 stocks that have a better Sharpe ratio than the benchmark index. In this analysis, 31 stocks included in the ideal portfolio construction.

In the last five years, Bahana Icon Syariah has managed 26 - 32 stocks in a bearish situation. Appendix D reveals that there are 34 stocks that have better performance in terms of Sharpe ratio than the benchmark index, but only two stocks have a positive Sharpe ratio, namely KAEF and HRUM. On this occasion, 26 sharia stocks are used to form the most optimal portfolio in bearish conditions.

4.2 Active and Semi-active Investment Strategy
Generally, Bahana Icon Syariah is classified as a sharia mutual fund that carries an active investment
strategy. Investment managers will apply various ways to obtain returns that exceed market returns. The objective of an active strategy is to achieve a stock portfolio return that exceeds the stock portfolio return obtained through a passive strategy. After conducting interview with equity analyst, in fact, Bahana Icon Syariah implemented a semi-active strategy which is a combination of active and passive strategy. This strategy involves an enhanced index approach which designed for investors who want to outperform their benchmarks while carefully managing their portfolio’s risk exposure. The table 4.1 shows the weighting targets for the active investment strategy:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Historical (%)</th>
<th>Target (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td><strong>Stocks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>0.45</td>
<td>14.28</td>
</tr>
<tr>
<td>Sideways</td>
<td>0.45</td>
<td>13.31</td>
</tr>
<tr>
<td>Bullish</td>
<td>0.48</td>
<td>14.28</td>
</tr>
<tr>
<td>Bearish</td>
<td>0.51</td>
<td>10.34</td>
</tr>
<tr>
<td><strong>BLS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sideways</td>
<td>8.87</td>
<td>14.72</td>
</tr>
<tr>
<td>Bullish</td>
<td>7.46</td>
<td>15.02</td>
</tr>
<tr>
<td>Bearish</td>
<td>16.99</td>
<td>18.41</td>
</tr>
</tbody>
</table>

The weighting target in the table 4.1 is also a general target for the semi-active investment strategy, but there are some additional weighting targets for the top 10 stocks with the largest market cap in the Indonesia Sharia Stock Index as of 31 December 2019 which are reflected in the Table 4.2.

<table>
<thead>
<tr>
<th>Top 10 Market Cap in ISSI</th>
<th>Normal Weight (%)</th>
<th>Target (Min)</th>
<th>(80% Normal)</th>
<th>(120% Normal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLKM</td>
<td>10.50</td>
<td>8.40</td>
<td>12.60</td>
<td></td>
</tr>
<tr>
<td>UNVR</td>
<td>8.56</td>
<td>6.84</td>
<td>10.27</td>
<td></td>
</tr>
<tr>
<td>ASII</td>
<td>7.48</td>
<td>5.99</td>
<td>8.98</td>
<td></td>
</tr>
<tr>
<td>TPIA</td>
<td>4.94</td>
<td>3.95</td>
<td>5.93</td>
<td></td>
</tr>
<tr>
<td>BRPT</td>
<td>3.59</td>
<td>2.87</td>
<td>4.31</td>
<td></td>
</tr>
<tr>
<td>ICBP</td>
<td>3.47</td>
<td>2.78</td>
<td>4.17</td>
<td></td>
</tr>
<tr>
<td>CPIN</td>
<td>2.85</td>
<td>2.28</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>UNTR</td>
<td>2.14</td>
<td>1.71</td>
<td>2.57</td>
<td></td>
</tr>
<tr>
<td>KLB</td>
<td>2.03</td>
<td>1.62</td>
<td>2.43</td>
<td></td>
</tr>
<tr>
<td>SMGR</td>
<td>1.90</td>
<td>1.52</td>
<td>2.28</td>
<td></td>
</tr>
</tbody>
</table>

Both active and semi-active investment strategy uses the mean-variance analysis approach, covariance and correlation analysis, and Sharpe ratio as indicators that can be compared with the performance of the reference index. The difference is that the semi-active strategy always includes risk-adjusted return data for the top 10 constituents in the ISSI which are always listed on JII 30 and JII 70 even though during the period of research their performance was below the reference index and/or had a negative value.
4.3 Portfolio Optimization Construction

The MVP is not the predominant point to be used by investment managers, but the MVP will be the minimum point of reference that investment managers can select and consider. The investment manager
may select all points in the efficient frontier area according to the targets and objectives of the investors. However, what needs to be considered is that the higher the expected return, the higher the risk (standard deviation) that follows. The results of optimal portfolio construction using Markowitz’s Modern Portfolio Theory are summarized in Table 4.3.

### Table 4.3 Summary of portfolio optimization construction

<table>
<thead>
<tr>
<th>Market Conditions</th>
<th>Expected Return</th>
<th>Standard Deviation</th>
<th>Risk-free Rate (1Y BI Rate)</th>
<th>Sharpe Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekly</td>
<td>Yearly</td>
<td>Weekly</td>
<td>Yearly</td>
</tr>
<tr>
<td><strong>Overall (Oct ’15 – Oct ’20)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>0.91%</td>
<td>46.60%</td>
<td>3.17%</td>
<td>22.60%</td>
</tr>
<tr>
<td>Semi-Active</td>
<td>0.70%</td>
<td>35.90%</td>
<td>3.34%</td>
<td>23.80%</td>
</tr>
<tr>
<td>ISSI</td>
<td>0.07%</td>
<td>3.49%</td>
<td>2.21%</td>
<td>15.76%</td>
</tr>
<tr>
<td><strong>Sideways (May ’18 – Oct ’18)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>0.92%</td>
<td>46.80%</td>
<td>2.23%</td>
<td>15.90%</td>
</tr>
<tr>
<td>Semi-Active</td>
<td>0.63%</td>
<td>32.10%</td>
<td>2.33%</td>
<td>16.70%</td>
</tr>
<tr>
<td>ISSI</td>
<td>-0.03%</td>
<td>-0.47%</td>
<td>2.29%</td>
<td>16.32%</td>
</tr>
<tr>
<td><strong>Bullish (Oct ’18 – Feb ’19)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>1.78%</td>
<td>90.50%</td>
<td>0.56%</td>
<td>4.00%</td>
</tr>
<tr>
<td>Semi-Active</td>
<td>1.69%</td>
<td>86.00%</td>
<td>0.81%</td>
<td>5.80%</td>
</tr>
<tr>
<td>ISSI</td>
<td>0.61%</td>
<td>31.07%</td>
<td>1.10%</td>
<td>7.88%</td>
</tr>
<tr>
<td><strong>Bearish (Dec ’19 – Mar ’20)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>-0.03%</td>
<td>-1.40%</td>
<td>8.53%</td>
<td>60.90%</td>
</tr>
<tr>
<td>Semi-Active</td>
<td>-0.36%</td>
<td>-18.10%</td>
<td>7.82%</td>
<td>55.80%</td>
</tr>
<tr>
<td>ISSI</td>
<td>-2.14%</td>
<td>-105.01%</td>
<td>5.28%</td>
<td>37.72%</td>
</tr>
</tbody>
</table>

Table 4.3 provides a summary of the top 10 stocks in the optimal portfolio construction with a stock weight of more than the minimum weighting of 0.5 percent:

### Table 4.3 The top 10 stocks in the optimal weight-based portfolio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>BRPT, TPIA, BTPS, ACES, HRUM, PTBA, CPIN, JPFA, BRIS, MAPI</td>
<td>TPIA, BTPS, ACES, HRUM, PTBA, CPIN, JPFA, BRIS</td>
<td>BRPT, WTON, AKRA, RALS, TLKM, ICBP, INCO, MIKA, TPIA, CPIN</td>
<td>HRUM, KAEF, TLKM, UNVR, ASII, ICBP, INDF, TPIA, EXCL</td>
</tr>
<tr>
<td>Semi-Active</td>
<td>BTPS, CPIN, TLKM, LSIP, KAEF, ICBP, JPFA, PTBA</td>
<td>BTPS, CPIN, TLKM, LSIP, KAEF, ICBP, JPFA, PTBA</td>
<td>BRPT, WTON, AKRA, RALS, TLKM, ICBP, INCO, MIKA, TPIA, CPIN</td>
<td>HRUM, KAEF, TLKM, UNVR, ASII, ICBP, INDF, TPIA, EXCL</td>
</tr>
<tr>
<td>ISSI</td>
<td>BTPS, CPIN, TLKM, LSIP, KAEF, ICBP, JPFA, PTBA</td>
<td>BTPS, CPIN, TLKM, LSIP, KAEF, ICBP, JPFA, PTBA</td>
<td>BRPT, WTON, AKRA, RALS, TLKM, ICBP, INCO, MIKA, TPIA, CPIN</td>
<td>HRUM, KAEF, TLKM, UNVR, ASII, ICBP, INDF, TPIA, EXCL</td>
</tr>
</tbody>
</table>

#### 4.3.1 Overall Condition Overview
BRPT, TPIA, BTPS, ACES, and HRUM are always in two optimal portfolios on two different strategies. The five stocks are also not the 14 stocks that are always in the Bahana Icon Syariah portfolio with a percentage of more than 80% during the observation period. On the other hand, the stocks of BTPS, ACES, HRUM, PTBA, CPIN, JPFA, BRIS, and MAPI are eight stocks outside of ISSI’s top 10 market cap, but their performance is able to be present in the top 10 stock allocations in the active investment strategy.

#### 4.3.2 Sideways Condition Overview
In this condition, BTPS, TLKM, LSIP, KAEF, JPFA, and PTBA always exist in both investment strategies. Only BTPS, JPFA, and KAEF are not the 14 stocks that always exist in the Bahana Icon Syariah portfolio with a percentage of more than 80% during the observation period.

#### 4.3.3 Bullish Condition Overview
In the bullish condition, almost all stocks during the observation period performed well. BRPT, WTON, AKRA, RALS, and TLKM shares are always in the top 10 share allocations in two different investment strategies. Only TLKM is always in the Bahana Icon Syariah portfolio during the research period with a
4.3.4 Bearish Condition Overview
In this condition, almost all stocks experienced a significant contraction, only two stocks posted positive performance, namely KAEG and HRUM.

5. Conclusion and Recommendations
There are two things that can be concluded in this study:
1. The concept of Markowitz’s Modern Portfolio Theory can be applied to any type of market conditions because it always generates higher expected return and Sharpe ratio than the reference index.
2. In any type of market conditions, the active investment strategy is always superior to the semi-active investment strategy based on the Sharpe ratio.

The output of this research is to provide recommendations to investment managers using Markowitz's Modern Portfolio Theory. Recommendations are based on three criteria, in (stocks that are worthy of being included in the portfolio), watch list (stocks that are worth considering), and out (stocks that are worthy of being removed from the portfolio). In based on only top 10 stocks in overall condition, watch list based on top 10 stocks that are always listed in two strategies in bullish, sideways, and/or bearish conditions, and out based on the stocks that are not included in the 31 stock screening results in the overall condition.

<table>
<thead>
<tr>
<th>In</th>
<th>BRPT, TPIA, BTPS, ACES, HRUM, CPIN, JPFA, MAPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch list</td>
<td>AKRA, KAEG, RALS, WTON</td>
</tr>
<tr>
<td>Out</td>
<td>ADHI, ASRI, BSDE, IPCC, INTP, MIKA, PTPP, WIKA, WSBP</td>
</tr>
</tbody>
</table>

The recommendations above are only based on the results of research using the Modern Portfolio Theory concept in a specific time frame. Furthermore, investment managers are required to review these stocks using fundamental and technical approaches before deciding on an investment policy.

References


## Appendix A

**Overall stock screening result**

<table>
<thead>
<tr>
<th>No.</th>
<th>Stock's Code</th>
<th>Company's Name</th>
<th>Sharpe Ratio</th>
<th>No.</th>
<th>Stock's Code</th>
<th>Company's Name</th>
<th>Sharpe Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BRPT</td>
<td>PT Barito Pacific Tbk</td>
<td>1.38</td>
<td>18</td>
<td>ITMG</td>
<td>PT Indo Tambangraya Megah Tbk</td>
<td>0.28</td>
</tr>
<tr>
<td>2</td>
<td>TPIA</td>
<td>PT Chandra Asri Petrochemical Tbk</td>
<td>1.38</td>
<td>19</td>
<td>INDF</td>
<td>PT Indofood Sukses Makmur Tbk</td>
<td>0.27</td>
</tr>
<tr>
<td>3</td>
<td>BTPS</td>
<td>PT Bank BTPS Syariah Tbk</td>
<td>0.8</td>
<td>20</td>
<td>UNTR</td>
<td>PT United Tractors Tbk</td>
<td>0.26</td>
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<tr>
<td>4</td>
<td>JFFA</td>
<td>PT Japfa Comfeed Indonesia Tbk</td>
<td>0.68</td>
<td>21</td>
<td>RALS</td>
<td>PT Ramayana Lestari Sentosa Tbk</td>
<td>0.23</td>
</tr>
<tr>
<td>5</td>
<td>ACES</td>
<td>PT Ace Hardware Indonesia Tbk</td>
<td>0.65</td>
<td>22</td>
<td>PWON</td>
<td>PT Paluwon Jaya Tbk</td>
<td>0.19</td>
</tr>
<tr>
<td>6</td>
<td>KAEF</td>
<td>PT Kimia Farma Tbk</td>
<td>0.65</td>
<td>23</td>
<td>CTRA</td>
<td>PT Ciputra Development Tbk</td>
<td>0.17</td>
</tr>
<tr>
<td>7</td>
<td>PTBA</td>
<td>PT Bukit Asam Tbk</td>
<td>0.65</td>
<td>24</td>
<td>SMGR</td>
<td>PT Semra Indonesia Tbk</td>
<td>0.14</td>
</tr>
<tr>
<td>8</td>
<td>BRIS</td>
<td>PT Bank BRIsyariah Tbk</td>
<td>0.62</td>
<td>25</td>
<td>ASII</td>
<td>PT Astra International Tbk</td>
<td>0.13</td>
</tr>
<tr>
<td>9</td>
<td>CPIN</td>
<td>PT Charoen Pokphand Indonesia Tbk</td>
<td>0.58</td>
<td>26</td>
<td>KLBF</td>
<td>PT Kelbe Farma Tbk</td>
<td>0.12</td>
</tr>
<tr>
<td>10</td>
<td>ADRO</td>
<td>PT Adaro Energy Tbk</td>
<td>0.56</td>
<td>27</td>
<td>UNVR</td>
<td>PT Unilever Indonesia Tbk</td>
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<tr>
<td>11</td>
<td>HRUM</td>
<td>PT Harum Energy Tbk</td>
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<td>PT XL Axiata Tbk</td>
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<tr>
<td>12</td>
<td>ANIM</td>
<td>PT Aneka Tambang Tbk</td>
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<td>INTP</td>
<td>PT Indocement Tunjung Prakarsa Tbk</td>
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<td>DMAS</td>
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<td>LSIP</td>
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<tr>
<td>16</td>
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<td>PT Indofood CBP Sukses Makmur Tbk</td>
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<td>BLS</td>
<td>Banasa Likuid Syariah</td>
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<tr>
<td>17</td>
<td>INCO</td>
<td>PT Vale Indonesia Tbk</td>
<td>0.34</td>
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</tr>
</tbody>
</table>

## Appendix B

**Sideways stock screening result**

<table>
<thead>
<tr>
<th>No.</th>
<th>Stock's Code</th>
<th>Company's Name</th>
<th>Sharpe Ratio</th>
<th>No.</th>
<th>Stock's Code</th>
<th>Company's Name</th>
<th>Sharpe Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CPIN</td>
<td>PT Charoen Pokphand Indonesia Tbk</td>
<td>2.56</td>
<td>17</td>
<td>PWON</td>
<td>PT Pakuwon Jati Tbk</td>
<td>-0.13</td>
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<tr>
<td>2</td>
<td>BTPS</td>
<td>PT Bank BTPS Syariah Tbk</td>
<td>1.55</td>
<td>18</td>
<td>KLBF</td>
<td>PT Kelbe Farma Tbk</td>
<td>-0.23</td>
</tr>
<tr>
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<td>JFFA</td>
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<td>PT Astra International Tbk</td>
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<td>PT Kimia Farma Tbk</td>
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<td>CTRA</td>
<td>PT Ciputra Development Tbk</td>
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<td>LSIP</td>
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<td>AALI</td>
<td>PT Astra Agro Lestari Tbk</td>
<td>-0.52</td>
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<tr>
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<td>ACES</td>
<td>PT Ace Hardware Indonesia Tbk</td>
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<td>HRUM</td>
<td>PT Harum Energy Tbk</td>
<td>-0.54</td>
</tr>
<tr>
<td>10</td>
<td>TLKM</td>
<td>PT Telekomunikasi Indonesia Tbk</td>
<td>0.56</td>
<td>26</td>
<td>UNTR</td>
<td>PT United Tractors Tbk</td>
<td>-0.57</td>
</tr>
<tr>
<td>11</td>
<td>EXCL</td>
<td>PT XL Axiata Tbk</td>
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<td>BRPT</td>
<td>PT Barito Pacific Tbk</td>
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</tr>
<tr>
<td>12</td>
<td>SMGR</td>
<td>PT Semra Indonesia Tbk</td>
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<td>28</td>
<td>UNVR</td>
<td>PT Unilever Indonesia Tbk</td>
<td>-1.28</td>
</tr>
<tr>
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### Appendix C

**Bullish stock screening result**

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### Appendix D

**Bearish stock screening result**

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Have Moroccan National Accounting Council and Academic Researchers Overestimated the Benefits of Adopting IFRS?

1Khalifa Ahsina
1Associate Professor, Faculty of Economics, Ibn Zohr University, Ait Melloul, Morocco, k.ahsina@uiz.ac.ma

ABSTRACT

Purpose: In Morocco, the opening to IFRS standards was made in 2007 by the constraint of financial institutions to publish their financial statements according to IFRS standards. The aim of implementing IFRS accounting standards is to increase the relevance of accounting and its usefulness for stakeholders. However, the adoption of these standards often emanates from the requirements of international financial institutions which prescribe IFRS standards to be in harmony with those of developed countries. Following on from the question asked by Christensen in 2012, have the Moroccan National Accounting Council and academics researchers overestimated the benefits of adopting IFRS? Design/Methodology/Approach: Based on the price and return model developed by Amir et al (1993), our article aims to measure the effect of the implementation of IFRS on the relevance of Moroccan accounting. Findings: The results show that the adoption of IFRS does not bring value relevance compared to national accounting standards. The coefficients of determinations are low. Implications/Originality/Value: This study presents a scientific and managerial contribution on several levels. Indeed, for financial managers, accountants, and shareholders of listed companies, the implementation of IFRS does not have a significant impact on the quality of accounting figures. That being said, national accounts are as relevant in terms of quality as IFRS. It may be necessary to invest in other projects such as the modernization of accounting information systems to better manage financial reporting.

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Recommended citation: Ahsina, K. (2020). Have Moroccan national accounting council and academic researchers overestimated the benefits of adopting IFRS?. Journal of Accounting and Finance in Emerging Economies, 6(4), 1173-1179

1. Introduction

In the absence of an official chart of accounts in Morocco before 1992 and due to the poverty of economic and financial information generated by company accounts and its inadequacy to the economic
and social realities of the country, an "Accounting National Committee" was created in 1983.

This accounting framework, inspired by the 4th and 7th European directives, constituted a means of linking up with the movement of international accounting standardization and in particular in Europe. Also, in 2002, recommendations for improving the adopted accounting framework were formulated by experts from the World Bank as part of a report to assess compliance with standards and codes, particularly in the area of auditing and accounting. The report considers that the Moroccan accounting framework does not allow to reflect the real economic situation of companies.

As part of the process of international and European accounting standardization, the National Accounting Council has chosen to converge Moroccan accounting standards to IFRS standards. Or, thirteen years after their mandatory adoption in Morocco, IFRS (International Financial Reporting Standards) continue to feed the debates. The implementation of IFRS accounting standards aims to increase the relevance of accounting and its usefulness for stakeholders. However, the adoption of these standards often emanates from the requirements of international financial institutions which prescribe IFRS standards to be in harmony with those of developed countries. Following on from the question asked by Christensen in 2012, have the Moroccan National Accounting Council and academics researchers overestimated the benefits of adopting IFRS?

Much research has been carried out in developed countries to answer the question of the superiority of IFRS over national standards, but the answers remain ambiguous. On the other hand, Moroccan research is rare, which has focused on the question of research into the superiority of IFRS standards, hence the interest of this research. The plan of the article is as follows: the literature on the value relevance of IFRS standards will be proposed in the first section, then we will present the research methodology in the second section 2. In the third section, the results will be presented and we will discuss them. The results will be presented in the last section.

1.1 Value Relevance of IFRS: A Controversial Debate

This literature review attempts to highlight studies on the value relevance of IFRS about national accounting standards. Callao and Jarne (2007) as well as Barth and al. (2008), showed that the implementation of IFRS had the effect of improving financial information.

As with the limited empirical research on developing countries, according to Wallace (1990), empirical work on the relevance of international accounting standards for these nations is relatively minimal. Similarly, in some African countries, the results of the work of Chamisa (2000, Zimbabwe) indicate that the value of banks' equity and earnings are relatively more relevant under IFRS than under local accounting standards. Subramanyam (2007), unlike Barth et al (2008), found that the relevance of the value of German accounting standards is higher than that of IFRS. Likewise, Schiebel (2007) concludes with the same results of the superiority of German standards compared to IFRS standards. However, according to Bessieux and Walliset, (2017), to simplify structures and reduce costs, many companies in Europe have decided to abandon the IFRS accounting standards used and switch to national standards.
After this literature on the value relevance of IFRS compared to national accounting standards, we will now focus on the case of Moroccan companies. In this research on the Moroccan context, we will apply the model of Amir and al to assess the relevance of IFRS compared to the Moroccan accounting standard. Therefore, from this literature review we make the following hypotheses:

Hypothesis 1: the implementation of IFRS increases the quality of information on net income, Hypothesis 2: The adoption of IFRS improves the informational content of equity.

2. Research Methodology

To test the value relevance of IFRS, in the Moroccan context, we are studying the association between market profitability and net income according to Moroccan standards on the one hand and according to IFRS standards on the other. After a presentation of the models, we will describe our sample.

2.1 Price-Based Modeling

The price-based model takes the stock market price as the explained variable and the earnings and book value of equity as the explanatory value. Thus, the value of a business is a linear function of its profits and equity.

\[ P_{i,t} = \beta_0 + \beta_1 \text{BPA}_{i,t}^M + \beta_2 \text{BPA}_{i,t}^{\text{DIFF}} + \beta_3 \text{CPPA}_{j,t}^M + \beta_4 \text{CPPA}_{j,t}^{\text{DIFF}} + \epsilon_{i,t} \]

We therefore have, for each company i and according to year t: 

- \( P_{i,t} \): the stock price
- \( \text{BPA}_{i,t}^M \): earnings per share under Moroccan accounting
- \( \text{BPA}_{i,t}^{\text{DIFF}} \): the difference in earnings per share between IFRS and the Moroccan accounting
- \( \text{CPPA}_{j,t}^M \): equity per share adjusted to earnings per share under Moroccan accounting
- \( \text{CPPA}_{j,t}^{\text{DIFF}} \): the difference in adjusted equity per share between IFRS and the Moroccan accounting.
The adoption of IFRS is relevant for these companies, if the coefficients $\beta_2$ and $\beta_4$ are significantly different from 0.

2.2 Modeling Based on Return
According to this model, stock market profitability can be explained in a multivariate model which groups together net income and its variation, normalized by the price at the start of the period. Thus, the test of the relevance of net income according to the accounting standards applied results in the study of the association between market profitability and net income and its variation.

Thus, the empirical version of this model makes it possible to express the return as a function of the net income and the change in the net income of companies as follows:

$$R_{i,t} = \beta_0 + \beta_1 \frac{BPA_{i,t}^M}{P_{i,t-1}^M} + \beta_2 \frac{\Delta BPA_{i,t}^M}{P_{i,t-1}^M} + \beta_3 \frac{BPA_{i,t}^DIF}{P_{i,t-1}^DIF} + \varepsilon_{i,t}$$

We therefore have, for each company $i$ and according to year $t$:
- $R_{i,t}$: the stock market performance,
- $BPA_{i,t}^M$: earnings per share in Moroccan accounting,
- $\Delta BPA_{i,t}^M$: the change in earnings per share under Moroccan accounting,
- $BPA_{i,t}^DIF$: the difference in earnings per share between Ifrs and Moroccan accounting.

If the coefficient $\beta_3$ is statistically different from 0, then the IFRS is more relevant than the Moroccan accounting.

2.3 Sample Description
In the case of Morocco, the Moroccan accounting framework has remained frozen in the face of the changes induced by IFRS standards. The process of convergence of accounting standards with international standards (IFRS) has so far been limited to groups in the financial sector and listed companies. Our sample is made up of Moroccan companies listed on the Casablanca financial market and which have communicated for their transitional financial year their accounts according to Moroccan accounting standards and IFRS.

For the sake of consistency of conclusions, we limited ourselves to listed non-financial consolidating companies, therefore excluding credit institutions and the like. Our initial sample consisted of the 12 non-financial groups listed on the Casablanca financial market at the end of 2013. The rest of the fifty or so listed companies are non-consolidating companies. The accounting data for the year of the first application of IFRS were obtained either from the Casablanca financial market database, or from that of the Financial Markets Authority, or at the direct request of the financial services of the companies concerned.

The data compared in NCM could not be obtained for 3 groups in our sample (Afriquia Gaz, Maghreb Oxygène and Centrale laitière). For the other groups selected, it is important to point out that due to the optional nature of the application of IFRS standards, different dates have been retained for the analysis of the comparative financial statements. However, 2007 was the one that saw the greatest acceleration in the implementation of IFRS, since it was from this year that the Financial Markets Authority intensified its efforts to control the accounting publications of Moroccan companies and promote adoption of IFRS.

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<th>Table 2 - Data</th>
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<tbody>
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<td>Companies listed on the Casablanca financial market</td>
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</table>
According to the literature, we eliminated companies which have a particular accounting from our sample to obtain homogeneous companies.

3. Empirical Results
We will first present the results of the modeling based on prices, then in a second step that on profitability, the objective is to analyze the value relevance of the adoption of IFRS on equity and profits.

3.1 The Value Relevance through Pricing Models
In this section, we present the results of the value relevance of IFRS and Moroccan accounting through models based on prices and profits.

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<th>Table 3. Price-based modeling</th>
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We observe that in Model 1 which is based on Moroccan accounting data, that indeed there is a positive association between stock price and profits and a negative association with equity. But these coefficients are not statistically significant.

We also observe that there is no difference in terms of quality between Moroccan accounting and IFRS. Adding other variables to Model 3, results in a small improvement in the coefficient of determination $R^2$.

3.2 Modeling Based on Stock Return
In the latter model, in accordance with the literature, earnings per share are weakly associated with stock market performance. We also found that the relationship between profit variation and stock market performance is insignificant. In line with the literature, these results confirm the alternative hypothesis according to which there is no significant difference between Moroccan accounting and IFRS compared to accounting quality.
Table 4. Modeling Results Based on Stock Returns

<table>
<thead>
<tr>
<th></th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized coefficients</td>
<td>Sig.</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.01</td>
<td>0.96</td>
</tr>
<tr>
<td>BPA_{i,t}M Pi_{t-1}</td>
<td>0.02</td>
<td>0.51</td>
</tr>
<tr>
<td>ΔBPA_{i,t}M Pi_{t-1}</td>
<td>0.047</td>
<td>0.69</td>
</tr>
<tr>
<td>BPA_{i,t}DIF Pi_{t-1}</td>
<td>-0.006</td>
<td>-</td>
</tr>
<tr>
<td>R²</td>
<td>8.77%</td>
<td></td>
</tr>
</tbody>
</table>

4. Conclusion and Discussion
This article aimed to find out whether the adoption of IFRS will provide more relevant information compared to the Moroccan accounting of listed companies. We selected a sample of 9 companies listed on the Moroccan financial market and we used the model of Amir and al, in our research methodology. According to Niskanen, and al as well as Vafaei, the results of this research showed the low-value relevance of IFRS compared to Moroccan accounting standards. However, the results obtained cannot overshadow the gaps associated with it.

In the first order, the small size of the sample. To resolve this problem, it is advisable to widen the study sample by integrating commercial companies or service providers while considering sector specificities. In the second-order, the use of multiple regressions imposes constraints on compliance with the assumptions of multi normality of the explanatory variables, which influences the quality of the model. The use of PLS regression is an interesting line of research because it tolerates such conditions. However, this study presents a scientific and managerial contribution on several levels. Indeed, for financial managers, accountants, and shareholders of listed companies, the implementation of IFRS does not have a significant impact on the quality of accounting figures. That being said, national accounts are as relevant in terms of quality as IFRS. It may be necessary to invest in other projects such as the modernization of accounting information systems to better manage financial reporting.

References
Christensen H., « Why do firms rarely adopt IFRS voluntarily? Academic find significant benefits and
Financial Sustainability and Financial Performance: The Moderating Role of Type of Ownership in Pakistan

Sarah Ahmed, S.M.Ali Tirmizi

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2Assistant Professor, Foundation University Islamabad, Pakistan

ARTICLE DETAILS

| History | The study is conducted with the objective to investigate the impact of firm performance (FP) on financial sustainability (FS) in a developing nation, Pakistan and additionally to see the moderating role of type of ownership i.e. Institutional Ownership (IO) or Managerial Ownership (MO) in the FP-FS relationship. Sample of the study included all the non-financial firms listed on Pakistan Stock Exchange PSX and time covered is from 2009-2018. In total there are 2734 observations. Empirical results of the study suggests that FP has a positive relationship with FS but the relation is not significant. Moreover, findings indicate this relationship is significantly negatively moderated by Intuitional Ownership (IO) whereas the relationship is not significant under the moderation impact of Managerial Ownership (MO). |
| Keywords | Financial Sustainability, Firm Performance, Managerial Ownership, Institutional Ownership, moderation. |
| JEL Classification: | M40, M41 |

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1. Introduction

At the present time, companies are demanded to operate in a sustainable manner in order to return more to the society in the form of better society, environment or financial input. Corporate sustainability studies are increasing in the literature. Moreover, it is difficult to go through a company’s reports or websites without the reference to sustainable development or sustainability (Montiel & Delgado-Ceballos, 2014). Corporate sustainability has three dimensions i.e. social, environmental and economic aspect (Accenture, 2011). Financial sustainability of a company is related to the economic aspect of corporate sustainability. Financial sustainability is derived from the principle of value maximization for stakeholders by investing in best possible investments with an acceptable level of risk (Zabolotnyy & Wasilewski, 2019). By applying the concept of sustainability, organizations are trying to cope up with
the ups and down of economic development and organization of resources in the long term. Concept of financial sustainability is relatively recent in the literature (Lagoarde-Segot & Paranque, 2018). Financial sustainability of a firm is defined as the potential to provide continuity of activities and to create value for owners in the long term, using optimal combination of investment and sources of financing (Zabolotnyy & Wasilewski, 2019). The concept of financial sustainability caters the going concern principle of accounting and value maximization for stakeholders.

Despite many studies have been conducted to analyze the correlation between firm performance and corporate sustainability there is lack of research focused on evaluation of financial sustainability on firm level (Diantimala, 2018). Moreover, importance of corporate governance factors for this relationship remains under investigative as well (Peng & Yang, 2014). Studies related to moderating role of corporate governance are still unclear (Harjoto & Jo, 2011). In this study, we focus on one aspect of corporate governance i.e. type of ownership: Institutional Ownership (IO) or Managerial Ownership (MO) and attempt to investigate how ownership as a moderator would affect the FP-FS relationship and in which direction.

This study is conducted in a developing country of Pakistan, as it is evident from the literature that studies about financial sustainability and sustainability in general, related to developing nations are very limited and there is a need to conduct such studies in developing countries (Grewatsch & Kleindienst, 2017) the direction of the relationship could be different from developed nations. Moreover, ownership type demands further investigation because of the agency problem which arise due to conflict of interest between the management and the shareholders in emerging markets (Claessens, Djankov, Fan, & Lang, 2002).

This study focuses on Pakistan, which is a developing country where there is weak protection for shareholders, problems related to corporate governance due to lack of transparency and ownership issues (Ararat & Ugur, 2003). This can result in difference in direction of the developing country from a developed country. In country like Pakistan, government is more focused on developing policies to improve the current situation of the economy rather than long term impact. Research has shown that in a developing country low future orientation can have negative impact on firms in the longer run (Ararat, 2008). This study is expected to contribute towards the literature by: providing empirical data of FS-FP relationship, impact of corporate governance as a moderator in the FS-FP relationship. Thus the empirical analysis would be beneficial for policy implications, managers, and academicians. The rest of the paper is arranged as follows: the second section gives a review of the literature, third section explains the methodology used in this paper whereas results are provided in the fourth section. Lastly, paper concludes with the findings, limitation and future implications.

2. Review of Literature

Corporate governance, as the previous literature reveals has been studied numerous times, as a channel through which sustainability is influenced by firm performance. Number of proxies are used to measure corporate governance like CEO power (Li, Li, & Minor, 2016), governance structure’s (Giroud & Mueller, 2011), mutual monitoring (Li Z., 2014), CEO tournament (Coles, Li, & Wang, 2017), compensation incentives (Core & Guay, 1999), corporate governance policies (Auras & Crowther, 2008) in the studies related to CSR, sustainability, corporate sustainability. A study conducted in Kenya on Micro Finance Institutions reveals that board size, CEO duality, composition of board and CEO gender have significant impact on financial sustainability of the institutions (Chenuos, Mohamed, & Bitok, 2014). Corporate governance is associated with the procedures, processes, and practices through which organizations operate. These rules and procedures are to be followed and the manner in which they are followed determine the corporate governance of an organization. Goals of good governance are to use the resources in such an efficient manner that the interest of corporates are aligned with the interest of the society and the other stakeholders. Therefore, corporate governance is the connection between internal governance mechanisms of corporates and the society’s way to make the corporate accountable
Long term endurance has become a challenge for every firm whether small, medium or a corporate, how businesses may respond to this challenge is very important for them to answer (Krechovska & Prochazkova, 2014). Sustainability is the strategy for long term sustenance of the organizations comprising of three dimension i.e. economic, social and environmental. It has also been emphasized by some authors that economic dimension is the most desirable of the three as it makes the organizations financially strong and would avoid situations leading towards bankruptcy or shut down (Szekely & Knirsch, 2005), (Gupta & V. Kumar, 2013). Financial sustainability is covering the economic dimension of sustainability which is when a firm creates value for its stakeholder by maximizing the profits and minimizing the impact on the society. Researches have agreed on the multifaceted nature of financial sustainability, as it is linked to solvency, profitability and efficiency of an organization whether private or public (Diakoulaki, Mavrotas, & Papayannakis, 1992), (Gryglewicz, 2011). Another study suggest that financial sustainability is about the financial viability or strength of the firm and it has a board spectrum when compared to firm performance (Matson, Thayer, & Shaw, 2016). Numerous research studies have been conducted in this regard but there is still lack of research directed towards the methodology or measure of financial sustainability on a firm level (Zabolotnyy & Wasilewski, 2019), (Jordão & Almeida, 2017).

There is no confirmed direction of firm performance and sustainability relationship, it differs in different cultures and economic conditions, therefore there is no universally accepted direction of this relationship (Goyal, Rahman, & Kazmi, 2013). Moreover, empirical evidence from developing and emerging countries is limited in literature (Grewatsch & Kleindienst, 2017). Corporates are now improving their performance by striving for long term benefits (Chabowski, Mena, & Gonzalez-Padron, 2011). Commitment of an organization for long term survival has now a strategic level importance and society expects an organization to live as a better citizen (Orsato, 2006).

In the context of a developing country, studies related to financial sustainability and corporate are limited and mainly conducted on financial sector (Rauf & Mahmood, 2009), NGOs (Hussain, Shaheen, & Shahid, 2018).

### 3. Methodology

#### 3.1 Sample and Data

The population of this research is the non-financial sector of Pakistan, which consist of around 400 firms. Data was collected from 2010 till 2019. Data was extracted from financial statements of these firms which are listed with Pakistan Stock Exchange PSX. Firms with missing data were removed from the sample which reduced the data to 281 firms and 2734 observations for the sample period.

#### 3.2 Variables

The dependent variable was financial sustainability calculated by Sustainable Growth Ratio (SGR) as calculated by (Amouzesh, Moeinfar, & Mousavi, 2011). Independent variable in the study is firm performance which is measured by Tobin Q ratio. Type of ownership is taken as a moderator in the study. There are two types of ownership: Managerial ownership (MO) and Institutional Ownership (IO). Data regarding these variables were collected from financial statements. For Control variables of the study log of firm age was taken.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGR</td>
<td>The rate of growth that a company can expect to see in the long term calculated by multiplying a company’s earnings retention rate by its return on equity.</td>
</tr>
<tr>
<td>Tobin Q</td>
<td>The Q ratio, also known as Tobin's Q, equals the market value of a company</td>
</tr>
</tbody>
</table>
3.3 Model
To test the hypotheses of the study following model was developed:

$$SGR_{it} = \beta_0 + \beta_1 FP_{it} + \beta_2 FP_{it} \times MO_{it} + \beta_3 X_{it} + \epsilon_{it}$$  \hspace{1cm} \text{equation 1}

$$SGR_{it} = \beta_0 + \beta_1 FP_{it} + \beta_2 FP_{it} \times IO_{it} + \beta_3 X_{it} + \epsilon_{it}$$  \hspace{1cm} \text{equation 2}

Where SGR (Sustainable Growth Rate Ratio) is the measure used to calculate the financial sustainability of the firm following (Amouzesh, Moeinifar, & Mousavi, 2011). It is calculated by the following formula:

$$SGR = \text{Retention Ratio} \times \text{Return on Earnings}$$

Whereas:

- Retention ratio = Retained earnings/Net income *100
- ROE = Net Income / Shareholders Equity

FP is the firm performance calculated through Tobin’s Q. Formula for Tobin’s Q is as follows:

$$\text{Tobin's Q} = \frac{\text{Equity Market value} + \text{Liability Market Value}}{\text{Total Asset Replacement Value}}.$$ 

MO is the managerial ownership which is derived from the annual financial data of each company. IO is the institutional ownership which is derived from the annual financial data of each company. FP X MO and FP X IO are the interaction terms used to calculate the moderating impact of ownership type on FP and FS relationship. X denotes the control variable which the log of firm age of the firm $i$ in year $t$. $\beta_1$, $\beta_2$, $\beta_3$ are the vectors of the measures to be calculated and $\epsilon$ is the error term.

4. Results
The following table shows the descriptive statistics of the variables of interest. Table shows the mean, normality of the data and the standard deviation along with the number of observations.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Std. Dev</th>
<th>Obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>19843473</td>
<td>1.047823</td>
<td>6.306894</td>
<td>8.38</td>
<td>1844</td>
</tr>
<tr>
<td>Log Firm Age</td>
<td>2.804224</td>
<td>-1.24746</td>
<td>3.088403</td>
<td>0.497</td>
<td>2870</td>
</tr>
<tr>
<td>FP</td>
<td>231000000</td>
<td>1.977534</td>
<td>4.421431</td>
<td>15.125</td>
<td>2734</td>
</tr>
<tr>
<td>MO</td>
<td>10207107</td>
<td>1.035595</td>
<td>1.447254</td>
<td>1.28</td>
<td>2870</td>
</tr>
<tr>
<td>SGR</td>
<td>872944.2</td>
<td>1.077137</td>
<td>1.796717</td>
<td>15.366</td>
<td>2631</td>
</tr>
</tbody>
</table>

Table 3 shows the Panel Least Squares, regression results for FP-FS relationship:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-2.17</td>
<td>1.97</td>
<td>-1.11</td>
<td>0.27</td>
</tr>
<tr>
<td>FP</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.77</td>
<td>0.44</td>
</tr>
<tr>
<td>FP X IO</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.79</td>
<td>0.00</td>
</tr>
<tr>
<td>FP X MO</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.03</td>
<td>0.98</td>
</tr>
<tr>
<td>FIRM_AGE__LOG_AGE_</td>
<td>0.79</td>
<td>0.68</td>
<td>1.16</td>
<td>0.24</td>
</tr>
</tbody>
</table>
The relationship between FP-FS is insignificant and negatively related. Therefore, FP has an insignificant impact on FS, showing if the firms performing better financially does not imply that it would get financial sustainability. Institutional ownership has a significant impact on the FP-FS relationship but the negative direction which shows that if the IO increases the FS would reduce. Moreover, it shows if shares of a firm are owned by other institutions it would have negative impact on its financial sustainability. MO does not have a significant on FP-FS relationship.

5. Conclusion
Limited number of studies have investigated the moderators for FP-FS relationship, this area need more research. In the context of a developing country the role of corporate governance factors affecting FP-FS is again limited (Zabolotnyy & Wasilewski, 2019), (Akben-Selcuk, 2019). This research was conducted with a purpose to fill the gap and to investigate the FP-FS relationship in the presence of a type of ownership as a moderator.

Findings from the study shows that there is no significant relationship between FP-FS in the non-financial firms in Pakistan. The sample had all the firms listed on PSX for the time period of 10 years from 2010-2019. This result supports the Neoclassical theory of the firm, which states that the main objective of the firm is to maximize profit. Backing the conventional theory of economics, the result supports that the main objective of a corporate is to earn profit and increase the worth of its shareholders. A study conducted in Turkey also showed that ownership has a negative impact on FP-CSR relationship (Akben-Selcuk, 2019).

Another result from the study shows that ownership type has a negative but significant impact on FP-FS relationship in the form of IO as a moderator whereas it is insignificant in case of MO as the moderator between FP-FS relationship. The result is consistent with the empirical findings from (Peng & Yang, 2014), (Ting & Yin, 2018). The findings of the study would certainly add to the limited existing literature. Moreover, the negative affect of IO as a moderator would help the corporates to reduce IO in order to strengthen the value for shareholders. Findings can also help the policy makers, who are making policies for the corporates in the emerging countries. However, the study has also some limitations, firstly, data is collected from non-financial sectors only financial sectors could be included in the future studies for an overall view of the firms working in a country. Secondly, this study is conducted on data from a single country, Pakistan, more comprehensive study could be conducted in future by using data from more than one country.

**Funding:** This research received no external funding.

**Conflicts of interest:** The author declare no conflict of interest.

**References**


Drivers of Stock Market Growth in Pakistan: How Relevant is Irrelevant?

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ARTICLE DETAILS

Purpose: Pakistan’s stock market has experienced severe downside volatility after its classification in MSCI’s emerging market index in 2016. Global pandemic, political instability and capital limitations through money laundering control mechanisms have exposed the foundations of capital allocation to an escalating risk of default. The situation prerequisites a review of contentious relationship between drivers of economic growth and stock market expansion. This paper seeks to examine the relationship between non-financial and banal drivers of economic growth and their relative impact on stock market development in Pakistan, building on the fact that financial market development is a direct outcome of economic growth and development of the generic capabilities of production and capital formation through profit trails. Design/Methodology/Approach: ARDL approach is used to analyze the contribution of capital formation and allocation through generic productivity and risk allocation mechanism. The paper discusses GDP growth, Gross fixed capital formation, Private credit and use of IMF credit as instrumental in determining stock market expansion. Implications/Originality/Value: Originality of the research transpires from the fact that key outputs of real sector have been added to analyze the development of financial market which have long been ignored as extraneous for empirical analysis.

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1. Introduction

Stock markets may be considered the economic pulse of a country. In the start of year 2019 it was expected that Pakistan, a developing country facing flagging growth, war on terror, regime change inspired political instability, and money laundering allegations, would be downgraded from Emerging
Market Index of Morgan Stanley Capital International (MSCI) to the Frontier Market Index. The semi-annual index review committee found performance of the listed large and mid-cap stocks as uninspiring however, Pakistan was indorsed to retain its position in the Emerging Market Index till further review.

The dismal market performance was attributed to high volatility and low free float market capitalization, falling short of the minimum standards for MSCI. This was contrary to the expectations of $around $500 million from a total of 1.5-$1.7 trillion in passive portfolio investment influx, forecasted in 2017 (MSCI, 2019). With Covid-19 pandemic hitting in first quarter of 2020, the stock markets took a nosedive losing millions for individual and institutional investors. Dismal economic forecasts loom over a highly volatile stock market with steep decline in annualized returns. The scenario brings attention back to the question regarding nexus of financial markets and economic growth and causal inference acclimatizing the capacity building stipulations. Building capacity in the stock market (Mora & Logan, 2010) will essentially require stabilization of macroeconomic indicators like currency flows, capital accounts FATF regulations, political stability, interest rates, inflation and others. Government expenditures (Rahman et al., 2017), allocation efficiency of capital inflows and physical capital formation generated by real sector (primary sector) contribution to the economy were generally ignored in studies concentrated on financial market growth and expansion, considering fiscal and financial issues different from real time growth recce (Wu et al., 2010). At present, Pakistan is facing the risk of default on debt servicing and other international payments due on Euro bonds and Ijara Sukuk. The economic growth and stock market development nexus gets more complicated under the conditions of default, extending the debate started b Goldsmith (1969) contending the financial sector development as a function of demand and supply of funds. Demigurc Kunt & Levine (1996) were the first to discuss the reverse causality of stock market development with economic growth with financial sector liberalization as a mediating variable. The capacity building of stock market may prompt economic recuperation that Pakistan is so desperately searching for. This paper seeks to identify the drivers of stock market development from real sector, adjusted for risk premium and capital allocation efficacy for economic growth and development. The paper is structured in four sections. First section deals with introduction and background, followed by the second section on stock market expansion literature and capacity building. The third section deals with empirical specification of variables of interest and the fourth section presents the discussion on results and findings.

2. Stock market expansion and capacity building for economic development (Buffet ratio)
The financial markets and growth linkage is theoretically verifiable if not empirically validated (Levine, 1997), however causality is contentious with advocates of theory of financial intermediation and financial deepening (Rousseau & Watchel, 2000). The evidence supporting reverse causality between
economic growth and financial markets has grown stronger in the last few years (Beck & Levine, 2004), resonant of changing equations in developing economies and their relative degree of financial liberalization (Graff, 2003). Depth of financial markets is prevalently analyzed by the valuation measure profoundly known as the Warren Buffet ratio. The ratio was identified as the only sound measure of stock market growth and development by the American investor (Bayraktar, 2014). Stock market capitalization to Gross Domestic Product ratio (Buffet ratio) has been useful in cross country comparisons of financial market strength and development as well as capacity building measures (Barajas, Chami & Yousefi, 2013).

![Figure 2.1 Trends in Stock market capitalization to GDP ratio](image)

Economists and researchers in finance have long since debating the role of real sectors (primary) sectors in the economic development. The supply and demand theory of funds also postulate the same view where real sectors represented major demand of funds as well sources of supply through rent and profit extraction. The link towards equity generation from stock market is yet unexplored. King & Levine (1993) identify stock market development and growth as a major factor in economic development of a country with services such as risk arbitrage, financial inclusion, liquidity provision and diversification. This cavalcade of research findings has periodically been fenced by financial, political and endemic crisis, to the extent to cause serious dubieties in vital correlations (Wang, 2010).

The popularly impugned drivers for stock market growth and development as reced from studies in the area of economics and finance include Gross Domestic Product (GDP), described as value of total product and services output for the year. Theoretical and empirical studies have confirmed GDP growth rate as robust indicator of growth of financial markets (Levine, 2010). GDP is calculated at market price with its annual growth percentage. GDP is the sum of gross value added by all resident producers in the economy adjusted for taxes and subsidies. The growing importance of stock markets in the recent times made it imperative to thoroughly research the link between stock market development and GDP growth, discounting the impact of relevant macroeconomic factors like foreign exchange and inflation (Arestis, Demetriades & Luintel, 2001). The bi-causal nature of relationship between stock market development and GDP growth was identified by Mukherjee & Bose (2008), postulating that propounding liquidity provided by capital markets played a vital role in enhancing the propensity to save and invest. It is argued that capital allocation is the focal function of the stock markets which enables to channel excess from savers to the deficient sectors. Study of literature presents four perspectives on the stock market and growth relationship. The supply led growth theory suggests economic development is dependent on stock market growth (Levine, 2005). The demand led theory of economic growth suggests that economic development fosters stock market growth (Wang, 2010). The third perspective on stock market development and economic growth postulates that both have an interdependent relationship (Mukherjee & Bose, 2008). Finally, some studies are inconclusive on relationship between stock market growth and economic growth and development, citing it as an arbitrary correlation (Zegada, 2011). According to Arcand et al (2005) economies can either be classified as deep finance sector economies with a well-developed banking sector or market-based economies with a well-balanced stock market and liquidity plays the role of a catalyst in both (Levine, 1997).
3. Model specification
The drivers of stock market development and expansion recce from the past studies include GDP annual growth rate expressed as gross value of output of resident producers adjusted for taxes and subsidies. Leading economic sectors can also be helpful in determining the demand of funds (Wang, 2010). The supply theory of funds postulates that causal relationship is directed from interest rates and exchange rates to economic development. Alghamedi, (2012) identified Gross Fixed Assets as a proxy criterion for economic growth in a country, which may result in capital market expansion.

Figure 2.2 Time series analysis of Macroeconomic variables
The Global Financial Development Database (GFDD) uses risk premium on lending as a common measure for financial deepening of a country. Agriculture sector’s growth on annual basis inclusive of forestry, fishing, hunting, cultivation premium on crops and livestock as means of sustenance of an agrarian economy (Wang, 2010). The origin of value added is determined by the International Standard Industrial Classification (ISIC). Crop production index represents not only the source of funds but potential future usage through financial inclusion. Average annual growth of gross fixed assets exhibits total capital formation in an economy and potential financial stability through the capital backup (Levine, 2005). Total reserves and use of IMF credit are factors that may bring downward pressures on a developing economy (Zegada, 2011). Compared to the other emerging economies classified in MSCI index, the macroeconomic variables for study perform worse over time in relation to market capitalization to GDP ratio (Buffet indicator). Gross Capital Formation has been declining in the past few years. The slide begun after the Global Financial Crisis, where many of the related economies were hit severely. Since 2009 and before, Pakistan has been dependent on international grants and IMF’s structural adjustment programs. In such a situation with heavy debt servicing and massive international payments, maintaining the value of dollar and the amount of foreign exchange has always been challenging for the incumbent Governments. Market Cap to GDP or the Buffet indicator is a financial sector value measure for a market-based developing economy used by GFDD, described as follows:

\[
\text{Market Cap/GDP ratio} = \left( \frac{\text{Market Capitalization}}{\text{GDP of an economy}} \right) \times 100
\]

The actual growth of an economy may be dependent upon type and variety of financing available as may
as well propel future growth by adding to the capacity of these investment channels.

4. Empirical results
Data used were derived from Global Financial Development Database (DFDD) for the 15 years from 2003 to 2017. Normality tests were run on the data to determine normal distribution. This study makes use of Market Capitalization to GDP ratio ($MKT\ CAP$) as the dependent variable and Agriculture & Forestry ($AF$), Crop Production Index ($CPRI$), Current account balance ($CAB$), Domestic Credit Provided ($DCP$), GDP growth rate ($GR$), Gross fixed capital formation ($GFCF$), Risk premium ($RPL$), Total reserves ($TL$) and Use of IMF credit ($UIC$) as dependent variables. All variables were chosen for their theoretical and rhetoric relevance.

$$MKT\ CAP = \alpha + \beta_1 CPRI + \beta_2 AF + \beta_3 CAB + \beta_4 DCP + \beta_5 GR + \beta_6 GFCF + \beta_7 RPL + \beta_8 TR + \beta_9 UIC + \epsilon$$

Ordinary Least Squares (OLS) was run on the data to establish causal relationship through regression. The adjusted $R^2$ of 0.929 showed a good fit, thereby strong predictive capacity of the model. Regressing the independent variables further of Market Cap to GDP, two of the predictors, GFCF and UIC turn significant while adjusted $R^2$ didn’t show much change.

R-squared 0.98  Mean dependent var 27.87
Adjusted R-squared 0.93  S.D. dependent var 11.48
S.E. of regression 2.96  Durbin-Watson stat 2.73

The results show that Gross fixed asset formation and domestic credit provided were significant for stock market expansion at the percentage of 10% and 5% respectively.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>21.59</td>
<td>36.92</td>
</tr>
<tr>
<td>CPRI</td>
<td>-0.46</td>
<td>(0.15) 0.20</td>
</tr>
<tr>
<td>AF</td>
<td>1.45</td>
<td>(0.35) 1.29</td>
</tr>
<tr>
<td>CAB</td>
<td>2.31</td>
<td>(0.19) 1.14</td>
</tr>
<tr>
<td>DCP</td>
<td>1.42</td>
<td>(0.18) 0.62</td>
</tr>
<tr>
<td>GR</td>
<td>0.05</td>
<td>(0.99) 2.25</td>
</tr>
<tr>
<td>GFCF</td>
<td>-0.69</td>
<td>(0.07) 0.19</td>
</tr>
<tr>
<td>RPL</td>
<td>-0.79</td>
<td>(0.66) 1.60</td>
</tr>
<tr>
<td>TR</td>
<td>1.32E-09</td>
<td>(0.07) 3.98E-10</td>
</tr>
<tr>
<td>UIC</td>
<td>-3.94E-09</td>
<td>(0.05) 1.35E-09</td>
</tr>
</tbody>
</table>
Figure 4.1 OLS Fit.

Pesaran, Shin & Smith (2001) have supported Autoregressive distributed lag model (ARDL) as an appropriate technique to investigate the problem where lagged values of the variables are used as instruments to define and account for endogeneity relative to stock market movements.

Table 4.3 ARDL bound test for long term relationship

<table>
<thead>
<tr>
<th>$H_0$: No cointegration</th>
<th>Value</th>
<th>5% Critical Bounds</th>
<th>1% Critical Bounds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I(0)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Computed F-Statistic</td>
<td>5.315</td>
<td>2.34</td>
<td>3.17</td>
</tr>
</tbody>
</table>

Table 4.4 ARDL Estimation Results

<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>∆AF</td>
<td>2.134</td>
<td>0.633</td>
<td>3.231</td>
<td>0.017</td>
</tr>
<tr>
<td>∆CPRI</td>
<td>-0.468</td>
<td>0.200</td>
<td>-2.330</td>
<td>0.058</td>
</tr>
<tr>
<td>∆CAB</td>
<td>1.662</td>
<td>0.534</td>
<td>3.111</td>
<td>0.020</td>
</tr>
<tr>
<td>∆DCP</td>
<td>1.624</td>
<td>0.469</td>
<td>3.457</td>
<td>0.013</td>
</tr>
<tr>
<td>∆RPL</td>
<td>1.403</td>
<td>1.140</td>
<td>1.230</td>
<td>0.264</td>
</tr>
<tr>
<td>∆TR</td>
<td>1.73E-09</td>
<td>2.95E-10</td>
<td>5.872</td>
<td>0.001</td>
</tr>
<tr>
<td>∆UIC</td>
<td>-4.31E-09</td>
<td>5.35E-10</td>
<td>-8.062</td>
<td>0.001</td>
</tr>
<tr>
<td>∆GFCM</td>
<td>-0.704</td>
<td>0.140</td>
<td>-5.014</td>
<td>0.002</td>
</tr>
<tr>
<td>Error Correction Term t-1</td>
<td>-0.084</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.5 Diagnostic tests for ARDL

Breusch-Godfrey Serial Correlation test

Null Hypothesis: No serial correlation

<table>
<thead>
<tr>
<th>F-Statistic</th>
<th>Obs. R sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.813</td>
<td>12.396</td>
</tr>
</tbody>
</table>

Breusch-Pagan-Godfrey Heteroskedasticity test

Null Hypothesis: No Heteroskedasticity

<table>
<thead>
<tr>
<th>F-Statistic</th>
<th>Obs. R sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.212</td>
<td>40.510</td>
</tr>
</tbody>
</table>

Table 4.6 Eigenvalues

Eigenvalues: (Sum = 9, Average = 1)

<table>
<thead>
<tr>
<th>Number</th>
<th>Value</th>
<th>Difference</th>
<th>Proportion</th>
<th>Cumulative Value</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.247</td>
<td>1.204</td>
<td>0.360</td>
<td>3.247</td>
<td>0.360</td>
</tr>
<tr>
<td>2</td>
<td>2.042</td>
<td>0.485</td>
<td>0.226</td>
<td>5.289</td>
<td>0.587</td>
</tr>
<tr>
<td>3</td>
<td>1.556</td>
<td>0.634</td>
<td>0.172</td>
<td>6.845</td>
<td>0.760</td>
</tr>
<tr>
<td>4</td>
<td>0.921</td>
<td>0.332</td>
<td>0.102</td>
<td>7.766</td>
<td>0.863</td>
</tr>
<tr>
<td>5</td>
<td>0.588</td>
<td>0.275</td>
<td>0.065</td>
<td>8.355</td>
<td>0.928</td>
</tr>
<tr>
<td>6</td>
<td>0.312</td>
<td>0.142</td>
<td>0.034</td>
<td>8.668</td>
<td>0.963</td>
</tr>
<tr>
<td>7</td>
<td>0.170</td>
<td>0.017</td>
<td>0.019</td>
<td>8.839</td>
<td>0.982</td>
</tr>
<tr>
<td>8</td>
<td>0.153</td>
<td>0.145</td>
<td>0.017</td>
<td>8.992</td>
<td>0.999</td>
</tr>
<tr>
<td>9</td>
<td>0.007</td>
<td>---</td>
<td>0.000</td>
<td>9.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Table 4.3 and 4.4 show results of ARDL estimation with lagged variable values as regressors. The results show Crop production index, Domestic credit Gross fixed capital formulation, Total reserves and Use of IMF credit as significant factors in determining stock market capitalization to GDP ratio. In order to support the financial deepening initiative through stock market expansion, the Government needs to formulate policies to support economic growth for fixed asset formulation and make optimal use of the IMF credit.

4. Conclusion
The data analysis shows that real sectors of economy may generate and necessary impetus for stock market in Pakistan to grow and expand, moderated by the risk premiums and subsidized by use of IMF credit as well as reserves. Restructuring and reconditioning the bailout package with IMF may only work if the utilization is efficient and towards orthodox primary sectors with a greater yield. This study may be helpful in suggesting policy implication encompassing a focused strategy towards agriculture mechanization for higher yield crops, importance of agriculture subsidies and optimal utilization of the IMF credit. Govt. and private expenditure in Gross fixed asset formulation can be taken a crucial equity building exercise linking the financial markets with economic growth and the benefits thereof. The results of our study support recommendations for renewed and restructured Structural Adjustment Program (SAP) from IMF, and efficient allocation of the capital to increasing fixed asset formation and poverty alleviation.

References


Impact of Behavioral Biases on Investment Performance in Pakistan: The Moderating Role of Financial Literacy

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ARTICLE DETAILS

ABSTRACT

This study aims at understanding the relationships of certain behavioral biases with the investment performance, and identifies the moderating role of financial literacy upon these hypothesized relationships. Data is collected through questionnaire from the investors trading at Pakistan Stock Exchange (PSX). Structured Equation Modeling (SEM) is used to analyze the data with the results that only anchoring and overconfidence biases have significant effects on investment performance. The results also show that presence of financial literacy does not play any role in improving the performance of investors. Majorly, findings of current study contribute by testing the moderating role of financial literacy between the behavioral biases and the outcome of investment decisions and thus expected to be useful for investors and policy makers.

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1. Introduction

Standard finance assumes that investors are rational and make decisions based on risk-return considerations only (Bloomfield, O’hara, and Saar, 2009). However, they do not always follow the standard procedures for investment decision making due to their psychological and behavioral aspects (Cohn, Lewellen & Schlarbaum, 1975). Investors have several psychological biases, which are against the rational decision-making process (Rubaltelli et al., 2010).

Behavioral finance clarifies the inefficiencies of the markets because it relies on psychological factors...
affecting investors decision making (Waweru et al., 2008). It explains the market functioning in real world and helps to understand and explain the behavior patterns of the investors (Waweru et al., 2008). Behavioral finance explains investors’ feelings and cognitive errors that affect investment performance. Proponents of behavioral finance support the argument that study of human psychology is helpful in identifying stock market behaviors and in explaining the reasons of market bubbles and crashes in the real world (Gao & Schmidt, 2005). So, it helps to understand the role of behavioral biases in the stock market and explain how these biases influence the decisions in the financial markets of the world (Kim & Nofsinger, 2008).

Though there are several biases which impact upon investors’ decision making but we have selected certain major biases which are supposed to influence the investors’ behavior in the emerging markets. Jain, Walia, and Gupta (2019) ranked the behavioral biases which influence the investors’ decision making in India. Where they applied Fuzzy analytic hierarchy process to rank the factors influencing the retail investors’ decision making. They identified that the three most influential biases were herding bias, loss aversion bias and overconfidence bias. We have selected these three biases for investigation and added anchoring bias based on the gap identified as a result of literature review in the context of Pakistan.

Most of the behavioral finance literature is about the developed markets. However, the number of studies on the issue very limited in the context of developing markets. In Pakistan, very limited work is available on behavioral finance. This study attempts to explain the role of some of the most common biases and their effects upon the investment performance. The study also investigates the moderating role of financial literacy in determining performance of investors as the more informed and financially aware investor can achieve better results from exploiting the available opportunities (Clark, Lusardi, & Mitchell, 2015).

This study has following objectives:
(1) To examine the impact of behavioral biases; overconfidence, loss aversion, anchoring and herding on the performance of investors in Pakistan Stock Exchange (PSX).
(2) To investigate the moderating effect of financial literacy on relationships of behavioral biases; overconfidence, anchoring, loss aversion, herding with the performance of investors at PSX.

2. Literature Review
Earlier theories of standard finance like EMH (Efficient Markets Hypothesis) state that securities prices reflect fundamental values, the stock prices in the market are accurately determined by investors. Although, not all investors are fully rational, but according to the theory of EMH, the stock market is fully rational. On the contrary, supporters of behavioral finance believe that the financial markets can never be informationally efficient all the time (Ritter, 2003). There are several biases which affect the investors behavior. The main of these are: overconfidence, loss aversion, anchoring and herding which have a strong bearing upon investors’ behavior. Shefrin (2000) argued that overconfidence is the investors’ feeling of having more control on the investment decisions. Anchoring is a phenomenon whereby people use past values as the base value for making decisions for future (Kahneman & Tversky, 1979). This behavior leads to the under and over reaction of the investors to unexpected changes in the market (Waweru et al., 2008). Loss aversion renders investors too conservative in investment decisions that they avoid selling their underperforming stocks with the hope that they will eventually outperform winning stocks in future (Yeoh et al., 2013). Investors try to minimize their risk by turning to the risk-free securities i.e., fixed deposits, bonds, etc. and neglect the inflation factor which can result into negative real returns (Kartasova, 2013). Herding is defined as the benchmarking tendency on the part of investors to follow the larger group of investors (Tan, Chiang, & Mason 2008).

Investors’ biases and sentiments affect the investment decisions thereby creating market-wide bubbles
due to the irrational behavior and related actions of investors. Pan (2020) investigated the relationship between stock market bubbles and investors’ sentiment and found a positive effect of investors’ sentiment upon stock bubbles and bubbles’ size along with the influence of bubble shocks upon the investors’ sentiment. Based on these findings, it can be concluded that the investors’ behavior is a key predictor of stock market bubbles.

Individual investors normally involve in biased behavior related to buying and selling decisions, so this study focuses on these investors’ decisions, which largely affect the stock market performance. Shefrin and Statman (1985) report that investors sell winning stocks and hold losing stocks, which is basically the “disposition effect” and the behavior is also confirmed by Odean (1998). Odean (1998) also provides great insights about the buying behavior of investors. He concluded in his research that buying decision of investors is due to the “attention effect”. Investors tend to invest in those stocks that catch their attention based on their past performances. Therefore, it is concluded that investors’ buying or selling decisions are affected by several biases, so these biases eventually impact their performance.

Biases also affect the investor’ risk propensity while taking their investment decisions. In a study, Combrink & Lew (2020) checked the relationships among the risk propensity, overconfidence and undergo bias, but, on the contrary, did not find any significant impact upon the risk propensity. Apart from risk propensity the biases are key determinant of investors’ decision-making process. Whereas the impact of each bias might be different on investors and the impact may vary from market to market. There are a few biases which do have more impact than other biases, so this study focuses only on the biases which are critical to the investors’ decision-making. In one of the studies on the subject, Madaan and Singh (2019) found that overconfidence and herding bias have significant positive impact on investment decision. In this study, we are analyzing four biases based on an identified gap in the literature in the context of emerging economy of Pakistan. One of the major contributions of this study is incorporation of the moderating role of financial literacy upon the relationships between biases and investment decision.

Researchers in the field of behavioral finance like Anderson, Henker & Owen (2005) posited that behavioral biases could be helpful for investors in making their investment decisions easily and that the investors are prone to different kinds of biases while making investment related decisions and these decisions can result in either good or bad performance. In the study we will follow the method developed by Oberlechner and Osler (2004) for measuring individuals’ investment performance. This method measures the performance by the satisfaction level of individual investors. From the above arguments, hypotheses H1 to H8 were proposed for testing in this study:

**H1:** The Overconfidence bias significantly influences the investment performance.

**H2:** Anchoring bias significantly influences the investment performance.

**H3:** Loss aversion bias significantly influences the investment performance.

**H4:** Herding bias significantly influences the investment performance.

**H5:** Financial literacy significantly moderates the relationship of investment performance with Over confidence bias.

**H6:** Financial literacy significantly moderates the relationship of anchoring bias with investment performance.

**H7:** Financial literacy significantly moderates the relationship of investment performance and loss aversion bias.

**H8:** Financial literacy significantly moderates the relationship of investment performance and herding behavior.
3. Theoretical Framework

Figure 1: Research Model of the Study

4. Methodology
The research design applied in this study is cross-sectional in nature. For the cross-sectional data, a questionnaire was adapted and developed for this study. The questionnaire consists of three parts: first part is about demographic questions; the second part is about all the independent variables such as overconfidence, anchoring, loss aversion, herding, financial literacy and the third part measures the dependent variable which is investment performance. A Five-point Likert scale was used in the study for the responses of the investors excluding basic information part. The scales used to measure Overconfidence (four items), Anchoring (four items) and Loss Aversion (four items) are adopted from the study of Mouna & Anis (2015). The scale for Herding bias (four items) is adapted from Phuoc Luong (2011). The items for Financial Literacy (seven items) are adapted from Cude et al. (2006). The items for Investment Decision Making (five items) are adopted from Scott & Bruce (1995). The scale used to measure Investment Performance (three items) is adapted from the study of Phuoc Luong (2011). The responses were collected through convenience sampling. SPSS and AMOS are used for data analysis comprising Structural Equation Modeling (SEM) technique that incorporates both observed and latent variable values for measuring and testing of hypothesized relationships, which is a multivariate technique of structural theory (Tan, 2001).
5. Data Analysis
The demographics show that majority of investors are male because of a low percentage of active female investors at PSX. To analyze the effects of the biases on the performance of investors, results calculated using AMOS are shown in the following Figure 2.

Figure 2. Behavioral Biases and Performance

The detail about the relationships as proposed by hypotheses are shown in the table below:

<table>
<thead>
<tr>
<th>Table 1. Regression Weights</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP  &lt;--- Herding</td>
<td>-0.067</td>
<td>0.081</td>
<td>-0.834</td>
<td>.405</td>
<td></td>
</tr>
<tr>
<td>IP  &lt;--- Overconfidence</td>
<td>0.329</td>
<td>0.118</td>
<td>2.795</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>IP  &lt;--- Anchoring</td>
<td>0.142</td>
<td>0.060</td>
<td>2.392</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td>IP  &lt;--- Loss Aversion</td>
<td>0.104</td>
<td>0.061</td>
<td>1.702</td>
<td>.890</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Standardized Regression Weights</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Performance &lt;--- Herding</td>
<td>.062</td>
</tr>
<tr>
<td>Investment Performance &lt;--- Overconfidence</td>
<td>.299</td>
</tr>
<tr>
<td>Investment Performance &lt;--- Anchoring</td>
<td>.190</td>
</tr>
</tbody>
</table>
Table 2 shows that Herding Bias has no significant impact on investment performance. The values ($\beta=-0.062$, $p>0.05$) showing an insignificant relationship between the two variables. It shows in Pakistani market investors cannot make extraordinary returns by following the herd of other investors like in the case of other countries. The value ($\beta=0.299$, $p<0.01$) shows significant association between overconfidence and investment performance. The value ($\beta=0.19$, $p<0.05$) shows that Anchoring bias significantly impacts the performance. Loss Aversion shows no significant relationship with investment performance ($\beta=0.130$, $p>0.05$). The results prove that Anchoring and overconfidence variables affects the investment performance positively. The other variables i.e., Herding, and Loss aversion have no effect on investment performance. Although previous researchers (e.g., Phuoch and Loung, 2011; Ameer and Anum, 2017, Anderson, Henker & Owen, 2005 and Javeria et. al, 2016) found herding bias to be positively related to investment performance but, on the contrary, in this study no significant relationship of investment performance was found with these biases, except the Heuristics variable which happens to affect the investment performance PSX. One possible reason for these results could be the uncertain economic conditions in the country. Bhowmik (2013) argued that volatile market environment affects the fundamental values of the securities thereby making accurate prediction difficult for the investors. In this study, no moderating role of financial literacy was found upon the hypothesized relationships between the behavioral biases and investment performance. The reason could be the uncertain economic as well as the financial environment of the country, which directly affect the investment performance at PSX. Furthermore, in this study we used Basic Knowledge of Finance (just one dimension) to check the financial literacy of the investors.

6. Conclusions and Recommendations
Findings of present study help us in understanding investors’ behavior and their effects on investment performance in an emerging market. Investors’ performance was not found to be affected by herding and loss aversion behavior. These results contrast with those of previous studies (Phuoch and Loung, 2011; Ameer and Anum, 2017, Anderson, Henker & Owen, 2005 and Javeria et. al, 2016) which state that herding could be helpful in improving the investment performance. The heuristic biases like overconfidence and anchoring enable investors to use their judgment and mental shortcuts for quick decisions in an uncertain environment thereby helping them to gain better investment returns in a volatile financial environment like that of Pakistan. Financial literacy checks and mitigates the irrational behavior in investment decision making and improves their performance (Alessie, 2011; Lusardi and Mitchell, 2007; Shakir Ullah, 2015) but this study could not detect any sort of relationship between financial literacy and investment performance. Possible reason for these results may be the fact that just having some basic knowledge of finance is not helping investors in the much uncertain financial environment of PSX. The future research can take care of the gender representation by sampling a greater number of female investors as suggested by Gumus and Dayioglu (2015) that gender also influences investment decisions.

References


