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Journal homepage: www.publishing.globalcsrc.org/jbsee**Conceptual Model of Predictors of SMEs' Performance in the Context of Sudan**¹Osman Elsheikh Abdelrahman, ²Zarifah Bt Abdullah, ³Zakaria Abas¹School of Accounting, College of Business, Universiti Utara Malaysiaosmanabde@gmail.com²School of Accounting, College of Business, Universiti Utara Malaysia³School of accounting, College of Business, Universiti Utara Malaysia**ARTICLE DETAILS****History**

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ABSTRACT

Purpose: SMEs' performance in Sudan is in downturn and calls for research-based solution. To address this, this conceptual study proposes a model entailing management accounting practices (costing, budgeting, and performance measures practices) as predictors of SMEs' performance. Also, research findings on the relationship between management accounting practices and performance are inconsistent. Given this, this study proposes a model entailing management accounting practices as determinants of SMEs' performance with moderating role of external business environment.

Design/methodology/approach: This work is theorized based on extensive literature survey through which a conceptual model is developed and discussed. Inconsistent relationship between management accounting practices and performance is valued and established via published research. Also, moderating role of external business environment is discussed and validated based on contingency theory.

Findings: This paper proposes a conceptual model to serve as an answer to how Sudanese SMEs' performance can be improved through management accounting practices.

Research limitations/implications: The proposed model in this work is based on survey of published research, but it can be empirically solidified further through collection and analysis of relevant data.

Practical implications: The paper can help SMEs' owners/ managers and policy makers to understand how properly-adopted management accounting practices can improve SMEs' performance.

Originality/value: The proposed conceptual framework is an exceptional and all-inclusive model that will expectantly improve the relevant body of literature and serve as useful guide for stakeholders on how the performances of SMEs can be boosted to enable them catch up with the SMEs' performance level of the developed countries in order to boost the economy of Sudan as a nation.

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1. Introduction

Both at the global level and local level, Small and Medium Enterprises (SMEs), as a distinct sector in the

economy, is considered the springboard for sustaining economic development, and its important roles cannot be underestimated in any developed or developing country (Kuntchev et al., 2012). It is a major provider of employment (Economist & Unit, 2016; Elasarag, 2012; Kongolo, 2010). Specifically, in Sudan, SMEs provides more than 70% of job opportunities, makes citizens become very productive, and helps in capital formation (Stevenson, 2010; Gupta, Seetharaman, & Raj, 2013; Economist Intelligence Unit, 2016). SMEs remains the main source of national income after the secession of South Sudan (Nour, 2011; Thwala et al., 2012; Ajagbe, Enegbuma, Bilau & Long, 2012).

Nevertheless, Sudan's SMEs is confronted with a number of challenges hampering its performance and eventual collapse of many SMEs. For example, in 2012, 2013, 2014 and 2015, the contribution of SME to Sudan's gross domestic production (GDP) was 62.1 percent, 50.48 percent, 46.54 percent and 38.09 percent respectively (African Development Bank, 2012; Khattab & Ali 2014; Economist & Unit, 2016). Also, over 20 percent of Sudanese tanneries representing 49 present in Khartoum State have closed down (Economist Intelligence Unit, 2016). This has adversely affected current economic situation of Sudan as inflation rate is getting higher (18.15 as per August 2016) (Mirgiani, 2016). The dismal performance of Sudanese SMEs has been responsible for the gloomy and depressing performance of country's economy (Stevenson, 2010; Gangi, & Timan, 2013).

The declining SMEs' performance and the consequent collapse are associated with many issues bordering on high production cost, budgeting impact of environment, lack of performance measurement (Abdalkrim, 2013), external business environment (Eifert, Gelb & Ramachandran, 2005; Ramachandran, Gelb & Shah, 2009; CGA, 2010), inadequate budgeting and performance measurement (Ardic et al., 2011; Abdulsaleh & Worthington, 2013b), inadequate manpower, poor savings culture (Thwala, Ajagbe, Enegbuma, Bilau, & Long, 2012), constraint in sourcing for the required fund, societal and transparency problems (Meinel & Leifer, 2011), and inability to secure the required information (Tiemo 2012).

Furthermore, Churchill and Lewis (1983) and Yassir Abdel Wahied (2015) stressed that there are many causes of failure of the businesses at the initial stage. These causes include lack of adequate working capital, raw materials, skilled manpower, volatile business environment, bad government policies, high tax rates, and unfavourable exchange rate are some of the problems confronting SMEs. In addition, Stevenson (2010) posited that lack of adequate application of accounting and management accounting practices by SMEs leads to their high rate of failure. Many small firms lack favourable business environment and fail to develop initial plan for costing and budgeting while those that establish the plan for costing and budgeting fail to continually adjust and use it as a benchmarking tool (Ihua, 2009; Ropega, 2011; Hope & Fraser, 2013).

Besides, survey of the existing literature (e.g. Brijlal et al., 2014; Tayles, Pike & Sofian, 2007; Scapens, 1990) indicates shortage of empirical studies that integrate costing, budgeting, and performance measurement practices with moderating variable of the external business environment, although few studies have indicated how costing, budgeting, performance measurement practices, and external business environment can stimulate profit growth and drive forward performance. Also, there is dearth of research regarding the use of external business environment as moderator in the context of SMEs (Drury & Tayles, 1995; Alkizza & Akbar, 2006; CGA, 2010; Shehu & Mahmood, 2014). In Sudan, the application of management accounting practices (MAPs) in SMEs is limited, and there are few studies relating MAPs usage to the performance of SMEs. This gap needs to be filled up, because the information provided may guide government policy towards the SMEs sector. Lack of data on MAPs and SMEs' efficiency and effectiveness may hamper SMEs' ability to contribute meaningfully to the Sudanese economy (Thwala et al., 2012).

Owing to the facts and figures given above, there is need for Sudanese SMEs to upsurge and enhance its performance level and its competitive advantage, as this will enable it to catch up with the SMEs' performance level of the advanced countries, and in turn make the economy of the country booms. Thus,

research, which look into how Sudanese SMEs performance can be enhanced in relation to the discerned management accounting issues, bordering on costing practices, budgeting practices, performance measurement practices, and business environment aspects, is necessary.

According to Uyar (2010), management accounting especially in the context of SMEs sector should be given attention in the search and development of innovative competitive strategies. Garg, Ghosh, Hudick and Nowacki (2003); Douglas Clinton CMA and CFM (2012); Yalcin (2012); Sunarni (2013) and Ahmad (2013) revealed that despite the developments in management accounting theory, the practice remains unchanged as companies still use the traditional management accounting practices. The Sudanese SMEs relies heavily on traditional management accounting practices, hence, the adoption rates of recently developed or advanced practices are low and slow. In Sudan, there appears not to be many empirical studies on the indispensability of management accounting practices (Waweru, Hoque & Uliana, 2005; Al & McLellan, 2011).

Thus, this conceptual study proposes a conceptual model of MAPs, business environment and Sudanese SMEs' performance. Also, this study aims at examining the effect of MAPs, external business environment on Sudanese SMEs' performance. Next section presents the review of the literature conducted for the development of the proposed model.

2. Literature Review

Based on the identified issues in the introductory sections of this paper, there is need to examine relationship between costing, budgeting, performance measurement practices, external business environment and SMEs' performance in the context of Sudan.

2.1 Overview of the Variables of the Study

SMEs mean different things to different authors, in different ways and in different contexts. Different countries have their peculiar meanings grounded on the expected role of SMEs in that country. Therefore, many countries consider their levels of industrial development and other economic factors in defining SMEs (Abor & Quartey, 2010).

SMEs in Sudan entails micro, small and medium businesses. The micro businesses are those with a labour size of not more than ten workers, and the total cost of not more than five million Sudanese pound (SDG), excluding land but including working capital; small businesses involve all the firms with a labor size of between ten to forty-nine workers, with a total cost of five million SDG, but not exceeding fifty million SDG, excluding cost of land but including working capital; medium-scale businesses are those enterprises with a labor size between fifty and two hundred and forty-nine, with a total cost above fifty million SDG, but not exceeding five hundred million SDG, excluding cost of land but including working capital (Central Bank of Sudan [CBS], 2007).

SMEs' performance is process of activities through which the objectives of the firm are achieved consistently in an efficient and effective manner (Anthony, 2005; Kuntchev, Ramalho, Rodríguez-Meza & Yang, 2012; Gurdon, 2013). Smith (2005) and Melnyk Bititci, Platts, Tobias and Andersen (2014) posits that performance is a scientifically coined word which helps in measuring the efficiency and effectiveness of production and services that assists in the realization of profit. To enhance competitive advantage, many criteria have been used for the assessment of performance of SMEs and other organisations. However, performance in small companies is viewed from two perspectives: the monetary (financial) and the non-monetary (non-financial) measures (Elhiraika, 2004; Abdel-Maksoud, Dugdale, Luther, 2005; Kuntchev, Ramalho, Rodríguez-Meza & Yang, 2012).

Moreover, review of scholastic research signifies that there is no single perfect design for management accounting practices (MAPs), but the best design relies on the circumstances in which the company operates (Tayles et al., 2007). Given this, Libby and Lindsay (2007) and Ahmadi and Ahmadi (2011). submit that it is on the basis of accounting for costing, budgeting and performance measurement practices

that success of the business is measured and on which investors can find out whether or not their investment is safe and will produce a reasonable proceed for them.

Costing practices is a kind of philosophy and behaviours directed towards identification of needs of the targeted company with decreasing cost, it examines company's ability to control production costs (Ahrens & Chapman, 2007; Busco, Quattrone&Riccaboni, 2007; Abugalia, 2011). costing practices are classified into seven items: variable (or marginal) costing, full (absorption) costing, standard costing, activity-based costing (ABC), target costing, life-cycle costing and quality cost reporting. As for the budgeting practices, it refers to the process of leveraging and detecting collective costs in the company to assist it compete favourably. According to Steed and Gu (2009) and Phaup and Kirschner (2010) budgeting practices is a complex, social-technical system that consists of various methods of budgets that is used in sharing and controlling in decision making process. It includes: (1) capital budget, (2) administrative expenses budget, (3) direct materials budget, (4) direct labor budget, (5) overheads budget, (6), sales budget (7) Activity- based budgeting, and (8) production budget.

Performance measurement practices (PMP) denotes the ideal system through which organization monitors its internal working system for the purpose of understanding the contribution of each department towards attaining overall goals (Verbeeten, 2008). According to Gomes et al., (2011), performance measurement practices' essence is to ensure that the organizational activities are efficiently in line with the overall objectives of the organization. Performance measurement practices measures include: (1) balanced scorecard; (2) customer satisfaction; (3) non-financial measures; (4) employees' satisfaction; (5) return on investment (or return on capital employed) (Sharma, Bhagwat & Dangayach, 2005; Nudurupati, Bititci, Kumar & Chan, 2011 ;Eltinay, Masri&Govindaraju, 2013; Melnyk, Bititci, Platts Tobias & Andersen, 2014).

Furthermore, business environment refers to the surroundings in which business operates, and which is ever-changing, compounding and competitive in nature (Ishengoma&Kappel, 2011). Business environment is the set of norms, ethics, legal and governing frameworks, and the overall policy conditions that set rules for conduct of business and influence both positively and negatively the performance of company, the flow of investment, factor productivity, and the cost of operating a business. These can either be from both internal or external settings, and it can affect the smooth running as well as function of an organization (Abugalia, 2011; Shehu& Mahmood, 2014). Dynamic environmental dimensions arise from the changes in major operating variables such as market and industry, economic, political, technology and other social forces.

2.2 Costing Practices and Performance

Numerous studies have been conducted with focus on costing practices (CPs) and performance. Among these studies are Chenhall and Langfield-Smith (1998) whose findings indicate significant and positive relationship between costing practices and performance. Similarly, Guilding, Lamminmaki and Drury (1998) who conducted their research on a sample of fifty-three single businesses, found a positive relationship between costing practices and performance.

Furthermore, in the seminal work done by Joshi (2001) positive and significant nexus among costing practices and company performance was found. Similar finding was also found by Luther and Longden (2001) in their research on relationship between costing practices and performance in the context of a developing economy, using a survey questionnaire administered on one hundred and sixty-two manufacturing and Service Company.

Lamminmaki and Drury (2001) reported a significant and positive influence of costing practices on small company performance. Tornberg, Jämsen and Paranko (2002) in their study on the effect of costing practices on performance in service firms, examined the association between costing practices and performance in the hospitality businesses. Two hundred and one data were generated through survey questionnaire and the preliminary questions were pre-tested on thirty hotel chief executives who joined an executive development program at a leading hotel and restaurant in the north- eastern USA. The finding shows that costing practices is positively related to both non-financial measures of performance (service

quality, customer satisfaction, and employee satisfaction) and financial measures of performance (occupancy rate, gross operating profit, and market segment). This research establishes a strong positive connection between costing practices and all forms of performance.

Arai (2006) examined three hundred and fifty-three owner/ managers in Japan. A structural equation modeling and survey design was used. The finding of their study reported an important linkage between costing practices and small sized service retailer performance. Rattray et al., (2007) in their Meta-analytic study on costing practices, employed a quantitative approach using correlation and multivariate analyses. The finding of their study reported that relationship between costing practices and performance is positive and stronger in the sampled manufacturing firms.

More so, substantial studies, including Akyol et al., (2007), Banker et al., (2008), Hamood et al., (2011), Fullerton et al., (2014), Chapman et al., (2014) etc., have established positive nexus between conducted a research on the association between costing practices and performance.

However, many other studies such as King et al., (2010) Mahama et al., (2013). Siguenza-Guzman et al., (2016).reported mixed findings in which significant negative relationship or no significant relationship were found between costing practices and performance.

Moreover, majority of the research are conducted in US, UK and some nations other than Sudan while large number of them were conducted on large firms. Since the findings of the substantial reviewed research indicate positive relationship between costing practices and performance, it can be inferred that same result will be arrived at if the relationship is tested in the context of Sudan's SMEs.

Given the above explication, this conceptual paper makes the following proposition:

P1: There is a significant and positive relationship between costing practices and SMEs' performance in Sudan.

2.3 Budgeting Practices and Performance

Considerable studies have established the linkage between budgeting practices and company performance. Pike (1996) examined the relationship between budgeting practices, environmental uncertainty and company performance and found that budgeting practices are directly related to various intermediate measures of strategic organisational performance namely: budgets, product leadership and operational excellence, and that those intermediate measures are, in turn, associated with company performance. Based on this evidence, the researchers added that as long as budgeting practices enhance intermediate organisational performance, positive company performance will be the outcome.

The study by Burritt (2004) indicates that small companies can benefit from operational budgeting practices for sustainable competitiveness. Hansen et al., (2004).investigated the relationship between budgeting practices and company performance by empirically investigated 78 companies in US and found positive relationships between budgeting practices and performance.

Nevertheless, studies results show that SMEs still lacks in budgeting practices. There are various reasons for this. Those reasons include lack of financial and non-financial resources, less top management promise, shortage of financial performance related organizational infrastructure (Chief Knowledge Officer or Chief Information Officer), and misunderstanding about budgeting practices, benefits and its implementation. Less work has been done about budgeting practices in SMEs due to the misunderstanding that knowledge management can be similarly practiced in SMEs as it can be practiced in large organizations (Dugdale&Lyne, 2006). It is observed that SMEs would benefit from the budgeting practices (Verbeeten, 2006).

Several other research on budgeting practices-performance nexus include Van der Haddad et al., (2010), King et al., (2010), Robinson et al., (2013), Bleyen et al., (2015) etc. All of these researches establish significant and positive relationship between budgeting practices and company performance, although those studies were done in different context excluding Sudan.

Going by the above discussion, this conceptual paper proposes that:

P2: There is a significant and positive relationship between budgeting practices and SMEs' performance in Sudan.

2.4 Performance Measurement Practices and Performance

Numerous studies have established the linkage between performance measurement practices (PMPs) and company performance. According to Folan and Browne (2005), a performance measurement practice is positively related to performance. PMPs may be more strongly related to performance when it is pooled with both the appropriate plan and the proper environmental conditions, and this study paves way for the emergence of other related empirical studies on performance measurement practices and company performance. The finding of Gomes et al., (2006) supported the previous performance measurement practices literature that established the positive association between performance measurement practices and performance relationship.

The studies of Lichiello and Turnock (1999), Parker (2000), Hussain et al., (2002), Salas et al., (2008), Verbeeten (2008), Kim and Kim (2009), Nudurupati et al., (2011) etc. confirmed positive relation between performance measurement practices and company performance.

Nevertheless, Gomes et al., (2011); Bititci et al., (2012) established a negative relationship between performance measurement practices and performance. De Vries (2010) and Delgado Ferraz and Gallardo-Vázquez (2016) findings indicate mixed findings with regards to connection between the two variables. Powell (2004) study showed inconsistent results regarding the relationship between performance measurement practices and performance. Studies conducted by O'Sullivan and Abela (2007); Garengo and Bititci (2007) found positive relationship between performance and performance measurement but Moxham (2009) noted no relationship between the two variables.

It is also noteworthy that most performance measurement practices studies were conducted in Europe and Latin America and US (Ben Hadj Salem Mhamdia, 2013), and substantial reviewed research indicate positive relationship between PMPs and performance. In addition, some researchers (Azfar et al., 2014; Micheli& Mari, 2014) suggested research in other in other countries with different socio- cultural situation from that of the US and other developed nations.

Based on the above arguments, this study proposes the following:

P3: There is a significant and positive relationship between performance measurement practices and SMEs' performance in Sudan.

2.5 External Business Environment Variable as a Moderator

Moderating variable is widely used in business research areas, as it affects and strengthens the relationship between independent variable (predictor) and dependent variables (Shields et al., 2000). Organization's strategies, its capabilities and resources aligned with the external business environmental factors determine firm's long-term profit (Powell, 1992; Fuchs et al., 2000; Beer et al., 2005). Several researchers suggested that external business environment moderate the connection between organizational strategies and performance of a company (Dess& Beard, 1984; Zahra & Bogner, 1999; Li and Atuahene-Gima. 2001).

Sila and Ebrahimpour (2002), based on their comprehensive review of the management accounting practices literature, identified that research findings are inconsistent regarding the relationship between management accounting practices and company performance. Furthermore, Dosch and Wilson (2010), in their empirical investigation on the relationship between costing practices to company performance, observed that costing practices is incapable to directly increase business performance without the moderation of business environment. Likewise, it has been contended that company performance and budgeting practices relationship depends on both factors of external business environment and internal organizational processes (Tang et al., 2008). According to Martins and Rialp (2013) external business environment is always highlighted as an important contextual factor in the budgeting practices and performance relationship.

Like costing and budgeting, performance measurement practices (PMPs) is equally considered as one of the very important factor that contribute to firm performance and regarded as a main source to profit

growth and enhance performance (Bryson & Daniels, 1998; Johnson et al., 2007; Klapper & Parker, 2011). Given the inconsistency regarding research findings on PMPs and performance nexus, studies have suggested that the effect of performance measurement practices on performance depends on external environmental conditions (Britton and Worthington (2010); Fereidouni et al., 2010). Performance measurement practices are required to focus on those external business environmental factors that are expected to affect their ability towards the enhancement of customer satisfaction (Wong et al., 2014). Adeoye and Elegunde (2012) argued that the proper alignment between key organizational factors with the context or environment leads to better performance. The significance of proper alignment of practices with the environment refers that companies must develop those capabilities and characteristics that will give them ability to cope with their environments Gupta (2013); Otache and Mahmood (2015) highlighted that firm's outcome should not be measured based on its characteristics (i.e. management style, structure, etc.) but rather results should be determined from the fit between firm's dimensions within a specific environment.

Based on the above explication, this conceptual research makes the following propositions:

P4: External business environment moderates the relationship between costing practices and SMEs' performance in Sudan

P5: External business environment moderates the relationship between budgeting practices and SMEs' performance in Sudan.

P6: External business environment moderates the relationship between performance measurement practices and SMEs' performance in Sudan.

3. Underpinning Theory of the Proposed Conceptual Model

This proposed conceptual model which proposes that management accounting practices (costing, budgeting, performance measurement practices) and performance of SMEs are interrelated via the moderating role of external business environment is underpinned by the resource-based view which posits that performance of an organization is affected by its resources and capabilities. Firms are able to achieve better performance through the effective use of their organizational resources and strategic capabilities (i.e. costing, budgeting, performance measurement practices).

Strategic capabilities i.e. costing, budgeting, performance measurement practices are a pool of internal resources aimed at achieving profit growth (King et al., 2010). So, these rare and distinctive combinations of strategic resources within a firm have potential to enhance company performance and to achieve profit growth (Antony & Bhattacharyya, 2010). It is also posited that firms should work towards the establishment of the relationship among external business environment, internal capabilities and strategies for the maximization of profit, growth and improved performance (Kurien & Qureshi, 2011).

Moreover, the concept of "fit" or "match" is the basic premise of the contingency theory. Therefore, research scholars of the contingency research and management, such as Otley (1980); Haldma and Lääts (2002); Scapens (2006); Covalski et al., 2006); Abdel-Kader and Luther (2008) emphasized the necessity of the fit between the organizational strategy and some of the organizational variables as the key prerequisite for company's performance. Fullerton et al., (2014) observed that there can be improvement in company performance if there is an effective alignment of the key management accounting variables. Contingency theory posits that the firm structure or strategy varies based on its contextual situation.

4. Proposed Conceptual Research Model

Based on the discussion in the preceding sections, this work proposes a conceptual model which indicates that management accounting practices (costing, budgeting, performance measurement practices) and performance of SMEs are connected via the moderating role of external business environment. This is illustrated in the figure below:

Figure:1

This conceptual work makes contributions in many ways including theoretical, contextual, and managerial contributions. It posits the moderating role of external business environment in the relationship between management accounting practices (costing, budgeting, performance measurement practices) and performance of SMEs. Thus, it contributes to the present body of knowledge in the research area. It can equally be a useful guide for stakeholders and policy makers in Sudan on how the performances of SMEs can be enhanced to enable them catch up with the SMEs' performance level of the advanced countries in order to boost the economy of Sudan as a nation.

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