Strategic Management Accounting Practices and Organizational Performance of Manufacturing Firms in Nigeria

Abstract
This study was carried out to examine the relationship between organizational performance of the Nigerian's manufacturing companies and the application of strategic management accounting techniques. The study adopted the survey research design. The population of the study consists of all manufacturing companies in Delta State, Nigeria. The study used simple random sampling. 15 manufacturing companies were randomly selected for the study. Data for the study were obtained through the administration of a self-designed questionnaire to managers or accountants of the sampled firms. Regression and t-test were used to test the hypotheses postulated for the study. The study showed that application of strategic management accounting tools have a positive relationship with organizational performance of companies survey. The study also found a significant difference in effectiveness of decision making between application of strategic management accounting tools and traditional management accounting techniques and concludes that implementation of strategic management accounting practice is necessary to enhance organizational performance of the firm. The study therefore recommends that manufacturing companies, especially the ones operating in Delta State, put in place appropriate measures to apply Strategic Management Accounting tools to ensure efficient and realistic decision making process that will enhance organizational performance.

Key Words: *Strategic Management Accounting, Managerial Decision Making, Organizational Performance.*

Introduction

Background to the study

Conventional management accounting practices were geared towards providing information to aid managers in internal decision making in a firm and as such the focus of the management accounting systems has also tended to be internally orientated. In the late 1980s, scholars and academics particularly (Johnson and Kaplan, 1987; Bromwich and Bhimani, 1989) noticed that the traditional management accounting was not adjusting to changes in the modern business environment hence was fall short of its basic function as an aid to managers in formulating policies and decision making. It is to fulfill the need to enhance the quality of management accounting information for managers it was necessary to focus more widely on the external environment of the firm and thus the concept of strategic management accounting developed. Strategic Management Accounting therefore came into being as a result of a quest for a substitute to the conventional management accounting in providing more relevant and reliable information for competitive advantage. SMA involves the provision of information, which is externally orientated, market-driven and customer-focused and provides managers with a range of techniques and tools to facilitate strategicallyorientated decision making.

Simmonds (1986) described Strategic Management Accounting as the collection of management accounting information about a business and its competitors for use in developing and monitoring the business strategy. SMA permits a firm to make more pertinent and precise information to efficiently design its competitive strategies for competitive advantage in the industry (Egbunike, Egolum & Agwaramgbo, 2015; Ojua, 2016). The SMA is a set of accounting tools that provide accurate and timely information to various aspects of an enterprise's decision making needs, including strategic costing, target costing, competitors accounting, consumer accounting, strategic decision, planning, control and performance management, and evaluation (Alsoboa, Nawaiseh, Karaki & Khattab, 2015). Tillman and Goddard (2008) in their study described SMA as the use of management accounting systems in evaluating strategic decision-making.
SMA techniques, among others, are activity based costing, attribute costing, brand value budgeting, benchmarking, competitive position monitoring, competitor cost assessment, environmental management accounting, life cycle costing, quality costing, strategic costing, target costing, kaizen costing, value chain costing, strategic pricing, and customer accounting (Cinquini & Tenucci, 2010; Ramljak & Rogosic, 2012; Egbunike, Egolum & Agwaramgbo, 2015).

The business environment is changing globally. The swift changing of business environment recently into global, competitive and turbulence business environment give significant impact to how people doing their business in any type of corporation, either manufacturing or non-manufacturing company, either big, medium or small company and either profit oriented or non-profit company. For companies to be able to compete in the modern business environment, management accountings practices have to assure that information provided to managers are relevant and useful in doing their jobs. There has been a tremendous change in the business environment in both developing and developed economies. The changes range from the breaking of obstacles to trade allowing for global competition which in turn has been possible because of advances in technology. The increase of competition has had the effect of shortening the lifecycle of products. This means that organizations have to put in extra efforts in innovation and development new products and services and have less chance to recover costs and generate profit before the decline of the product or service. Consequently, the advancement in technology has given more information to the customer allowing the customer to make better informed decisions about which products and services they wish to buy and also to allow the customer to be more proactive in selecting products and services which are tailored specifically for them. All these developments have forced businesses to reflect on the changing circumstances and the need to approach management accounting and decision making in a different way than they had done in the past. The search for strategic management accounting tools, especially in the manufacturing sector, should therefore be at the forefront for development of innovative competitive strategies that may enable modern organization to remain profitable and competitive. How much awareness do the Nigerian accountants and managers have about strategic management accounting? To what extent are SMA tools adopted in Nigerian business organisations? What impact does SMA have in organizational performance of manufacturing companies? How does strategic management accounting practice affect management decision making in manufacturing firms in Nigeria? These are some of the questions this study seeks to address.

Statement of the problem

Today's global business environment is becoming more and more competitive. Companies more than ever before are faced marketing challenges and hence are adopting aggressive and dynamic methods in identifying strategies that will ensure profitable existence. Business innovations, advancement in technology and the changing demand of customers have brought more competition in business and marketing. The competitive nature of contemporary business atmosphere has forced corporate managers to cultivate business techniques and strategies that would guide an organization towards the maximization of profits. This business objective can be achieved through increased sales and reduced cost of production. The optimization of profits and minimization of costs may enable an organization to create a competitive advantage in its industry. Suffice to say that traditional management accounting practices may not be able to address such challenges. Strategic management accounting practices provide strategies that can influence a large number of customers to have a lasting preference for a company's products (Ramljak & Rogosic, 2012).

According to Thompson, Strickland and Gamble (2009), the adoption of strategic management accounting techniques may provide an organization with a sustainable competitive advantage over its rivals. Management accounting needs have evolved from mere reporting of historical information, especially on variance analysis, to taking part in the strategic planning process of an organization. Thompson et al further contended that SMA skills are actively applied in the business environment where both market intelligence is sought and evaluated, and strategic decisions are made and competitive strategies put in place. These measures are particularly important in the manufacturing sector where efficiency and cost effectiveness may be used as a competitive tool for growth and profitability.
Strategic Management Accounting has received global publicity in recent times as a new view of awareness in the provision of financial and non-financial information for strategic initiatives and positioning. However, there is still lack of accounting literature and empirical studies in developing countries like Nigeria on the effectiveness of Strategic Management Accounting practices on organizational performance. This study seeks to fill this gap by examining the effect of adoption of strategic management accounting practices on manufacturing companies with emphasis on companies located in Delta State of Nigeria.

Objectives of the Study

The broad objective of the study is to examine the effect of use of strategic management accounting tools on organizational performance of manufacturing companies. Specifically, the study seeks to:

(i) Examine the relationship between strategic management accounting practice and organizational performance of manufacturing companies in Nigeria; and

(ii) Investigate the effect of strategic management accounting practices on management decision making.

Research Hypotheses

To answer the research questions and achieve the research objectives, the study will subject the following hypotheses which are stated in the null form to empirical test:

Ho_1: Application of strategic management accounting tools does not have significant effect on organizational performance of Nigerian manufacturing companies.

Ho_2: There is no significant difference in effectiveness of strategic management accounting and traditional management accounting tools on management decision making.

Literature Review

Concept of Strategic Management Accounting

There is no generally accepted definition of Strategic Management Accounting. Accountants and researchers are yet to come to a consensus as regards the contents and scope of strategic management accounting hence there is no comprehensive framework available on strategic management accounting. Some attempts have been made to define strategic management accounting.

One of the earliest definitions was given by Simmonds (1986) who is viewed as the father of management accounting. Simmonds views strategic management accounting as the provision and analysis of management accounting data about a business and its competitors which is of use in the development and monitoring of the strategy of that business. Bromwich and Bhimani have given the following definition of strategic management accounting:

> *"provision and analysis of financial information on the firm's product markets and competitors' costs and cost structures and the monitoring of the enterprise's strategies and those of its competitors in these markets over a number of periods"* Bromwich and Bhimani (1989)

Puolamäki (2004) described SMA as a process of using management accounting systems (explicit and quantitative information) to support strategic decision-making of a business in a competitive economy. Roslender and Hart (2010) review much of the literature and argued that three different notions of strategic management accounting have emerged. Firstly, the attempt to integrate strategic ideas into management accounting by taking generic strategy tools and looking at what management accounting information can be used to support strategy. Secondly, that it is designed to align management accounting with marketing management for strategic positioning. This view looks at the marketing tools used by businesses and uses management accounting within those tools. Thirdly, that SMA is just a name to group together many of the modern methods in management accounting that have developed which have a strategic implication. There are a number of contemporary approaches to management accounting which have been marked as strategic management accounting techniques because of their external and market orientated content (Roslender & Hart, 2010).

Strategic management accounting uses a number of distinctive characteristics of the technical methods and means to smooth corporate strategic management. The practical application of these methods has also gained great success. Some SMA techniques are discussed below:

Activity Based Costing.

Activity-based costing is a costing procedure that identifies activities in an organization and assigns the cost of each activity with resources to all products and services according to the actual consumption by each (Egbunike, Egbunike & Mofolusho, 2013). ABC's basic idea is: product consumption operation, the operating consumption costs, operating cost structure by product cost. The main purpose is to eliminate non-value added role in raising value added operational efficiency and effectiveness. ABC method used to overcome the traditional cost accounting system of clear responsibilities under the indirect costs of defects, so that the indirect costs of the growing technology base sufficient attribution to a variety of products go up, which can greatly enhance the authenticity of cost information (Egbunike, Ijeoma & Ebubeogu, 2015).

Balance Score Card

The balanced scorecard (BSC) is a strategic planning and management system that organizations use to: Communicate what they are trying to accomplish. Align the day-to-day work that everyone is doing with strategy. Prioritize projects, products, and services. Measure and monitor progress towards strategic targets (Maisel, 1992). The system connects the dots between big picture strategy elements such as mission (our purpose), vision (what we aspire for), core values (what we believe in), strategic focus areas (themes, results and/or goals) and the more operational elements such as objectives (continuous improvement activities), measures (or key performance indicators, or KPIs, which track strategic performance), targets (our desired level of performance), and initiatives (projects that help you reach your targets (Kaplan & Norton, 2000)

Target Costing

Target costing is a strategic cost management is an important tool, it is based on customer demand, product planning and design stage, functional cost analysis, to continue to reduce costs, enhance competitiveness as a cost management approach. Target Costing to focus on effective implementation of corporate financial performance goals, develop a product cost-based approach and methodology (Jacomit, Granja, Picchi, 2008). Target costing inspection costs from the market point of view, indicating the direction of cost-control efforts should be made in the design stage of new product development to lower the cost of the respective requirements. Put simply, target costing is an approach to determine a product's life-cycle cost which should be sufficient to develop specified functionality and quality, while ensuring its desired profit. It involves setting a target cost by subtracting a desired profit margin from a competitive market price (Zimina, Ballard, Pasquire, 2012; Hibbets, Albright & Funk, 2005*)*.

Value Chain Analysis

Value chain analysis is a strategy tool used to analyze internal firm activities. Its goal is to recognize, which activities are the most valuable (i.e. are the source of cost or differentiation advantage) to the firm and which ones could be improved to provide competitive advantage. Value chain, value chain can be divided into horizontal and vertical value chain (Grant, 2010). Horizontal value chain refers to the enterprises from the original sources of raw materials suppliers to the final consumption of finished products between each link had to be unbundled to inspect the assets allocated to each job number and cost-effectiveness of state to determine for each activity cost driver in order to better understand the behavior of the cost and product advantages arising from the source. Put the vertical value chain, each enterprise is the creation of jobs as the entire value chain in a ring made from the most basic raw materials to final product disposal after use the entire value chain level, break down the costs and benefits of products as a way to adjust the business the value chain structure.

Early Warning Analysis

Early warning analysis is a forecast may be the competitive position of enterprises and financial situation of potential factors, to remind the management's attention to the analysis of the reporting system. It does this by closely monitoring changes in the waxing and waning market share, analysis, and competitor strengths and weaknesses compared to companies to predict the next 2 ~ 3 years, a major event that may arise, and to remind management's attention, seize opportunities, take measures to hedge against in the before they occur (Ansoff, 1980),. Early warning analysis can be divided into external analysis and internal analysis. Analysis of the external analysis of major enterprises in which the industry and trends in the industry, enterprises are facing market conditions and market share. Analysis of the internal analysis of major labor productivity, mechanisms operating efficiency, inventory cost control and the stability of the workforce (Cevolini, 2016)

Quality Cost Analysis

Quality cost analysis in-time production system arises from the requirements of zero-defect products, is an enterprise quality using non-monetary indicators, comprehensive reflection and analysis of product research, development, design, manufacture, through to after-sales service companies throughout the cycle improve the quality and service with regard to the efforts and achievements. Quality of the product cost can be divided into prevention costs, appraisal costs, internal quality loss cost and external quality loss cost. Only in complete control of enterprise managers and quality-related cost information is correct only after the quality of cost estimates, to improve the quality of the performance evaluation methods (Knouse, 1996).

Product-cycle Approach

The product life cycle describes the period of time over which an item is developed, brought to market and eventually removed from the market. The cycle is broken into four stages: introduction, growth, maturity and decline (Steefens, 2002). The idea of the product life cycle is used in marketing to decide when it is appropriate to advertise, reduce prices, explore new markets or create new packaging. Product life-cycle management (PLM) is the succession of strategies by business management as aproduct goes through its life-cycle. The condition in which a product is sold (advertising, saturation) changes over time and must be managed as it moves through its succession of stages (Anderson & Zeithaml, 1984).

Concept of Organizational Performance

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). It is the objective of any organization because only through performance, are organizations able to grow and progress (Gavrea, Ilies & Stegerean, 2011). According to Richard et al. (2009) organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.

Organizational performance refers to how well an organization is doing to reach its vision, mission, and goals. Assessing organizational performance is a vital aspect of strategic management. Executives must know how well their organizations are performing to figure out what strategic changes, if any, to make. Performance is a very complex concept, however, and a lot of attention needs to be paid to how it is assessed (Upadhaya, Munir, & Blount, 2014)

Methodology

Survey research design was used in this study. This research strategy was considered necessary because of its ability to view comprehensively and in detail the major questions raised in the study. The population consists of all manufacturing companies operating in Delta State. 5 manufacturing companies were randomly selected from three major commercial and industrial cities in the state making a total of 15 manufacturing firms for the study. Data for the study were obtained through the administration of a self-designed questionnaire to managers or accountants of the sampled firms. The questionnaire was structured to elicit information about the adoption, use, strategies and method of strategic management accounting tools in the organization. The data were analyzed to bring out the descriptive and inferential statistics. The hypotheses formulated for this study were tested using the chi square and t-test analyses at 0.05% level of significance.

Data Analysis and Presentation

Test of Hypotheses

This section relates to the testing of hypotheses earlier stated in this study. For the sake of understanding, the hypotheses will be restated before presenting the result analyses.

Hypothesis One: Application of strategic management accounting tools does not have significant effect on organizational performance of Nigerian manufacturing companies.

Table 01: Regression Statistics for Application of SMA and Organisational Performance

Model	Sum of Squares	df	Mean ^{2}	F	Sig	R	R^2	Adjusted R^2	*SEE*
1 Regression	261.744	1	261.744	3.451	.040(a)	.458(a)	.210	.149	8.709
Residual	985.856	13	75.835						
Total	1247.600	14							

a Predictors: (Constant), Application of SMA Tools
b Dependent Variable: Sales Growth.

The summarized regression results in table 01 show that the multiple regression model is weakly significant. The co-efficient of determination or R^2 is .210. This shows that the model is able to explain about 21 percent of the variations of the growth. Further, the Analysis of Variance (ANOVA) provides a statistic for testing the hypothesis that there is a weak positive relationship between growth of manufacturing companies and the predictor variables (application of Strategic Management Accounting techniques). Correlation exist between the response and predictor variables if P-value < 0.05. As shown in table, P-Value $= 0.040 < 0.05$ indicated that there is enough evidence to support the alternative hypotheses, that there is a linear relationship (weak) between organizational performance and use of SMA techniques.

Hypothesis Two: There is no significant difference in effectiveness of strategic management accounting and traditional management accounting tools on management decision making.

Table 02: t-test Table for SMA and MA

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
SMA	23.482	14	.000	4.26667	3.8770	4.6564
MA	12.220	14	.000	1.60000	1.3192	1.8808

A One-sample t-test was conducted to compare the level of effectiveness between the application of SMA and MA tools in decision making. There was a significant difference in the scores for SMA (t=23.482) and MA (t=12.220), Mean diff (SMA = 4.27, MA = 1.6) p = 0.000. These results suggest that there is a significant difference in the level of effectiveness in application of SMA and MA in management decision making in manufacturing companies in Nigeria.

Discussion of Findings

The study was undertaken to examine the effect of application of Strategic Management Accounting Practices on organizational performance in Nigeria. Based on the data obtained from the survey results of the sampled firms, the study summarizes the findings as stated below:

1. That implementation of strategic management accounting techniques still very low in Nigeria's manufacturing firms.
2. Based on the study hypothesis, the study finds an empirical evidence to support the claim that there is a positive relationship between application of strategic management accounting tools and organizational performance.
3. Findings of the study also reveal a significant statistical difference between effectiveness of strategic management accounting and conventional management accounting tools in decision making. The implication is that manufacturing companies that adopt and implement SMA make better informed economic and business decision due to the superiority of the SMA techniques.

Conclusion and Recommendation

This study was carried out to examine the relationship between organizational performance of the Nigerian's manufacturing companies and the application of strategic management accounting mechanisms. The uniqueness of our analysis comes from its disaggregation of investigative variables into a number of alternatives based on data analysis from the survey carried out.

The study showed that application of strategic management accounting tools have a positive relationship with organizational performance of companies survey. The study also found a significant difference in effectiveness of decision making between application of strategic management accounting tools and traditional management accounting techniques and concludes that implementation of strategic management accounting practice is necessary to enhance organizational performance of the firm. The study therefore recommends that manufacturing companies, especially the ones operating in Delta State, put in place appropriate measures to apply Strategic Management Accounting tools to ensure efficient and realistic decision making process that will enhance organizational performance.

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