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MANAGEMENT ACCOUNTING INFORMATION AND CORPORATE PERFORMANCE OF MANUFACTURING COMPANIES IN RIVERS STATE, NIGERIA

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ABSTRACT: *Since the industrial revolution era, management accounting has become a recognized field of accounting practice. However, many organisations (manufacturing companies inclusive) do not completely appreciate the need for the institution of a full-fledged management accounting system to support managerial decision making. This could be basically attributed to the lack of knowledge of what constitutes management accounting information and the fact that financial reporting mentality still dominates the accounting activities and procedures of many manufacturing companies. The main objective of this study was to establish the nature of the relationship between management accounting information and corporate performance of manufacturing companies in Rivers State, Nigeria. To achieve the primary objective of the study, the cross-sectional survey design was adopted. The population of the study was made up of the thirty-two (32) manufacturing companies in Rivers State registered with the Rivers/Bayelsa State branch of the Manufacturers Association of Nigeria (MAN). All the population elements make up the sample of this study; hence, a census of the population was done. Purposive sampling technique was adopted in selecting ninety-six (96) respondents for the purpose of data collection. Data collection was done primarily using structured questionnaire. Analysis of data was carried out using descriptive statistics while linear regression and correlation analysis were used in testing the hypotheses. The investigation revealed that a positive linear relationship exists between management accounting information and corporate performance of manufacturing companies in Rivers State and that management accounting information accounts for less than 10% of change in corporate performance (measured using net profit). The study concluded that the performance of a manufacturing company does not substantially depend on management accounting information since the correlation between the two variables is very weak. One of the recommendations made was that management of manufacturing companies should continue to demand management accounting information so as to sustain the positive relationship that has been identified to exist between management accounting information and corporate performance.*

KEYWORDS: Management Accounting Information, Budgeting, Budgetary Controls, Corporate Performance, Net Profit.

INTRODUCTION

Before the industrial revolution, management accounting was not a recognised field of accounting practice. So many organisations relied solely on financial accounting information whereas management accounting was relegated to the background. Thus, the industrial revolution gave primary impetus for the practice of management accounting. The industrial revolution era was a period characterized by separation of ownership of business from management, large scale production as well as complex management structures, thereby increasing the need for accounting information to assist management in planning and controlling the operations of the entity and in decision making.

All levels of management within an organisation require management accounting information for decision making. Essentially, the success or failure of an enterprise is to a very large extent determined by the quality and quantity of information available to the management for decision making. A reliable and relevant source of information for management decision making is the management accounting system. Management accounting is concerned with providing information to managers, that is, those within an organisation who direct and control its operations (Garrison & Noreen, 1999). Managerial accounting information – which is the result of management accounting data processing – includes information on the costs of an organisation's products and services, budgets, performance reports and other information which assists managers in their planning and control activities. Thus, management accounting systems are mainly designed to measure the efficiency of internal processes (Horngren & Foster, 1987; Kaplan & Norton, 2001). As the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources, management accounting is instrumental in the strategic positioning of an enterprise.

To achieve its short and long team objectives, an organisation most, at regular intervals, evaluate its performance. Corporate performance is a term which describes the relationship between organisational input and output. It is a measure of the effectiveness of management in utilising resources to achieve the nominated objectives of the enterprise. A major contributor to the achievement of organisational objectives is the information available to management for directing, planning and controlling the enterprise. The management accounting system provides the required information, which enhances internal decision making. Though there are other factors and systems that enhance the corporate performance of an enterprise, it is important to acknowledge that the management accounting information system is a value adding system which guides management action, motivates behaviour, and supports and creates the cultural values necessary to achieve an organizations strategic, tactical and operating objectives.

Even though the industrial revolution gave a primary impetus for the practice of management accounting, yet most business organisations (manufacturing companies inclusive) do not completely appreciate the need for the institution of a full-fledged management accounting system to support managerial decision making. There is also the issue of what type of information should be reported by accountants; while the problem for management is what information should be demanded. The relevance and importance of management accounting information has often been undermined if not completely ignored by most manufacturing companies. Ironically, manufacturing companies require management accounting information relating to raw material costing, labour as well as finished goods. Furthermore, financial reporting mentality still dominates the accounting activities and procedures of some manufacturing firms in Rivers State, Nigeria. This could be basically attributed to the lack of knowledge of what constitutes management accounting information.

LITERATURE REVIEW

Conceptual Framework

Meaning of Management Accounting

So many scholars and authors have in a bid to give meaning to the term "management accounting", made valuable contributions to enhance the understanding of the concept. One of the simplest definition of management accounting is that management accounting is the process of providing useful information to managers (Bruns & McKinnon, 1993). This definition implies that management accounting encompasses communicating and reporting of accounting information as well as the control of the systems and processes by which the information reaches the managers.

The Chartered Institute of Management Accountants (CIMA) (1991) defined management accounting as the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for resources. Thus management accounting is concerned with identifying, presenting and interpreting information used for: formulating strategies, planning and controlling activities, decision making, optimizing the use of resources, disclosure to those charged with governance of the entity, disclosure to employees, and safeguarding assets.

Management accounting measures, analyzes and reports financial and non-financial information that helps managers to make decisions to fulfill the goals of an organisation (Horngren, Datar, Foster, 2006; Drury, 1992; Kaplan, 1984). In essence, management accounting is a body of knowledge, the understanding of which is necessary for the success of managers. Managers use management accounting information to choose, communicate and implement strategies. They also use management accounting information to coordinate product design, production, and marketing decisions. Management accounting enhances decision making, guides strategy development and evaluates existing strategies and focuses effort related to improving organisational performance and evaluating the contribution and performance of organisational units and members (Kaplan, 1995).

In his contribution to the concept of management accounting, Sizer (1989) posited that management accounting is the application of professional skills in the preparation and presentation of accounting information in such a way as to assist management in the formulation of policies and in the planning and control of the operations of the undertaking. This definition is synonymous with that given by Hendrickson (2001) which states that management accounting is the information support system that best facilitates communication, motivation and performance evaluation within a variety of organisational structures. Internal management accounting is responsible for providing information and helps managers make decisions on the efficient and effective use of enterprise resources. Thus, management accounting is an essential tool for managerial decision making vis-à-vis planning, controlling, motivation, directing as well as communication.

A very close look at the various definitions of management accounting will reveal that management accounting is concerned with providing information to managers for decision making. In essence, management accountants are seen as the "value creators" amongst accountants. They are interested in the future and in taking decisions that will affect the future of the organisation, then in the historical recording and compliance aspects of the profession.

Concept of Accounting Information

Accounting information can rightly be described as the language of business. Accounting is often analysed as a series of activities which are linked and form a progression of steps beginning with observing, collecting, recording and analyzing and communicating information to users. The task of the accountant is to transform raw data into information. Data is a collection of raw facts expressed as symbols and characters which have no meaning and are unable to influence decisions until transformed into information. Accounting information is a very essential ingredient or tool in the management decision making process. Management need information which relates to their past performance, cost classification and clarification, profit contribution of product lines, cost control, etc; the accounting information system provides this information.

Trevor (1983) defined accounting information as whatever contributes to the diminution of ignorance or uncertainty surrounding an impending decision. Thus, accounting information eliminates to a reasonable extent the existence of ignorance and uncertainty. Accounting information can be obtained through the development and analysis of data; testing of their validity, reliability or relevance; interpretation and communication of result to intended users.

Accounting information is also viewed as any economic information, that is, any data which might cause a decision maker to reallocate or redistribute wealth among individuals (Neumann, 1981). The information provided by an accounting system is primarily monetary in nature and helps management in planning, in carrying out the day-to-day operations of the business and in arriving at solutions to operational problems.

In the opinion of Coster (1974), an accounting information system refers to the methods by which financial data about a firm's activities are collected, processed, stored and distributed to members of the firm or other interested parties. Thus, any data or information which is obtained from or created in the accounting system of a firm is an accounting information whether or not contained in the financial statements.

From the foregoing, it can be deduced that accounting information is any information that provides insight on the resources, obligations, and performance of the reporting entity or enterprise. Such information is required by a variety of users and is basically contained in the financial statements or management internal (accounting) reports (Ukpai, Kiabel & Obara, 1998). However, the set of accounting information users that this study focuses on is management. Management of any firm is the custodian of the firm's wealth and determines to a large extent the firm's level of performance. Accounting information is necessary for management analysis used for planning and control. Thus, management require accounting information as it guides them in making decisions bothering on finance, investment, liquidity, profitability and in monitoring the firm's performance. Management also needs accounting information to make budgets, control operations, assess the adequacy of financing, ascertain the cost consequences of a particular course of action and to project future earning and financial position.

Brief History of Management Accounting

According to Maher (2001), management accounting has a short but exciting history. He pointed out that management accounting concepts can be traced to the beginning of the industrial revolution, and that, management accounting, as a teaching discipline appears to have gotten off the ground in the late 1940s. Thus, management accounting has its roots in the industrial revolution of the 19th century. During this period, most firms were tightly controlled by a few owner-managers who borrowed based on their personal relationships and assets.

Parker (2002) pointed out that management accounting has historical antecedents that stretch back longer than we might expect and certainly, accounting historians have not yet concluded their investigation of its earliest genesis. The historical development of management accounting is of particular importance in answering relevancy questions in a rapidly developing technological environment.

Documented materials indicate that management accounting existed before the classical period (1700 – 1950s). According to the international Federation of Accountants (IFAC) (2002), the first management accounting revolution occurred before the classical period which ended in the late 1950s. Prior to the first management accounting revolution, the term management accounting was not in common use, rather cost accounting was used in the computation of costs and for financial control. Although management accounting was not recognised before the 19th century when masses of financial information had to be recorded, it is quite possible that business men were already using management accounting concepts at the time.

The first management accounting revolution, which became known as the “modern management accounting period”, started in the late 1950s and ended in the early 1980s (Epstein & Lee, 1999). This period was characterized by new research as a result of which academic accountants provided new decision-making tools for managers. According to Epstein & Lee (2008), the management accounting tools that were developed during this period reflected economic theory and were based on the following assumptions:

(1) Tasks are routinised at the managerial and operational levels.

(2) The external environment (in which the company operates) is stable with few price or demand fluctuations.

(3) The sole purpose of management accounting is to aid decision making.

This modern management accounting period was deeply rooted in the Ford Foundations initiative to restructure management accounting education in the United States (Maher, 2000).

Between 1980 and 1999 (the period known as the “post-modern period” of management accounting), management accounting was characterized by a shift from the mechanistic view of organisations to acknowledging a complex set of organisational interdependencies. During this period, management accounting systems focused on the attainment of organisational goals and on extending the management accountant’s ability to measure newer and more complex business situations and consequently affected practice as well as research issues (Epstein & Lee, 1999).

Differences Between Financial and Management Accounting

Although financial and management accounting constitute two different fields of study, one cannot exist without the other. However, financial accounting differs from management accounting in a number of ways. A basic difference between financial and management accounting lies in the fact that financial accounting is primarily externally oriented while management accounting is primarily internally oriented. Thus, financial accounting provides information to parties outside the organisation (e.g creditors, investors, government agencies and the general public), whereas management accounting generates confidential information for use by an entity's management.

Other areas where financial accounting and management accounting differ are discussed under the following headings (Garrison & Noreen, 2006).

(1) **Emphasis on the Future**: Since planning is an important part of the manager's job, managerial accounting has a strong future orientation. In contrast, financial accounting primarily provides summaries of past financial transactions.

(2) **Relevance of Data**: Financial accounting data are expected to be objective and verifiable. However, for internal use the manager wants information that is relevant even if it is not completely objective or verifiable. By relevance is meant appropriate for the problem at hand.

(3) **Less Emphasis on Precision**: Timeliness is often more important than precision to managers. If a decision must be made, a manager would rather have a good estimate now than wait a week for a more precise answer. Estimates that are accurate may be precise enough to make good decision. Since precision is costly in terms of both time and resources, management accounting places less emphasis on precision than does financial accounting. In addition, management accounting places considerable weight on non-monetary data, for example, information about customer satisfaction is of tremendous importance even though it would be difficult to express such data in monetary form.

(4) **Segmental Reporting**: Financial accounting is primarily concerned with reporting for the company as a whole. By contrast, management accounting focuses much more on the parts or segments of a company. These segments may be product lines, sales territories, divisions, departments or any other categorizations of the company's activities that management may find useful. Financial accounting does require breakdowns of revenues and costs by major segments in external reports, but this is a secondary emphasis. In management accounting, segment reporting is the primary emphasis.

(5) **Generally Accepted Accounting Principles**: Financial accounting statements prepared for external users must be prepared in accordance with Generally Accepted Accounting Principles (GAAP). External users must have some assurance that the reports have been prepared in accordance with some common set of ground rules. These common ground rules enhance comparability and help reduce fraud and

misrepresentations, but they do not necessarily lead to the type of reports that would be most useful in internal decision making.

(6) **Management Accounting is not Mandatory:** Financial accounting is mandatory, that is, it must be done, but management accounting is not mandatory. An organisation is completely free to do as much or as little management accounting as it wishes. No regulatory bodies or agencies, specifies what is to be done.

Components of Management Accounting Information

What constitutes management accounting information depends on the nature of the organisation and the information need of management. As stated earlier in this study, management accounting information is provided for managerial decision making. Management accounting information often take the following forms:

(1) **Forecasting/Financial Planning:** All businesses, irrespective of their size, must conduct strategic planning in order to remain competitive. Forecasting is the process of planning for future operations through the use of forecasts. The goal of the forecasting process is to try to predict the outcome of future operations through trend analysis. Trend analysis takes past revenue, sales and growth statistics and carries these calculations into future periods. For example, if the average revenue growth rate has been ten (10) percent, then the forecast model will use and annual growth rate of 10 percent.

(2) **Cost Accounting Calculations/Estimates:** Management accounting information can be obtained from an organisation's cost accounting system. According to Braide (2000), cost accounting encompasses the procedures and processes involved in ascertaining the cost of a tangible product or an intangible service. He pointed out that the purpose of cost accounting is to aid management in planning and controlling the operations of the enterprise. Cost accounting provides a basis for estimating and also provides information that enables estimates to be checked against actual achievement. Through the medium of cost accounting, cost data can be provided that can be used in the resolution of particular management problems such as product pricing, make or buy decision, expansion of facilities for increased production or sales.

(3) **Budgets and Budgeting:** The Institute of Chartered Accountants of Nigeria (ICAN) (2006) defined a budget as a financial and/or quantitative plan of the operations of an organization for a forthcoming accounting period. According to Braide (2000), a budget is a detailed plan indicating the things which a business organisation intends to do during some defined future time interval. Budgeting embraces the totality of the processes or procedures involved in preparing a budget. In other words, a budget is the end-product of the budgeting process (Braide, 2000).

According to Horngren (2004), budgets are designed to: communicate ideas and plans to every one affected by them, coordinate the activities of different departments or sub-units of the organisation, establish a system of control by having a plan against which actual results can be progressively compared and variance analysed for prompt attention and action, and to motivate employees to improve their performances. The budget process allots capital (money) for future operations.

(4) **Standard Costing:** Management accounting formation can also be obtained via the organisation's standard costing system. Standard costing is a cost accounting technique which attempts to determine what the cost of manufacturing a product or rendering a service will be during a given specified future period (Braide, 2000). Thus, standard cost is a predetermined cost of manufacturing a product or providing a service. Managers can utilize standard costing in controlling costs. The operation of a standard costing system presupposes the existence of an in-built mechanism whereby actual cost incurred are periodically compared with the standard costs. Apart from serving as a control mechanism, standard costs are also useful in performance measurement, stock valuation and in the establishment of selling prices. Some of the basic reasons why firms adopt a standard costing technique are: to encourage management and employees, since it ensures that they have to plan ahead; to serve as a basis for quoting for jobs or fixing prices, to ensure that performance improvement measures are adequately guided; as well as to provide a basis for setting budgets.

(5) **Ratio Analysis:** Ratio analysis provides management with information that can enhance decision making vis-à-vis profitability assessment, liquidity measurement as well as short and long term solvency decisions. A ratio is a measure of the mathematical (or financial) relationship between two or more accounting figures (items) such that qualitative opinion about a company's financial results can be expressed at a particular point in time. Ratio analysis forms the basis for assessing the financial results and performance of a company using accounting data or figures that make the measurement of financial relationship possible. In essence, ratio analysis can be used to determine a company's effective use of raw materials and inventory, to determine what receivables collection periods would be, as well as to assist in determining the strengths and weaknesses of a firm and also serve as a tool for predicting the future.

(6) **Capital Investment Analysis:** This can aid a firm in its decision on how its current funds can be invested in long term activities in anticipation of an expected flow of future benefits over a number of years. The investment decisions could be in the form of acquisition of additional fixed assets, replacements, and modification of activities or expansion of a plant. Capital investment techniques which provide management information for decision making may include the payback period, accounting rate of return, net present value (NPV), and the internal rate of return (IRR).

Importance of Management Accounting Information

Management accounting information is relevant to the overall well-being of a business organisation. As already mentioned earlier in this study, management accounting information aids managers in making decisions vis-à-vis what line of action to take to improve efficiency. Management accounting information is particularly important in the following areas (Drury, 2004; Garrison & Noreen, 2000).

(1) **Planning:** Planning is very essential in every organisation. An entity needs to plan the location of its plants, introduction of new production lines and the strategies required to maintain the assets of the firm. Management accounting information assists managers to make cost –benefit analysis of each alternative and the best decision taken. Any decision, taken by management in the planning process has an effect on costs and revenue; management accounting information is essential in estimating those effect.

(2) **Directing and Controlling Operations:** Operational activities form an integral part of any process. The control function enables managers to ensure that activities conform to standards. Detailed reports of various kinds prepared by the management accountant provide feedback as to whether set standards are being met. Management accounting information are very essential in inventory control, total quality management and benchmarking.

(3) **Motivation:** A well-motivated staff enhances performance and productivity. Organisations are able to achieve their goals if employees are well motivated. Management accounting information such as those contained in budgets motivates organisational members to direct their efforts towards achieving the objectives of the organisation.

(4) **Performance Measurement:** Management accounting information assists management in measuring the performance of employees and in executing organisational objectives. Performance measurement is used as a basis for rewarding performance through positive feedback, promotions and pay rises. Through management accounting information, the performance of various sub-units, product lines, geographical units and divisions can be measured. These measures are important in determining whether a particular process or sub-unit is an economically viable unit.

(5) **Competitive Position Assessment:** Globalisation has heightened competition among industries. Management accounting information plays a crucial role in ensuring that an organisation competes effectively and survives competition. The financial strength of an organisation must be prominent on the agenda of management. Information provided by the management accounting system aids the organisation in its pricing decisions, cost-benefit analysis, adoption of a particular production method, make or buy decisions, inventory management and outsourcing. The management accounting information system provides the necessary data for these very essential decisions to be made.

Concept of Corporate Performance

The subject matter of corporate performance lacks a cohesive body of knowledge. So many researchers in areas as diverse as strategic management, operations management, human resources management, organisational behaviour, information systems, marketing and management accounting and control have contributed to the concept of corporate performance (Neely, 2002; Marv & Schiuma, 2003; Franco-Santos & Bourne, 2005). Thus, there are numerous definitions of the concept and little consensus regarding its components and characteristics.

To effectively understand the concept of corporate performance, it is necessary to define performance. Performance is the accomplishment of a given task measured against present standards of accuracy, completeness, costs, and speed (Www.businessdictionary.com, 2011). It is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities. From the foregoing definition, corporate performance can be conceived as the accomplishment of organisational objectives based on predetermined standards. According to Thomas & Baron (1994), corporate performance is a broad term that covers both the economics and operational aspects of an organisation's activities. It includes almost any objective of competition and manufacturing excellence, whether it is related to cost, flexibility, speed, dependability or quality. Furthermore, corporate performance can be described as an umbrella term for all concepts that considers the success of a company and all its activities.

Further examination of literature on performance indicates that the term "performance" is used interchangeably with the term "productivity". It is therefore important to understanding the meaning of productivity. Productivity is the quantitative relationship between output and input (Iyaniwura & Osoba, 1983; Antle & Capalbo, 1988). This definition is a universally acceptable one as almost all definitions of the term view productivity in the context of an enterprise, an industry or an economy as a whole as well as the relationship between the quantity and quality of goods and services produced and the quantity of resources used to produce them.

The basic content of the various definitions of the twin concepts of productivity and performance seem to be the same. Within many of the definitions, three broad categorizations suffice vis: the technological concept, i.e. the relationship between ratio of output to the inputs used in its production; the engineering concept, i.e. the relationship between the actual and the potential output of a process; and the economist concept, i.e. the efficiency of resource allocation (Broman, 2004; Ghobadian & Husband, 1990).

According to Kreitner & Kinicki (1998), corporate performance can be measured using four generic effectiveness criteria vis:

(1) **Goal Accomplishment:** Performance can be measured by comparing key organisational results or outputs with previously stated goals or objectives. Corporate performance, relative to the criteria of goal attainment, is gauged by how well the organisation meets or exceeds its goals.

(2) **Resources Acquisition:** This criterion relates to inputs rather than outputs. An organisation's performance is deemed effective in this regard if it acquires necessary factors of production.

(3) **Internal Processes:** This is referred to as the "healthy systems criteria". An organisation is said to be a healthy system if information flows smoothly and if employee loyalty, commitment, job satisfaction, and trust prevail. Thus, goals may be set for any of these internal processes.

(4) **Strategic Constituencies Satisfaction:** Organisations depend on people and affect the lives of people. A constituency is any group of individuals within or outside an organisation who have some stake in the organisation. Effective corporate

performance can be measured by how satisfied each stakeholder (shareholder, suppliers, employeers, etc) is with the organisation.

Management Accounting Information and Corporate Performance

The issue of how management accounting information contributes to a firm's performance has received limited attention in academic research. Thus, this section examines the contribution of management accounting to corporate performance and the factors that drive that performance.

As stated earlier in this study, the management accounting system provides accounting information that assists management in its internal decision making. According to Nevries & Langfield-Smith (2010), the contribution of management accounting to corporate performance can be conceptualized using relevant dimensions of firm performance such as decision quality, adaptability, customer and market effectiveness, and financial performance. Management accounting information serves the internal market of the firm. Information provided by the management accounting department of a firm support decisions relating to services to be offered, service mix and the use of resources (David, 2005).

Management accounting departments positively affect corporate performance through the processes and systems that they implement and use to support management and the strategies of the firm. Management accounting departments design the necessary management control system that suit the various contingencies faced by their firm (Chenhall, 2003; Langfield-Smith, 1997). Again, it is through management accounting that decision-relevant information is supplied, performance measured and balanced scorecard developed (Granlund & Lukka, 1998; Ittner & Laccker 1997; Kaplan & Norton, 1996). Thus, management accounting supports the implementation and monitoring of decisions.

It is important to note that most organisational strategic decisions are dependent on the information provided by the management accounting information system. Such decisions ultimately impact on performance. For example, decisions relating to make or buy, capacity expansion, capital investment, product pricing etc are dependent on management accounting information. Studies have also shown that business organisations adopt management accounting techniques such as activity based costing (ABC), just-in-time (JIT) and total quality management (TQM) to obtain benefits that directly or indirectly impact corporate performance (Roberts & Sylvester, 1996; Dixon, 1996).

Empirical Review

Table 1 below summarises some of the research works reviewed in the course of this study in respect of management accounting information and corporate performance as well as related subject matters.

Table 1: Summary of Empirical Literature

Author(s)/ Year	**Objective**	**Research Design/Method (s) of Analysis**	**Finding(s)/ Conclusion**	**Recommendation(s)**
Gnawali, A. (2017)	To examine the effect of manangement accounting system on organisational performance of Napanese commercial banks.	Survey/regression analysis.	Positive relationship exist between management accounting system and organisational performance.	None
Okpala, K.E., Afolabi, T.S. & Adegbola, D. (2018)	To examine the impact of short and long term management accounting information system on effective business decisions of quoted fast moving consumers goods manufacturing firms in Nigeria.	Descriptive survey/regression analysis.	Management accounting information system has significant impact on effective business decision in FMCG manufacturing companies in Nigeria.	FMCG manufacturers should pay more attention to management accounting information system to equip managers with information required for decision making.
Al-Mawali, H. (2013).	To investigate the relationship between management accounting information system usage and performance of manufacturing companies listed in Jordan	Survey/two-step hierarchical regression.	Management accounting information system has positive effect on organizational performance.	None
Maziriri, E.T. & Mapuranga, M. (2017)	To examine the impact of management accounting practices on the business performance of small and medium enterprises (SMEs) within the Gauteng Province of South Africa.	Survey (simple random sampling technique adopted)/regression and multiple regression analysis	Management accounting practices positively influence the business performance of SMEs.	None

Omiuno, O.G. (2015).	To investigate the relationship between management accounting and information system and organizational performance in Nigeria. No	Survey (convenient sampling technique was adopted)/Spearman rank correlation and binary logistics regression analysis.	The study found that organisations in Nigeria have low or poor culture towards the deployment and use of management accounting and information systems; and that no significant relationship exist between management accounting systems and organizational performance.	Organisations in Nigeria should deploy and use management accounting (and information) system to enhance their business performance and to remain globally competitive.

METHODOLOGY

Research Design

This study used primary data to investigate the relationship between management accounting information and corporate performance; hence, the cross-sectional survey design was adopted. Cross-sectional survey design enables a researcher to do observations at one or more points in time without any attempt to manipulate or control the sample subjects.

Population of the Study

The population of this study was made up of the thirty-two (32) manufacturing companies in Rivers State registered with the Rivers/Bayelsa branch of the Manufacturers Association of Nigeria (MAN).

Sample Size Determination and Sampling Procedure

Since the population of this study was not large, a census of the entire population was done. Thus, the sample size for this study was thirty-two (32). In terms of level of analysis, the study adopted purposive sampling technique to select 96 respondents from the target manufacturing companies for the purpose of questionnaire administration. Purposive sampling was used since it afforded the researcher the opportunity to select respondents who could provide technical information pertaining to the subject matters under study.

Methods of Data Collection and Analysis

Data required for this study were collected primarily through questionnaire administration. Three copies of the questionnaire designed for the study were administered on the cost accountant, chief accountant and operations manager of each of the manufacturing companies. In all, ninety-six (96) copies of questionnaire were administered on the target respondents. Data analysis was done using linear regression and correlation statistics with the aid of the Statistical Package for Social Science research (SPSS), version 20. To determine the influence of management accounting information on corporate performance of manufacturing companies in Rivers State, the following hypotheses were formulated:

H_{O1}: Budgeting and budgetary controls do not significantly influence net profit of manufacturing companies in Rivers State.

H_{O2}: Standard costing does not significantly influence net profit of manufacturing companies' in Rivers State.

H_{O3}: Financial planning does not significantly influence net profit of manufacturing companies in Rivers State.

Model Specification

As pointed out earlier, this study used the linear regression and correlation statistics to investigate the relationship between management accounting information and corporate performance of manufacturing companies in Rivers State. The model for this study is of the following form:

$$NP = \beta_0 + \beta_1 BBC + \beta_2 SC + \beta_3 FP + \beta_4 FS + \varepsilon \quad \text{……………………………………} \quad (1)$$

Where:

NP = Net Profit

β_0 = Intercept

β_1, β_2, β_3, β_4 = Regression coefficients of the independent and mediating variables.

BBC = Budgeting and Budgetary Controls

SC = Standard Costing

FP = Financial Planning

FS = Firm Size

ε = Error Term

DATA PRESENTATION AND ANALYSIS

Data Presentation

The data collected for this study are presented in this section using descriptive statistics (means and standard deviations). Weights were assigned to the questionnaire responses obtained based on a four-point Likert Scale of the form strongly agree (4), agree (3), disagree (2), and strongly disagree (1). The expected mean of the responses is two and half (2.5) obtained by dividing the sum of the weights of the response options by the total number (i.e. 4+3+2+1÷4). The actual mean of each response was compared with the expected mean and a decision made on that basis.

Descriptive Statistics for Management Accounting Information

Table 2 below shows the results obtained in respect of the proxies for management accounting information. Statements were made in the questionnaire to assess the extent to which management accounting is practiced in the manufacturing companies surveyed. The mean obtained for most of the items is above the expected (average) mean of 2.5 (on a four-point Likert Scale), indicating that the manufacturing firms surveyed (to a large extent) utilise management accounting information with a view to enhance corporate performance. The overall mean for management accounting information is 3.11726 (i.e. sum of the means for the 3 proxies for management accounting information divided by 3).

Table 2: Descriptive Statistics for Management Accounting Information

Proxies for Management Accounting Information	N	Minimum	Maximum	Mean	Std. Deviation
BUDGETING AND BUDGETARY CONTROL	65	2.67	3.67	3.1513	.21993
STANDARD COSTING	65	2.50	3.67	3.1359	.20811
FINANCIAL PLANNING	65	2.60	3.80	3.0646	.27182
Valid N (listwise)	65				

Descriptive Statistics for Corporate Performance

Table 3 shows the results obtained in respect of net profit (the proxy for corporate performance). The mean of 3.5769 is greater than the expected mean of 2.5 (on a four-point Likert Scale). This means that almost all the respondents were of the opinion that the manufacturing companies surveyed performed well in terms of the profit generated.

Table 3: Descriptive Statistics for Corporate Performance

Proxy for Corporate Performance	N	Minimum	Maximum	Mean	Std. Deviation
NET PROFIT	65	3.00	4.00	3.5769	.25358
Valid N (listwise)	65				

Test of Hypotheses

This study used linear regression and correlation statistics to test the hypotheses stated earlier. The test was done with the aid of the Statistical Package for Social Sciences (SPSS, version 20) to determine the relationship, if any, between management accounting information and corporate performance of manufacturing companies in Rivers State. While regression analysis is used to estimate the relationship between variables, the coefficient of correlation measures the strength of the relationship or going togetherness of variables.

Regression Analysis of Budgeting and Budgetary Controls and Net Profit

H_{O1}: Budgeting and budgetary controls do not significantly influence net profit of manufacturing companies in Rivers State.

Table 4 below shows the outcome of the test.

Table 4: Regression Output of Budgeting and Budgetary Controls and Net Profit.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.103[a]	.011	-.005	.25422

a. Predictors: (Constant), BUDGETING ANDBUDGETARY CONTROL

Table 4 indicates that a positive linear relationship exists between budgeting and budgetary control and net profit; though the relationship between the two variables is very weak given that the value of the coefficient of correlation (R) is 10.3%. The model also shows that budgeting and budgetary controls only influences net profit by 1.1% while other variables account for 98.9% of the net profit of manufacturing companies in Rivers State. This result is not surprising as the performance of a company (measured in terms of net profit) does not depend significantly on its budgeting and budgetary control measures but on numerous factors such as selling price, proper management of expenses, cost reduction and control strategies, research and development programmes, capital structure, financial and operating leverage, raw material purchase system, inventory levels as well as credit policy. Thus, the model supports H_{O1} which states that budgeting and budgetary controls do not significantly influence net profit of manufacturing companies in Rivers State; hence, H_{O1} is accepted.

Regression Analysis of Standard Costing and Net Profit

H_{O2}: Standard costing does not significantly influence net profit of manufacturing companies' in Rivers State.

Table 5 below shows the outcome of the test.

Table 5: Regression Output of Standard Costing and Net Profit.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.009[a]	.000	-.016	.25558

a. Predictors: (Constant), STANDARD COSTING

Table 5 indicates that a positive linear relationship exists between standard costing and net profit; however, the relationship between the two variables is super weak given that the value of the coefficient of correlation (R) is less than 1%. The model also shows that standard costing does not account for changes in net profit (the coefficient of determination of 0.000 confirms this). Thus, the model supports H_{O2} which states that standard costing does not significantly influence net profit of manufacturing companies in Rivers State; hence, H_{O2} is accepted.

Regression Analysis of Financial Planning and Net Profit

H_{O3}: Financial Planning does not significantly influence net profit of manufacturing companies in Rivers State.

Table 6 below shows the outcome of the test.

Table 6: Financial Planning and Net Profit.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311[a]	.097	.083	.24289

a. Predictors: (Constant), FINANCIAL PLANNING

A positive linear relationship exists between financial planning and net profit as shown in Table 6. The coefficient of correlation (R) of 31.1% reveals that a slightly weak relationship exists between the two variables. Compared to the other two measures of management accounting information, financial planning (as the results suggest) appear to have more influence on net profit (as a measure of corporate performance). The model shows that financial planning influences net profit by 9.7% while other variables account for 90.3% of the net profit of manufacturing companies in Rivers State. Thus, the model supports H_{O3} which states that financial planning does not significantly influence net profit of manufacturing companies in Rivers State; hence, H_{O3} is accepted.

FINDINGS

This study investigated the relationship between management accounting information and corporate performance of manufacturing companies in Rivers State, Nigeria. Based on the data presented and analysed in the previous sections, a number of findings emerged. The results presented in table 1 indicates that the manufacturing companies surveyed prepare budgets and have budgetary control measures, develop standard costs and do financial planning as a basis for the generation of management accounting information and performance enhancement. The overall mean (3.11726) obtained for the measures of management accounting information is significantly above the expected mean of 2.5 on a four-point Likert Scale. Almost all the manufacturing companies surveyed prepare budgets annually and have a budget committee. The findings also indicate that a majority of the manufacturing companies surveyed have policies and standards for raw materials purchase and management, labour utilization, and manufacturing overhead absorption. Evidence obtained through the survey instrument further indicates that manufacturing companies in Rivers State prepare short term, medium term and long term plans.

This study used net profit as proxy for corporate performance. An overall mean of 3.5769 as shown in table 3 was obtained as opposed to the expected mean of 2.5. The implication of this result is that the manufacturing companies surveyed performed well in financial terms. Thus, the manufacturing companies investigated in the course of the study, as confirmed by the respondents, have had stable profits over the past five years.

In terms of the relationship between the various measures of management accounting information and the corresponding measure of corporate performance, the study found that a positive linear relationship exists between management accounting information and corporate performance. However, the relationship between the two variables was found to be very weak; though it can be observed from table 6 that financial planning has a stronger correlation with net profit than the other two proxies of management accounting information. The results of the study also indicate that management accounting information has very marginal influence on corporate performance.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study has revealed that a positive linear relationship exists between management accounting information and corporate performance, confirming the importance of management accounting information to manufacturing companies. However, there is a very weak correlation between management accounting information and corporate performance (measured in terms of net profit) of manufacturing companies in Rivers State, Nigeria, implying that the performance of a manufacturing company does not substantially depend on management accounting information.

Recommendations

The following recommendations are advanced based on the findings and conclusion of this study:

1. Management of manufacturing companies should continue to demand management accounting information so as to sustain the positive relationship that has been identified to exist between management accounting information and corporate performance.

2. The management accounting information system of manufacturing companies should be revamped to ensure timeliness, accuracy and completeness of management accounting information made available to management for decision making.

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APPENDICES

Appendix 1: Manufacturing Companies in Rivers State

S/No.	Names of Companies and Addresses	Product Manufactured
1	Air Liquide Nigeria Plc Plot 108, Trans Amadi Layout Port Harcourt	Industrial and medical gases and welding equipment.
2	Almarine Limited 28, Kolokuma street Borokiri Port Harcourt	Outboard engine Boats
3	Crocodile Matchets Nig, Ltd Plot 29, Trans Amadi layout Port Harcourt	Matchets
4	Eastern Bulkcem co. Ltd Rumuolumeni, Port Harcourt	Eagle cement
5	Eastern Enamelware Factory Ltd Plot 29, Trans Amadi Layout Port Harcourt	Household cooking utensils
6	Rivers vegetable Oil Co. Ltd Plot 80, Trans Amadi Layout Port Harcourt	Vegetable edible oil
7	General Agro Ind. Limited Plot 78/79, Trans Amadi Layout Port Harcourt	Edible vegetable oil and palm kernel pellets
8	First Aluminum Nig. Ltd Plot 19-21, Trans Amadi Layout Port Harcourt	Aluminum coils, sheets & circle collapsible
9	Nigeria Bottling Co. Plc Plot 126 , Trans Amadi layout Port Harcourt	Coca-cola, krest, Bitter lemon, sprite & fanta
10	Nigerian Engineering Work Ltd Trans Amadi Layout Port Harcourt	Steel structure and pipes, pressure vessels, filling cabinets, cupboards, wardrobe, chairs and desk library shelving, storage shelving, industrial lockers and Fabrication.
11	PH Flour Mills limited 8A, Industry Road Port Harcourt	Flour and maizelina, semolina, bran
12	QR Manufacturing and trading limited Plot 75Trans Amadi Layout Port Harcourt	Motor vehicle radiators
13	Sun Flower Manufacturing Company Ltd Plot 70, Trans Amadi Layout Port Harcourt	Plastic bags, containers and household utensils

14	Shower Limited 17, Ohaeto Street, D-line Port Harcourt	Safety and related uniforms & others
15	Polo Packaging Ind. Ltd Plot 84 Trans Amadi Layout Port Harcourt	Polopropylene woven bags & packaging materials
16	Nikko Industries Nig. Ltd Choba, Port Harcourt.	Nylon Fishnets, Auto Trawl Net
17	Galba Limited Plot 311, Trans Amadi layout Port Harcourt	Refurbished Flat 682 T3-N3 truck, Trailer axles flat 682 T3-N3 Engine refurbishing of Diesel & Gas, Turbine engine, power plant & truck spares.
18	Oil &Industrial Services Ltd 9A, Trans Amadi layout Port Harcourt	Gears, shafts, bolts & nuts, Flanges, bushings
19	Crushed Rock Nig. Ltd PH/Aba Expressway Port Harcourt	Granite block & Aggregates
20	Danelec Limited Plot 278, Trans Amadi Layout Port Harcourt	Electrical/ Electronic Regulators
21	Dangote Bail Ltd Onne Port Harcourt	Cement
22	Keedak Nig. Ltd Plot 18, Trans Amadi Layout Port Harcourt	Specialty chemical & water treatment application
23	West African Glass Ind. Plot 134, Trans Amadi Layout Port Harcourt	Hollow Glass containers
24	Boskel Nigeria Limited PH/Aba Expressway Port Harcourt	Smokeless Flares for the oil 7 glass industry
255	Eastern Wrought Iron Limited Plot 47, Trans Amadi layout Port Harcourt	Bunk beds, wrought iron furniture, hospital & school furniture, star foam, industry and domestic tanks
26	Dufil prima Foods Ltd. Plot 29, Trans Amadi layout Port Harcourt	Indomie Instant Noodles brands
27	Far East Paint Lustre Ind. Ltd Plot 170/171, Trans Amadi Layout Port Harcourt	Paints & painting materials, ink, polish colouring & shading, mixture dyes, pigments, varnishes Resins
28	Hoison Energy & Resources Serv. Ltd. Trans Amadi Layout Port Harcourt	High Density polyproethylene plastics & high density polypylene waste bags

29	Chief Ellah & Sons Nig. Ltd 13 Forces Avenue Port Harcourt	Fish & animal products
30	Best Aluminum Mfg Co. Ltd 85, Aba Road Port Harcourt	Aluminum roofing sheets & cooking utensils
31	Eleme petrochemicals company Ltd Eleme, Port Harcourt	Polypropylene, polyprothylene
32	Delta plastic Ltd Industrial complex, Apa Ogwu Road, off R.D road, Rumuodara, Port Harcourt	Poly bags, Bopp brand wrappers, pure water films, shopping bags, pet bottles, disposals, plates

Source: Manufacturers Association of Nigeria, Rivers/Bayelsa Branch.

APPENDIX 2: FURTHER REGRESSION RESULTS

Appendix 2a: ANOVA Result for Budgeting and Budgetary Control and Net Profit.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.044	1	.044	.679	.413[b]
	Residual	4.071	63	.065		
	Total	4.115	64			

a. Dependent Variable: NET PROFIT
b. Predictors: (Constant), BUDGETING AND BUDGETARY CONTROL

Appendix 2b: ANOVA Result for Standard Costing and Net Profit.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.005	.946[b]
	Residual	4.115	63	.065		
	Total	4.115	64			

a. Dependent Variable: NET PROFIT
b. Predictors: (Constant), STANDARD COSTING

Appendix 2c: ANOVA Result for Financial Planning and Net Profit.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.399	1	.399	6.758	.012[b]
	Residual	3.717	63	.059		
	Total	4.115	64			

a. Dependent Variable: NET PROFIT
b. Predictors: (Constant), FINANCIAL PLANNING