

Assessment of Financial and Non-Financial Performance Indicators Used By Small and Medium Construction Firms In Nigeria

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Abstract

Measurement of performance has become an important component of any organisation that desire to remain competitive in the current dynamic business environment. It is necessary for tracking, forecasting and controlling important variables in order to evaluate whether a business is meeting its objectives or not. This paper investigated the use of financial and non-financial performance indicators among managers and owners of small and medium size construction firms in Nigeria. Adopting a quantitative approach, data was collected from a sample of 139 owners/CEOs and top managers of Nigerian construction small and medium enterprises (CSMEs) through a cross sectional questionnaire survey. Both financial and non-financial data were collected subjectively. The data obtained was analyzed with the aid of SPSS software. Finding shows that, there is significant awareness among owners and top managers of CSMEs on the importance of both financial and non-financial measures in assessing firm performances. The most preferable financial measures of interest used by the CSMEs are: return on investments, general profit, growth in revenue and growth in assets while quality of products and services, product and service delivery performance, client's general satisfaction, employee competency and client retention were the most adopted non-financial indicators used for evaluating performance among CSMEs in the study. The study however revealed that the level of both financial and non-financial performance was moderate among the CSMEs. It was concluded from the study, that although there is an appreciable understanding of the significance of combining both financial and non-financial measures in assessing performance among Nigerian CSMEs, there is however, need for more improvement in the general performance of CSMEs in the construction sector.

Keywords: Performance indicators, Financial performance, Non-financial performance, Return on investment, Construction small and medium enterprises (CSMEs)

INTRODUCTION

The desire to achieve better results and remain competitive in the current fast changing business environment has compelled the need for measuring performance among businesses. Consequently, firm performance has become an important component of organizational activity that has been attracting increasing attention from both scholars and practitioners. According to Johansson *et al.* (2008) firm performance refers to how well a firm does in its business environment. It represents the successes of a firm in the market characterized by its ability to create acceptable outcomes and actions (Islam *et al.*, 2011). Performance measurement is needed for tracking, forecasting and controlling important variables to examine whether a business is meeting its objectives or not. It constitute one of the critical means for assessing and improving the success of business enterprises.

Financial measures of performance have previously been the most predominant method of assessing firm performance. Researchers have however, argued that focus on financial measures based on historical cost related indices is not adequate for measuring performance especially in the current competitive business environment (Munir & Baird, 2016; Mashovic, 2018;). Consequently, the use of non-financial indicators to capture the different interests of various stakeholders and to overcome some of the criticisms of the financial method was advocated for by many scholars (Kaplan & Norton, 1996; Islam, 2011; Khan *et al.*, 2016).

Firms are reported to benefit more when a variety of both financial and non-financial indicators are used to measure their performance (Zuriekat *et al.*, 2011; Khan *et al.*, 2016). Some studies have shown that majority of small and medium size enterprises (SMEs) prefer to use a combination of the two measures to assess their performance. According to Khan *et al.* (2016) most SMEs view financial indicators as a narrower conception of performance that largely neglects some non-financial goals of owners and managers. It has now become the most common practice among SMEs to use both financial and non-financial indicators to assess their performances. Managers directing the efforts of organizations including those in the construction sector are expected to adapt to the changing performance measurement systems in order to appropriately capture the needs of their various stakeholders.

Construction SMEs (CSMEs) are reported to constitute the largest number of construction organizations in both developed and developing countries including Nigeria (Odediran *et al.*, 2012, Mudi *et al.*, 2015). Hence the role of CSMEs in stimulating the growth of a nation's economy cannot be overemphasized. Consequently, having a clear understanding of the performance evaluation tools adopted by owners and managers of CSMEs is very important for assessing the health of construction organizations. There is however, an apparent paucity of literature and understanding of how Nigerian CSMEs are embracing the changing performance measurement system in their operations. The current paper is therefore, an attempt at assessing the types and level of use of financial and non-financial parameters for performance measurement with a view to highlighting the disposition of Nigerian CSMEs on the changing performance measurement systems as obtainable in other sectors.

Firm Performance

Firm performance refers to the operational ability of a business to satisfy the desires of its major shareholders (Smith & Reece, 1999). According to Islam *et al.*, (2011) performance signifies the firm's success in the market characterized by its ability to create acceptable outcomes and actions. Such outcomes may take different forms such as survival, profit; return on investment, sales growth, number of employees, happiness, reputation, and so on. The objective of performance measurement especially for-profit based organizations is to determine the changes in the value of a firm (i.e., changes in shareholders/business owner's wealth) and to communicate information that will aid managerial decisions and actions (Johansson *et al.*, 2008; Attiea *et al.*, 2014). Performance measurement is used to control and keep track of how a firm is performing and whether it is meeting its objectives. The desire for firms to fulfill the need of stakeholders which include customers, consumers, employees, suppliers, local community stakeholders and shareholders also makes performance measurement very important (Harif *et al.*, 2013). Hence, measuring performance constitute a critical component towards improving an enterprise business objectives. Authors have broadly categorized the criteria for measuring performance into two: i)

financial and ii) non-financial measures (Rauch *et al.*, 2009; Santos & Brito, 2012; Emeakponuzo, 2014).

Financial Measures of Firm Performance

Financial measures depict aspects of business achievements that help decision makers to determine whether the business is increasing the wealth of its owners or not. This measure has its roots in the areas of accounting, financial management and economics (Attiea *et al.*, 2014). It involves assessments of factors such as profits, sales growth, revenues and return on investment (Johansson *et al.*, 2008; Rauch *et al.*, 2009). Financial performance with accounting measures of profitability have long been considered as one of the most important measures that provides valuable means of summarizing and evaluating business achievement (Rowe & Morrow, 2009; Santos & Brito, 2012; Arshad *et al.*, 2014). Indicators of profitability and growth have been widely used to measure the financial performance of firms. Profitability measures a firm's past ability to generate returns while growth demonstrates a firm's past ability to increase its size. Increasing size, even at the same profitability level, will increase absolute profit and cash generation. Larger size can also bring economies of scale and market power, leading to enhanced future profitability (Santos and Brito, 2012).

The use of financial performance alone to present organizational performance has however, been widely criticized as inadequate for the effective management of businesses especially in the current rapidly changing and competitive markets (Kennerley & Neely, 2003; Emeakponuzo, 2014). This is especially so as companies are confronted with increasing expectations from a variety of stakeholders (Emeakponuzo, 2014).

One of the major criticisms of financial measures is that it does not convey the whole picture as it provides little indication of how performance is achieved or how it can be improved (Kennerley & Neely; 2003). Thus, it is considered of limited benefit since it does not reveal factors that drive long-term success and maximization of shareholders wealth, (e.g. customer satisfaction, ability to innovate, quality etc.). The method according to Rowe & Morrow (2009) tends to undervalue intangible assets. This argument suggests that financial performance is most often a consequence of changes in non-financial factors (Kaplan & Norton 1996). Another criticism of the method is that of short termism and internal focus. Scholars have argued that linking rewards to financial performance may tempt managers to make decisions that will improve short-term financial performance but may have a negative impact on long-term profitability (Venantzi, 2012). The method also tends to have an internal focus which critics argue is detrimental as firms can only compete successfully when external factors such as customer satisfaction and competitors' actions are considered (Kaplan & Norton, 1996; Venanzi, 2012; Attiea *et al.*, 2014; Emeakponuzo, 2014).

The tendency of manipulation is another major drawback of the financial measures as managers may be tempted to manipulate results in order to achieve financial performance target. The method is also considered as lagging or historical, which usually shows what has happened. Hence it's regarded as backward looking method which is not suitable in today's dynamic business environment (Attiea *et al.*, 2014; Emeakponuzo, 2014). These shortcomings in traditional financial measures have led researchers to focus attention on some non-financial measures capable of measuring multiple attributes of an organization in order to compliment financial measures (Zuriekat *et al.*, 2011).

Non-Financial Measures of firm performance

Non-financial measures are leading indicators that provide information on future performance not necessarily contained in traditional accounting measures (Hofmann, 2001; Emeakponuzo, 2014). They reflect key value-creating activities (Kaplan & Norton, 2001). The focus of non-financial performance is more on a firm's long-term success with factors such as customer satisfaction, internal business process efficiency, innovation, employee satisfaction etc. which lead to improved organizational and financial performance of firms. Increased in the level of globalization coupled with strong competition, and technological changes have lead many organizations to now use a blend of both financial and non-financial measures to determine their performance (Attiea *et al.*, 2014). This method is often referred to as the balanced scorecards method (Kaplan & Norton, 1996). It was argued by Attiea *et al.*, (2014,) that the use of balanced mix of financial and non-financial measures can serve as a focal point that enables an organization to define and communicate its priorities to different groups of stakeholders (e.g., managers, employees, investors, customers, and the public).

Although different measures may have their own strengths and weaknesses, the use of the two types of measures appears to complement each other. Debates are still ongoing relating to the advantages and disadvantages of considering financial or non-financial performance and the appropriate choice of measures. However, Zuriekat *et al.*, (2011) have reported that some empirical evidence indicates that financial and non-financial measures are not substitutes, but that non-financial measures are used as additives to financial measures. Hence the use of a combination of the two measures has become a popular framework in different fields. A combination of the two is essential to give a more balanced impression of the overall performance of an organization. Managers are therefore, expected to choose the optimal combination of measures that will result to effective measurement of outcomes in their organizations (Joshi *et al.*, 2011). The current study therefore, seeks to examine the use of financial and non-financial indicators in measuring firm performance among construction SMEs in Nigeria. The following hypothesis was thus, proposed:

H₀: There is a significant difference between the financial and non-financial performance indicators of small and medium size construction firms in Nigeria. Alternative hypothesis to reject this statement.

METHODOLOGY

A cross sectional field survey using a structured questionnaire was adopted in obtaining data for the study. The targeted population in the study were Owners/CEOs and top-level managers of construction firms operating in Lagos and Abuja, Nigeria. The strategic importance of Lagos and Abuja to Nigeria and their being hosts to a large number of construction firms provided the basis for the choice of this study areas. Adams (1997) and Adeleke *et al.*, (2017) have used these same locations to base their analysis of construction firms in Nigeria for similar reasons. Construction firms registered on the database of the Federal Inland Revenue Service (FIRS) in Abuja and Lagos were obtained and used as the sampling frame for the study. This database was considered credible because it captures firms that regularly pay their taxes, suggesting that they are active in the field. A total of 9,128 firms (5,124 in Lagos and 4,004 in Abuja) were registered on the database as at January 2017. Simple random sampling technique was adopted with the sample size selection guided by Krejcie & Morgan (1970) table. For a sampling frame of 9,128 construction firms, 370 respondents were selected based on the suggestion of the table. Although the questionnaires were

administered to all categories of firms in the database, however, only the results for firms categorized as CSMEs were utilized for analysis. The study adopted the number of permanent employee's criteria as the basis for categorizing CSMEs where only firms employing less than 200 workers were considered. This was in accordance with the SMEDAN/NBS (2013) definition of SMEs in Nigeria. Most researchers prefer using the number of employees to define SMEs because it is an objective measurement that is easier to obtain from firms than financial information (Curran & Blackburn, 2001). The questionnaires were self-administered by the researcher and other research assistants in the study area. Out of the 370 questionnaires distributed about 139 were returned valid and suitable for analysis. This represents 37.6% response rate in the study.

Variables and Measurements

Both financial and non-financial indicators were measured subjectively. The choice of subjective measures was in recognition of the difficulties in getting objective financial data from businesses. A study by Zulkiffli & Perera, (2011) indicates that most firms often refuse to disclose accurate, objective data and even where it is made available; they tend to manipulate such data to avoid issues such as taxes. The respondents were requested to assess the performance of their firms over the last three years relative to other competitors on a 5-point Likert scale with "1= very low performance" and "5= very high performance". Financial performance was measured using subjective indicators of profitability and growth. The measures were developed from ideas and suggestions of previous studies such as Zulkifli and Perera (2011), Santos and Brito (2012) and Selvam *et al.*, (2016). Profitability and growth indicators were represented by seven (7) items namely: return on investment (*FNPI*), return on asset (*FNP2*), general profit (*FNP3*), growth in assets (*FNP4*), growth in market share (*FNP5*), growth in number of employees (*FNP6*) and growth in revenue (*FNP7*).

Non-financial performance was assessed using nine (9) statements coded *nFNP 1-9*. The indicators are: Client acquisition (*nFNP1*), client retention (*nFNP2*), client general satisfaction (*nFNP3*), Product/service delivery performance (*nFNP4*), Quality of products/services (*nFNP5*), Employee training (*nFNP6*), Employee Competency (*nFNP7*), Employee's general satisfaction (*nFNP8*) and Health and safety performance (*nFNP9*). Data obtained in the study was analyzed using SPSS Version 20.0.

RESULTS AND DISCUSSION

The results in both table 1 and 2 shows that the overall average means of both financial and non-financial performance indicators was 3.146 and 3.148 respectively. The mean scores were considered to be slightly above moderate based on the five point Likert scale adopted in the study. The results suggest that Nigerian constructions SMEs are having a moderate level of both financial and non-financial performance in their business operations. A breakdown of the individual mean values for financial measures shows that *FNPI* (3.374), *FNP3* (3.360) and *FNP7* (3.345) were rated higher than other indicators. This suggests that the respondents were of the view that their return on investments, general profit and growth in revenue are high when compared to their competitors. Growth in asset *FNP4* (3.259) and return on asset *FNP2* (3.245) were also ranked moderately. The result however, suggests that there is low growth in the number of employees and market share among firms in the study as indicated by *FNP6* (2.518) and *FNP5* (2.921) respectively.

Table 1: Mean Values of Financial Performance Indicators

Code	Indicators	Mean	Std. Deviation	Ranking
<i>FNP1</i>	Return on investment	3.374	0.684	1
<i>FNP3</i>	General profit	3.360	0.637	2
<i>FNP7</i>	Growth in revenue/turnover	3.345	0.656	3
<i>FNP4</i>	Growth in assets	3.259	0.695	4
<i>FNP2</i>	Return on asset	3.245	0.635	5
<i>FNP5</i>	Growth in market share	2.921	0.703	6
<i>FNP6</i>	Growth in number of employees	2.518	0.726	7
Average Mean		3.146		

Assessment of non-financial indicators shows that respondents strongly rated the quality of their products and services *nFNP5* (3.684), product and service delivery performance *nFNP4* (3.582) and client's general satisfaction *nFNP3* (3.403) over other non-financial indicators. Employee competency *nFNP7* (3.259), client retention *nFNP2* (3.130) and client acquisition *nFNP1* (3.007) were also ranked relatively high by the respondents. The result however shows that employee training *nFNP6* (2.532) scored the lowest mean followed by health and safety performance *nFNP9* (2.741) and employee's general satisfaction *nFNP8* (2.993).

Table 2: Mean Values of Non-Financial Performance Indicators

Code	Indicators	Mean	Std. Deviation	Ranking
<i>nFNP5</i>	Quality of products/services	3.684	0.626	1
<i>nFNP4</i>	Product/service delivery performance	3.583	0.658	2
<i>nFNP3</i>	Client general satisfaction	3.403	0.709	3
<i>nFNP7</i>	Employee Competency	3.259	0.582	4
<i>nFNP2</i>	Client retention	3.130	0.669	5
<i>nFNP1</i>	Client acquisition	3.007	0.737	6
<i>nFNP8</i>	Employee's general satisfaction	2.993	0.571	7
<i>nFNP9</i>	Health and safety performance	2.741	0.674	8
<i>nFNP6</i>	Employee training	2.532	0.745	9
Average mean		3.148		

To find out if there was any significant difference between the means of financial performance and non-financial performance (hypothesis H_2) of the CSMEs in the study, a paired sample t- test was carried out. Table 3 presents the result of the paired sample t-test. The result shows that, the mean of financial performance was not statistically significantly different from that of non-financial performance $t(138) = -0.046, p=0.963$. The finding indicates that the research hypothesis (H_2) was not supported. This implies that construction firms attached almost equal priority to both their financial and non-financial performance goals.

The individual mean values for financial performance indicators vary between 2.518 to 3.374 with an overall average mean of 3.146. Among the indicators of profitability and growth used to measure financial performance, the result shows that return on investments, general profit and growth in revenue recorded the highest mean values. Wiklund (2005) had identified return on investment, profit growth as well as return on asset as the three key measures of financial performance. Similarly, Rauch *et al.* (2009) also reported sales growth (growth in revenue) as the most common and widespread indicator of firm financial performance. Growth in number of

employees and market share recorded the least mean values. The low mean scored by growth in number of employees was not surprising considering the industry’s heavy reliance on temporary labour. A study by Abdullahi *et al.* (2015) reported that about 82.02% of artisans in the Nigerian

Table 3: Result of Paired Samples t-Test

	Mean	Paired Differences				T	df	Sig. (2-tailed)
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1								
Financial Performance								
Non-Financial Performance	-0.002	0.494	0.042	-0.085	0.081	-0.046	138	0.963

construction industry is employed on temporary and casual basis. The ILO (2001) has also criticized the high prevalence of temporary and informal recruitment practice in the construction industry. The reason for the low growth in market share was strongly suspected on the characteristic nature of contracting business where firms are more likely to stick to and maintain long term relationship with existing clients than look for new clients. Rauch *et al.*, (2009) regarded market share growth as a complimentary measure of performance which should not be solely relied upon for evaluating performance.

The average mean of 3.146 scored by financial indicators suggest that Nigerian constructions SMEs are enjoying a modest level of both growth and profitability in their operations. Profitability represents the firm’s ability to generate returns while growth shows their ability to increase in size. Increasing size, even at the same profitability level, can increase absolute profit and cash generation. Larger size on the other hand, brings economies of scale and market power, leading to enhanced future profitability (Santos & Brito, 2012).

The mean values for non- financial indicators vary between 2.532 to 3.684 with a total average mean of 3.148. The respondents strongly rated indicators such as: quality of products and services, product and service delivery, client’s general satisfaction and employee competency while employee training and health and safety performance scored the lowest means. The high rating of quality related indicators suggests that construction firms placed serious prominence to the quality and delivery of their products and services. Quality in the construction industry emphasized the ability to conform to and meets the expectation of clients (Ali & Ramat 2010). There is thus, a nexus between quality of products and services and client’s satisfaction. According to Soetanto & Proverbs (2004) client’s satisfaction in construction is often associated with quality assessment in the context of products and services received by clients.

Poor product and services quality negatively affects a firm’s reputation and can leads to client/customer dissatisfaction and loss of future markets. Because, when customers are not satisfied, they are prone to find other suppliers of the product and service that can meet their needs. Hence, poor customer satisfaction can be a leading indicator of future decline, even if the current financial performance of a firm is good. According to Chan *et al.* (2004) client’s satisfaction is an

important goal that must be carefully guarded by firms, since without the clients, there would be no construction projects which is the main business of construction firms. A study by BSRIA (2003) has argued that it is five times more expensive to develop a new construction client than to maintain an existing one.

Although the low mean obtained by health and safety and employee training was not surprising, it however, calls for serious concern among stakeholders in the industry. Construction has often been characterized by poor image not least because of its poor safety record and job insecurity (Singh & Bhanushali, 2012; Garrity, 1999). According to Sousa & Teixeira (2004), construction workers have three times more chances of dying and two times of getting injured than workers in other industries. Hence, serious attention is required to enhance health and safety performance and employee training among construction firms.

The result of paired t-test shows that there was no significant difference between the financial and non-financial performance of CSMEs in the study. This was an interesting finding as it suggests that construction firms attached similar importance to both their financial and non-financial objectives in their operations. While financial indicators depict the extent to which a firm is increasing its owner's wealth or otherwise, non-financial indicators on the other hand, provide information on future performance not necessarily indicated by traditional financial measures (Hofmann, 2001; Attiea *et al.*, 2014; Emeakponuzo, 2014).

According to Zuriekat *et al.* (2011) empirical evidence has shown that financial and non-financial measures are not substitutes, but rather non-financial measures are used as additives to financial measures. The use of a mix of the two measures can serve as a focal point that enables firms to define and communicate their priorities to different groups of stakeholders (e.g., managers, employees, investors, customers, and the public). A study by Chow and Van Der Stede (2006) also concluded that non-financial performance is not significantly different from financial performance in its contribution to operational strategic decision management. Firms should therefore, identify the optimal combinations across the two indicators to effectively measure and communicate their performance.

CONCLUSION

It was concluded based on the findings of this study that Nigerian CSMEs devotes almost equal attention to both their financial and non-financial objectives as no significant difference was found between the means of the two measures of performance. This suggest that owners and top managers of CSMEs are conscious of the importance of both financial and non-financial indicators in assessing their firm performances.

Return on investments, general profit, growth in revenue and growth in assets were the most preferable financial measures of interest adopted by Nigerian CSMEs while quality of products and services, product and service delivery performance, client's general satisfaction, employee competency and client retention constitute the most favorite non-financial indicators for evaluating performance among CSMEs in the study. The research also established a moderate level of both financial and non-financial performance suggesting the need for more improvement in performance among Nigerian CSMEs.

References

- Abdullahi, U., Anum, I., Adole, A.M. & Williams, F.N. (2015). Artisan's Working Conditions in the Nigerian Construction Industry: A Case Study of Some States in Northern Nigeria. *ATBU Journal of Environmental Technology*, 8(1), 16-2
- Adam, O. (1997). Contractor Development in Nigeria: Perceptions of Contractors and Professionals. *Construction Management and Economics*. 151: 95-108
- Adeleke, A.Q., Bahaudin, A.Y., Kamaruddeen, A.M., Bamgbade, J.A., Salimon, M.G., Khan, A., M.W. & Sarooshian, S. (2017). The Influence of Organizational External Factors on Construction Risk Management among Nigerian Construction Companies. *Safety and Health at Work*, <http://dx.doi.org/10.1016/j.shaw.2017.05.004>
- Ali, A. & Rahmat, I. (2010). The Performance Measurement of Construction Projects Managed by ISO-Certified Contractors in Malaysia. *Journal of Retail and Leisure*, 9: 25-35
- Arshad, A.S, Rasli, A. Arshad, A.A. & Zain, Z. A. (2013). The Impact of Entrepreneurial Orientation on Business Performance: A Study of Technology-based SMEs in Malaysia. *Procedia – Social and Behavioral Sciences*, 130: 46-53.
- Attiea, A. M., Mohamed, E. I. & Amjad, D. A. (2014). Effects of Financial and Non-financial Performance Measures on Customers' Perceptions of Service Quality at Islamic Banks in UAE. *International Journal of Economics and Finance*, 6 (10), 201-213.
- Building Services Research and Information Association-BSRIA (2003). Customer Satisfaction Services for M&E Contractors: A Proposal Report. <http://www.bsria.co.uk/goto/content.asp?section=services&content=construction+practice&ervices=customer+satisfaction+research+for+m%26e+contractors&page=1&lang>
- Curran, J. & Blackburn, R.A. (2001). *Researching the Small Enterprise*. London Sage Publications.
- Chan, A. P. C., Scott, D., & Chan, A. P. L. (2004). Factors Affecting the Success of a Construction Project. *Journal of Construction Engineering and Management*, 130(1), 153-155.
- Chow, W. C. & Van der Stede, W.I. (2006). The Use and Usefulness of Nonfinancial Performance Measures. *Management Accountancy Quarterly Spring*, 7(3)1-8
- Emeakponuzo, D.E. (2014). Non-financial Performance Measures and Firm Value in Nigeria: What is the Link? *British Journal of Economics, Management & Trade* 4(6), 947-966.
- Garrity, K. (1999). No Easy Solutions to Construction Labour Shortage. *Seattle Daily Journal of Commerce*. <http://www.djc.com/special/construct99/10050580.htm>
- Harif, M. A. A. M., Hoe, C. H., and Ahmed, M. I. (2013) "The Financial and Nonfinancial Performance Indicators of Paddy Framers' Organizations in Kedah". *World Review of Business Research*, 3 (1). 80-102.
- Hofmann, C. (2001). Balancing Financial and Non-Financial Performance Measures. Retrieved July 3, 2016 from: <http://www.econbiz.de/archiv/h/uh/controlling/performance.pdf>
- ILO, (2001). *The Construction Industry in the Twenty First Century: Its Image, Employment Prospects and Skill Requirements*: Tripartite Meeting on the Construction Industry in the Twenty-First Century, ILO Geneva, 10-14th December, 2001. Retrieved August 25, 2008 from: <http://www.ilo.org/public/english/dialogue/sector/techmeet/tmcit01/tmcitr.pdf>
- Islam, M.A., Khan M.A., Obaidullah A. Z. M. & Alam M. S. (2011). Effect of Entrepreneur and Firm Characteristics on the Business Success of Small and Medium Enterprises (SMEs) in Bangladesh. *International Journal of Business and Management*, 6(3), 289- 299.
- Johansson, J., Luotonen, D. & Hasselström, M. (2008). *Performance Measurement -A study of Financial and Non-Financial Measures in Two Logistics Oriented Companies*. Unpublished Bachelor thesis, Jönköping University.

- Joshi, P.L., Kumar, R. & Al-Ajmi, J. (2011) 'An Empirical Study of the Use and Usefulness of Financial, Non-financial and Subjective Measures for Performance Evaluation in Industrial Companies in Bahrain', *Int. J. Managerial and Financial Accounting*, 3(2), 140–169.
- Kaplan, R. S. & Norton David P. (1996). *Translating Strategy into Action; The Balanced Scorecard*. Harvard Business School Press. Boston, Massachusetts.
- Kaplan, R.S. & Norton, D. (2001). *The Strategy-Focused Organization*. Harvard Business School Press. Harvard.
- Kennerley, M. & Neely, A. (2003). Measuring Performance in a Changing Business Environment. *International Journal of Operations & Production Management*, 23(2) 213-229
- Khan, M. N. Babar N., Fahad I. Muhammad S. and Hafiz M. I. S. (2016). Impact of dividend policy on firm performance: An Empirical Evidence from Pakistan Stock Exchange. *American Journal of Economics, Finance and Management* 2: 16–25
- Krejcie, R.V. & Morgan D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30: 607-610
- Mashovic, A. (2018). Key Financial and Nonfinancial Measures for Performance Evaluation of Foreign Subsidiaries. *Journal of Contemporary Economic and Business Issues*, 5(2), pp. 63-74
- Mudi, A. Bioku J. O. & Kolawole O.B (2015). Assessing the Characteristics of Nigerian Construction Industry in Infrastructure Development. *International Journal of Engineering Research & Technology (IJERT)*, 4(11), 546-555.
- Munir, R. and Baird, K. (2016). Influence of Institutional Pressures on Performance Measurement Systems. *Journal of Accounting and Organizational Change*, 12(2), 106-128
- Rauch, A., Wiklund, J., Lumpkin, G.T. & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*. 33:761–787.
- Rowe, W.G. & Morrow, J. L. (2009). A Note on the Dimensionality of the Firm Financial Performance Construct Using Accounting, Market, and Subjective Measures. *Canadian Journal of Administrative Sciences*. 16(1), 58-71
- Santos, J. B. & Brito, L. A. L. (2012). Toward a Subjective Measurement Model for Firm Performance. *Brazilian Administration Review (BAR)*, 9(6), 95-117.
- Selvam, M. Gayathri, J. Vasanth, V. Lingaraja, K. & Marxiaoli S. (2016). Determinants of Firm Performance: A Subjective Model. *International Journal of Social Science Studies*, 4(7), 90-100
- Singh, S. & Bhanushali, K. (2012). The Employment Economic Condition of Construction Workers and Their Level of Satisfaction in Ahmedabad City: An Empirical Study. *European Journal of Social Science*, 29(4), 589-601.
- Small and Medium Enterprise Development Agency of Nigeria-SMEDAN & National Bureau of Statistics-NBS (2013). SMEDAN/NBS Collaborative Survey: Selected Findings.
- Smith, T. M. & Reece, J. S. (1999). The relationship of Strategy, fit, Productivity and Business Performance in a Services Setting. *Journal of Operations Management*, 17(2), 145-161.
- Soetanto, R. & Proverbs, D.G. (2004). Intelligent Models for Predicting Levels of Client's Satisfaction. *Journal of Construction Research*, 5(2), 233-255.
- Sousa, S. and Teixeira, J. (2004) Prevention measures to reduce risk of falling from heights (in Portuguese). *IX National Symposium of ISMAI*, Porto: 14–15 October.
- Venanzi, D. (2012). Financial Performance Measures and Value Creation: The State of the Art, SpringerBriefs in Business, DOI: 10.1007/978-88-470-2451-9_2,

- Wiklund, J. & Shepherd, D. (2005). Entrepreneurial Orientation and Small Business Performance: A Cofigurational Approach. *Journal of Business Venturing*, 20(1), 71-91
- Winch, G, (2003). How Innovative is Construction? Comparing Aggregated Data on Construction Innovation and other sectors – A case of apples and pears. *Construction Management and Economics*, 21: 651–654.
- Zulkiffli, S. & Perera, N. (2011). *A literature Analysis on Business Performance for SMES – Subjective or Objective measures?* 2011 Society of Interdisciplinary Business Research (SIBR) Conference on Interdisciplinary Business and Economics Research (pp. 1-9). Bangkok, Thailand:
- Zuriekat, M. Salameh, R. & Alrawashdeh, S. (2011). Participation in Performance Measurement Systems and Level of Satisfaction. *International Journal of Business and Social Science*, 2(8), 160-16.



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