



Transaction Processing System & Inventory Management Method of Listed Consumers Goods Firms in Nigeria: An empirical Analysis

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Abstract

The study investigated the relationship between Transaction Processing System & Inventory Management Method of Listed Consumers Goods Firms in Nigeria within the period of 2010 -2019. Nomothetic and idiographic Philosophy was adopted while a cross-sectional survey was employed. Primary data was used. The population of the study was thirteen (13) companies quoted in Nigerian Exchange as of September 2020 in the industrial goods manufacturing sub sector. The unit population was the staff from departments such as Finance and Accounts, Procurements, Operations, and Information and communication Technology (ICT) departments, focusing on top management, middle management and functional management levels. Using purposive sampling technique seven (7) of the quoted companies were chosen for the study. 84 copies of questionnaire were used for data gathering. Descriptive statistics and Spearman's Rank Order Correlation Coefficient, statistics was used for data analysis. The result of the study shows that Transaction Processing systems has a very strong, positive and significant relationship with inventory management method of quoted industrial goods manufacturing companies in Nigeria. Also Transaction Processing system (TPS) and Inventory management method (IMM) has a high rank in the ranking order. The study concluded that Transaction Processing System as part of information & communication strongly relates with the inventory management method used as part of management accounting practices in listed companies in Nigeria. The study recommends among others that manufacturing companies should be encouraged to go fully computerized thereby changing from the traditional management accounting systems to the contemporary systems, this way they would be able to compete with other businesses globally given the trend in globalisation and computerization of operations in this contemporary times.

Keywords: Industrial Goods Manufacturing Companies, Inventory Management Method, Nigeria Transaction Processing System

1. INTRODUCTION

The adoption of modern management accounting practices enables the management to avoid unnecessary cost and meet the profit target of the organization (Oyerogba, 2015) as a result, it is believed that cost management strategies that focus on reduction of production overhead and administrative overhead embarked upon by the manufacturing organizations that could lead to meeting their profit maximization and wealth creation objectives will be the most adopted one. Inventory Management Method, a form of management accounting practice in organizations is one of such cost reduction strategies. In addition, there are many kinds of management accounting systems amongst which are inventory management system, cost accounting system, price optimization system and job costing system all with various accounting objectives, elements, and functions and the accounting systems' basic elements create the standardized context as to the aim for the data that is analysed, identified, and communicated (Edmonds & Olds, 2013).

Inventory management refers to the method of controlling and overseeing the ordering, use, and storage of components which the company applies in the production of the goods it sells. Also, it is the practice of controlling and overseeing of quantities of the finished goods for sale. Inventory managing system combines the application of barcode scanners, desktop software, mobile devices, and barcode printers to streamline the inventory management such as consumables, goods, stock, and supplies (Drury, 2015). Also, it is the practice of controlling and overseeing of quantities of the finished goods for sale. The objective of inventory management is to accurately understand present inventory levels and minimize overstock and understock situations. Through efficient tracking of quantities across the stocking location, managers will have insight and be capable of making sufficient inventory decisions. The inventory of a business is one of its key assets and accounts of the investment which is tied up to the products sells (Research Prospects, 2018).

Thus the use of ICT in management of inventory and the likes in recent times have been attracting the attention of researchers and industry managers. Ogungbade et al. (2017) argued that with the advent of digital technologies, a variety of issues relating to pricing strategies, cost management and control mechanisms are evident as there are alterations in management accounting systems, structures, thinking, and practices. It is argued that these changes may affect the choice of management accounting practice (MAP) in an organization and may also result in the need for the firm to reconsider its existing organizational design and strategies to fit with the changing environment (Mat & Smith, 2014). These changes in business environments have been argued as reasons why change in management accounting is inevitable (Yapa, & Dellaportas, 2014; Ogundbade et al.,2017).

There are different types of Information systems used for accounting management and decision management and applied and used by various tiers of management (Top, middle, tactical and functional levels). These are Management information system (MIS), Decision Support System (DSS), and Transaction Processing System (TPS), Office Automation System (OAS), Expert Support Systems (ESS), and Personal and Work Group Information Systems (WGSS) (Gabriel, 2012; Ada & Ghafazardah, 2015). Transaction processing systems (TPS) therefore are systems that process the company's business transactions and thus support the operations of the company. A Transaction process system records a non-inquiry transaction itself, as well as all of its effects, in the database and produces documents relating to the transaction. Transaction process system are necessary to conduct business in almost any organization today.

Transaction process systems bring data into the organizational databases, these systems are also a foundation on which management-oriented information systems rest (UK Essays, 2018). Researchers in recent time have shown that organisation in Nigeria have low and poor culture towards the deployment and use of management accounting and information systems and there have been clarion calls that organizations in Nigeria should deploy and use management accounting and information system towards enhancing their business performance and making it globally competitive especially in this competitive environment (Ogungbade & Oyerogba, 2020; Omuinu, 2015). Earlier studies have averred that new technology would change management accounting system design and hence the need for managers of firms to prepare for it (Haldma & Laats, 2002; Matt, 2010; Ajibolade, 2013). Haldma and Lääts (2002) argue that new technology will lead to a change in cost structure. This is made possible because once the manufacturing technology becomes more advance, the management accounting practices also becomes more complex and sophisticated to cope precisely with the manufacturing process.

That of Ejike and Nweze (2019), investigated the effects of management accounting practices on financial performance of manufacturing companies in Nigeria, and indicated that information for decision making practices is the most highly used management accounting practice amongst the manufacturing companies in Nigeria, followed by strategic analysis, budgeting, performance evaluation, costing, size and leverage respectively, hence the need for the creation and enhancement of awareness among firms of the importance of information for decision making practices as this is the most highly used management accounting practice amongst the manufacturing companies in Nigeria. Gnawali (2017) study focused on the effect of management accounting systems on organizational performance in Nepalese commercial banks while Taiwo (2016) study focused on the impact of information & communication technology on accounting systems and organizational performance and documented a significant positive relationship between Information and Communication Technology system and accounting system and a significant positive relationship between Information and Communication Technology and organizational performance.

While these studies showed that Management accounting practices has a significant relationship with performance, however they failed to look at the Transaction Processing system in particular in enhancing the application of management accounting practices in terms of inventory management system that would lead to enhanced performance, hence creating a research gap especially given the evolution and global acceptability and use of Information and Communication Technology in modern business practice.

Conceptual Framework

In this study there are two variables that are identified. They are Transaction Processing System (TPS) which serves as the independent variable and Inventory Management Method (IMM) serving as the dependent variable. The researcher used the diagram in figure 1.1 to illustrate the interaction of variables. It also shows the dimension (and their sub indicators) and the measure

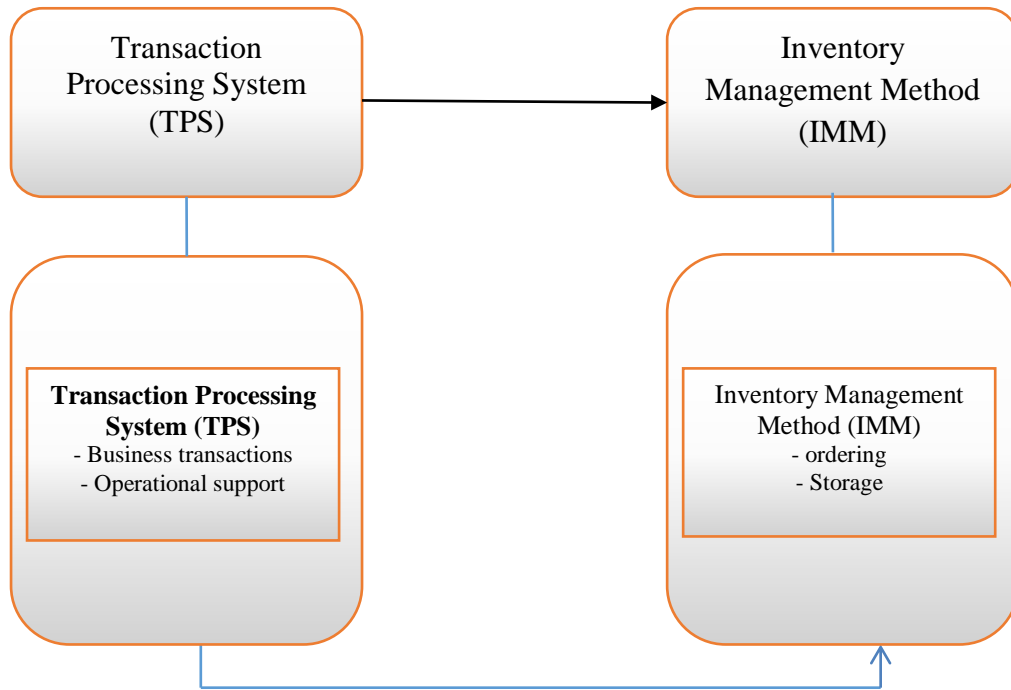


Figure 1.1: Conceptual Framework
Source: (Ogunbade et al., 2017; Ogunbade & Oyerogba, 2020)

Objectives of the Study

Determine the relationship between Transaction Processing System (TPS) and Inventory Management Method (IMM) of quoted industrial goods manufacturing companies in Nigeria.

Research Question

Based on the specific objective, the following Research question was raised to include:

How does Transaction Processing System (TPS) relate to Inventory Management Method (IMM) of quoted industrial goods manufacturing companies in Nigeria?

Research Hypotheses

HO₁: There is no significant relationship between Transaction Processing System (TPS) and Inventory Management Method (IMM) of quoted industrial goods manufacturing companies in Nigeria

2. LITERATURE REVIEW

Transaction Processing System (TPS)

Transaction process system would not be completely understood without an understanding of what a transaction is. A transaction is an elementary activity conducted during business operations. Transaction processing systems (TPS) therefore are systems that process the company's business transactions and thus support the operations of the company. A Transaction process system records a non-inquiry transaction itself, as well as all of its effects, in the database and produces documents relating to the transaction. Transaction process system are necessary to conduct business in almost any organization today. Transaction process systems bring data into the organizational databases, these systems are also a foundation on which management-oriented information systems rest (UK Essays, 2018).

Furthermore, the transaction process is a set of information that may be order, payment, scanned information etc., through computer and need to be updated in a database and database must sent conformation at same time for the request.

Transaction process systems contain two types of processes these are Batch Transaction Process and Real Time Transaction Process. Batch Transaction Process The batch transaction means it collects the data and stored in Database and does not respond immediately during process. The best example of Batch Transaction Process is mobile invoices, Bank statements, checks etc.

The Real Time Transaction Process This means it collects the data and responds immediately for the process and saves the records in database. The best example of Real Time Transaction Process is Withdrawal money, Deposit money, and Scanned payment results in retail stores. Any business that may be online or offline runs under these two processes works. In addition, Transaction processing may be accomplished in one of two modes i) On-line mode; ii) Batch mode (UK Essays, 2018).

Characteristics of on-line transaction processing

1. Each transaction is completely processed immediately upon entry.
2. More costly than batch processing
3. Database is always up to date
4. Require the use of fast secondary storage such as magnetic disks

Characteristics of batch transaction processing

- 1) Relies on accumulating transaction data over a period of time and then processing the entire batch at once.
- 2) Batch processing is usually cyclic daily, weekly, or monthly run cycle is established depending on the nature of the transactions
- 3) Cheaper than on-line processing
- 4) Easier to control than on-line processing
- 5) Database is constantly out of date
- 6) Batch processing is now being captured using disk files

Transaction Processing Subsystems in a Firm

Overall transaction processing, also known as data processing, reflects the principal business activities of a firm. The principal transaction processing subsystems in a firm are those supporting in these areas 1) Sales, 2) Production, 3) Inventory, 4) Purchasing, 5) Shipping, 6) Receiving, 7) Accounts payable, 8) Billing, 9) Accounts receivable, 10) Payroll, 11) General ledger

Transaction Processing Activities

The processing of individual transactions, of course, depends to a degree on their nature. The general elements of transaction processing include

- 1) Data capture and validation
- 2) Transaction - dependent processing steps
- 3) Database maintenance

Date Capture Direct data entry is commonly employed through source data automation. Increasingly, transaction processing systems rely on electronic data interchange (EDI). By replacing paper documents with formatted transaction data sent over telecommunications networks, these systems provide for computer-to-computer communication without repeated data entry. Although used internally by some firms, electronic data interchange primarily serves the needs of intercompany communication.

Data Validation Typical validation tests include checking for missing data items, valid codes, and valid values. More extensive validation may entail authorization of the transaction based on the customers record and available inventory.

Processing Steps Dependent on the Transaction and on Processing Mode

Depending on the nature of the transaction and on whether the system operates in on-line or batch mode, the following processing steps may be performed:

- a) Classification the system classifies incoming transactions to select further processing steps.
- b) Sorting Transaction records are arranged in order of the value of the data item(s) that uniquely identifies each of them.
- c) Data Retrieval the purpose of an inquiry transaction is retrieval of data from the database. Other transactions may involve data retrieval as well.
- d) Calculation: the calculations required depend on the nature of the transaction.
- e) Summarization usually performed to obtain simple reports offered by Transaction Processing System, this step computes summaries across all or some of the transactions.

Database Maintenance After transactions other than inquiries, system files or databases must be updated. The data accumulated by Transaction processing systems thus serve as a source of detail for management-oriented components of information systems.

Outputs Provided by Transaction Processing Systems

The outputs provided by Transaction Processing Systems may be classified as

- a) Transaction documents
- b) Query responses
- c) Reports

Transaction Documents Many Transaction Processing Systems produce transaction documents, such as invoices, purchase orders, or payroll checks. These transaction documents produced by Transaction Processing Systems may be divided into two classes: 1) action documents and 2) information documents.

Action documents direct that an action take place. Turnaround documents initiate action and are returned after its completion to the requesting agency. They therefore also serve as input documents for another transaction.

Information documents confirm that a transaction has taken place or inform about one or several transactions. Transaction documents require manual handling and, in some cases, distribution of multiple copies. The process is costly and may lead to inconsistencies if one of the copies fails to reach its destination.

Query Responses and Reports Transaction Processing Systems offer certain querying and simple reporting capabilities, albeit much less elaborate than those of management reporting systems. Most queries produce a screenful of information. However, reports are also often produced because of inquiries. Unlike management reporting systems, Transaction Processing Systems typically provide a limited range of pre-planned reports. The content and format of such reports are programmed into the Transaction Processing Systems software and the reports are produced on schedule. The Transaction Processing Systems reports are often quite long.

The following report types are produced by Transaction Processing Systems

- 1) Transaction Logs - are listings of all transactions processed during a system run and include purchase order manifests or sales registers.
- 2) Error (Edit) Reports - error reports list transactions found to be in error during the processing. They identify the error and sometimes also list the corresponding master file or database records.
- 3) Detail Reports - detail reports are extracts from the database that lists records satisfying particular criteria.
- 4) Summary Reports - typical summary reports produced by TPSs include financial statements.

Inventory Management Method

Inventory management refers to the method of controlling and overseeing the ordering, use, and storage of components which the company applies in the production of the goods it sells. Also, it is the practice of controlling and overseeing of quantities of the finished goods for sale. According to Dury (2015), Inventory management refers to the method of controlling and overseeing the ordering, use, and storage of components which the corporation applies in the production of the goods it sells.

On the other hand, inventory managing system combines the application of barcode scanners, desktop software, mobile devices, and barcode printers to streamline the inventory management such as consumables, goods, stock, and supplies (Drury, 2015). Also, it is the practice of controlling and overseeing of quantities of the finished goods for sale. The objective of inventory management is to accurately understand present inventory levels and minimize overstock and understock situations. Through efficient tracking of quantities across the stocking location, managers will have insight and be capable of making sufficient inventory decisions. The inventory of a business is one of its key assets and accounts of the investment which is tied up to the products sells (Research Prospects, 2018).

Functions of Inventory Management system: The following constitutes to functions of the inventory management system creating purchase orders, receiving, relocating, adjusting, and disposing of inventory. Also, it makes sales orders, picking, packaging, and shipping of products (Drury, 2015). It performs cycle counts, and physical inventory counts, create, manage, scheduling and sharing reports plus printing barcode labels. Benefits of the inventory management system to an organization include improving the bottom line of the company, enhancing inventory accuracy, and improving company workflow, as well as provision of information for decision making to management (Research Prospects, 2018).

Relationship between Transaction Processing Systems (TPS) And Management accounting systems and practice

Karamatova (2017), argued that management accounting focuses on the decision-making aspects of the accounting. Accounting industry has been tremendously transformed in the past two decades due to the implementation of Enterprise

Resource Planning (ERP) systems. These systems integrate and unify an organisation's business functions and processes into one complex computer system. Previous research suggests that the ERP systems' main functionality primarily addresses the issues of financial accounting and much less the issues of management accounting. Kamaratova (2017) study explored the underlying factors behind the application of the Management Accounting Techniques through the ERP systems and to suggest a further development in the field. Five large Swedish companies were examined through the comparative case studies with semi-structured interviews. This study discovered that Management Accounting Techniques were mostly implemented through spreadsheets, Business information systems and custom built software, i.e. outside of the ERP systems. The main reasons were inflexibility and standard design of the ERP systems that did not fully suit the companies. Additionally, the customization of the ERP systems would be too costly when other tools, such as Business information systems or spreadsheets, provided better functionality to a better price.

The conclusion of the study was that it is impossible to build a universal ERP system that would suit all kind of companies; however, ERP systems can serve as a common base and a transaction engine for the Management accounting. ERP systems can provide a data structure for the analysis parameters crucial to Management accounting, such as profit centre, cost centre, unit, and other dimensionality aspects. Spreadsheets and Business information systems win the Management accounting battle by providing the flexibility, user-friendliness and the acceptable price, required by the users. Therefore, ERP systems must provide good integration possibilities with other software. One can further speculate if ERP system providers choose not to deliver flexible and visually appealing products, since they benefit from the income that the customer education and the customization of an ERP system implies.

Al-tarawneh (2015) study focused on to determine the impact of using information system in improving and managing the decision-making process of the Employees Affairs Department of Al-Balqa Applied University at Al-Kara. The study showed that where there is the use of manual instead of computerised systems, this system can result to loss of information because they are paper document. There is no integrity, no security, and no adequate and precise information. However, this affects the decision-makers as well as the decision-making process. Hence transaction processing systems affects the way records and accounts are kept and calls for its adoption and use to make decision making process easier.

Gulvist (2013), study contributes to contemporary research on changes in management accounting (MA) practices by examining the effect of changes in data quality, information quality and management accountants' tasks on accounting efficiency and effectiveness, and indirectly on management accounting change after the implementation of an Enterprise Resource Planning (ERP) system. Consistent with previous studies, time since ERP adoption appears to be a significant determinant of Management Accounting change, but the findings of the study also suggested that late adopters, that is, firms adopting an Enterprise Resources Planning system more recently, perceive greater changes in Management Accounting than early adopters. Further, the results indicate that global ERP implementations and use of business intelligence tools significantly relate to changes in Management Accounting practices.

Spaiths and Kostandinidous (2002), study argued that the advent of the Information & communication technology-led era and the increased competition has forced companies to react to the new changes to remain competitive. Enterprise Resource Planning (ERP) systems offer distinct advantages in this new business environment as they lower operating costs, reduce cycle times and (arguably) increase customer satisfaction. On the other hand, ERP systems increase business risks compared to the conventional accounting information (AI) systems. Such risks mainly stem from ERP's core advantage i.e., the interdependencies involved. This paper examined the underlying reasons why companies choose to convert from conventional AI systems to ERP systems, the changes brought in and the problems encountered in doing so. The evidence is gathered from managers in organizations adopting ERP systems via semi-structured interviews. The aim is not only to understand the benefits and costs involved in adopting ERP systems compared to AI systems but also, to establish the best way forward in future ERP applications. The study concluded that the advent of information & communication technology and its use by companies no doubted impacted on way accounting information is generated and managed for decision making.

Theoretical Framework

System Approach theory

The evolution of System approach theory can be traced to General System Theory advanced by a Biologist – Ludwig Von Bertalanffy as a response to the increasing fragmentation and duplication of scientific and technological research and decision making in the first half of the 20th century (Laszlo & Krippner, 1998). System theory was propounded by von Bertalanffy in 1937 when he first presented his idea of a 'General System Theory' in a philosophy seminar at the University of Chicago. It became an interdisciplinary theory in 1950s when Kenneth Boulding, an economist, Anatol Rapoport, a mathematician and Ralph Gerard a physiologist came together in 1954 at the Palo Alto Centre for Advanced Study in the Behavioural Sciences (Laszlo & Krippner, 1998).

Laszlo and Krippner (1998) defined a system as a group of interacting components that conserves some identifiable set of relations with the sum of the components plus their relations (i.e., the system itself) conserving some identifiable set of relations to other entities (including other systems). Ackoff (1981) posits that a system is a set of two or more interrelated elements with the following properties 1. Each element has an effect on the functioning of the whole. 2. Each element is affected by at least one other element in the system. 3. All possible subgroups of elements also have the first two properties. According to the system approach theory, all parts of a system are related to each other and any change in one part of a system may require the consideration of appropriate change(s) in other parts of the organisation, otherwise, the system may not work properly (Ogungbade et al., 2017).

Review of Empirical Literature

Abdarahman et al. (2020) study investigated the use and benefit of management accounting practices in Libyan oil companies. The objective of the study was to describe the use and benefit of Traditional management accounting practices (TMAPs) and Current management accounting practices (CMAPs) in Libyan oil companies. Survey design was adopted. Data were collected by distributing 210 mailed questionnaires to senior financial staff, such as financial managers, heads of cost department, financial accountants, and department of management accounting employees, managerial accountants, and Auditors. IFAC-based model was used in analysing evolution stages in Libyan management accounting practices. The study result indicated that Libyan oil companies use CMAPs more than TMAPs, the latter being commonly used in Libyan manufacturing companies. Furthermore, CMAPs are more beneficial than TMAPs.

Vasquez and Naramdo –Gil (2020) study investigated management accounting systems, top management teams, and sustainable knowledge acquisition and their effects on performance. The objectives of the study were to analyse how top management team composition facilitates the acquisition of new knowledge; also analyses the mediating effect of the interactive use of management accounting systems (MASs) and their impact on sustainable firm performance. Survey design was adopted while study was domiciled in the Republic of Ecuador. Partial least square regression was used for data analysis. The study result indicated that a positive effect for the interactive use of management accounting systems on sustainable knowledge-acquisition processes. Results also showed that knowledge acquisition increased firm performance through an interactive use of MASs.

Bransah (2019) within the Ghanaian context investigated the effects of management accounting practices on financial performance of manufacturing companies in Ghana, using management accounting practices. The general objective of the study was to investigate the effects of management accounting practices on financial performance of manufacturing companies in Ghana. This study adopted a descriptive survey design. The target population for the study was the 455 manufacturing companies in Ghana. Stratified random sampling method was applied to come up with the sample size, since the population in different manufacturing firms was considered heterogeneous, implying that a simple random sample is unrepresentative. The study therefore involved 46 manufacturing companies. The study collected primary data from the respondents. The data collected was both quantitative and qualitative. Analysis was done using Statistical Package for Social Sciences (SPSS), allowing the researcher to present the information in form of tables and figures. The study concluded that information for decision making practices is the most universally used management accounting practice amongst the manufacturing companies in Ghana followed by strategic analysis, budgeting, performance evaluation, costing, size and leverage respectively. The study further concluded that the most important elements of management accounting practices amongst the manufacturing companies in Ghana are the management accounting function identifies key factors that influence performance and risky areas that require improvements and return on equity, ROE (Net income / Average Equity) has increased as a result of application of management accounting practices. This study recommended the creation and enhancement of awareness among firms of the importance of Information for decision making practices as this is the most universally used management accounting practice amongst the manufacturing companies in Ghana.

Ben- Caleb et al. (2019) study investigated cost reduction strategies and the growth of selected manufacturing companies in Nigeria. The objective of the study was to examine the relationship between cost reduction strategies and the growth of manufacturing companies in Nigeria using data from annual reports of 40 manufacturing companies quoted on the Nigeria Stock Exchange within the period of 2012-2016. 40 manufacturing companies were sampled purposively for this study. The study took changes in material cost, changes in labour cost and changes in administrative overhead as variables for cost reduction strategies while changes in turnover as the variable for Growth. Correlation analysis was conducted to determine the association between cost reduction strategies and growth while, regression analysis was used to determine the impact of cost reduction strategies on the growth of manufacturing companies. Results showed a positive significant relationship between cost reduction strategies and growth of manufacturing companies in Nigeria. The study recommended that manufacturing companies should implement value analysis to reduce material costs and the implementation of cost reduction strategies in all manufacturing companies in Nigeria.

Mamidu and Akinola (2019) in their study within the Nigerian context investigated cost management and corporate performance in quoted industrial goods manufacturing companies in Nigeria. The study sought to examine some best

practices in the management of cost management and their influence on performance of manufacturing companies considering the unique attributes of the Nigerian economy. Secondary data source was explored in presenting the facts of the situation. The secondary data were obtained from annual reports and relevant literatures among other. Data were tested using the Ordinary Least Square Linear Regression model. From the financial reports of companies, information concerning direct material cost, direct labour cost and production overhead (independent variables) and operating profit (dependent variable) of listed companies in Nigeria were extracted. The result showed that Shareholders' Funds positively relate to profitability and significant at 5 percent and that the Total Asset also positively relate to profitability at 5 percent level of significance. This study showed that cost management in manufacturing companies have a significant impact on profits generated from Production Operations. The study concluded that an efficient cost Management has significant influence on profitability. The study then recommended that Company policy makers and transaction advisors should be keen on making cost management policies to be applied since they greatly impact on financial performance of the company.

3. METHODOLOGY

Nomothetic and idiographic Philosophy was adopted while a cross-sectional survey was employed. The population of the study was thirteen (13) companies quoted in Nigerian stock exchange as of September 2020 in the industrial goods manufacturing sub sector. The unit population was the staff from departments such as Finance and Accounts, Procurements, Operations, and Information and communication Technology (ICT) departments, focusing on top management, middle management and functional management levels. Using purposive sampling technique seven (7) of the quoted companies were chosen for the study. 84 copies of questionnaire were used for data gathering. Descriptive statistics and Spearman's Rank Order Correlation Coefficient, statistics was used for data analysis.

4. RESULTS AND ANALYSIS

Descriptive Analysis

Table_4.1: Descriptive Statistics for all variables combined

	N	Minimum	Maximum	Mean	Std.Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std.Error	Statistic	Std. Error
TPS	80	2.00	4.00	3.7417	.47133	-2.202	.269	5.101	.532
IMM	80	.00	4.00	3.5833	.82592	-2.696	.269	7.207	.532
Valid N (listwise)	80								

Source SPSS version 21 Output of data, 2021

From the descriptive result analysis as shown on the table 4.1 above, inventory management method (IMM) has the highest variation amongst the variables with a standard deviation value of 0.82592 while Transaction Processing System (TPS) is the least with a standard deviation value of 0.47133. Again with the all variables scoring a mean score greater than 3 also indicates that they are evenly distributed.

Bivariate Analysis and Test of Hypotheses

Test of Hypotheses

HO₁: There is no significant relationship between Transaction Processing System (TPS) and Inventory Management Method (IMM) of quoted industrial goods manufacturing companies in Nigeria

Model: IMM = f (TPS)(i)

Table_4.2: Spearman's Correlations result for Hypothesis one

			TPS	IMM
Spearman's rho	TPS	Correlation Coefficient	1.000	.930**
		Sig. (2-tailed)	.	.000
		N	80	80
	IMM	Correlation Coefficient	.930**	1.000
		Sig. (2-tailed)	.000	.
		N	80	80

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

Source: (SPSS output of Data, 2021)

From the table 4.2 above, the positive and very large value of rho (0.930**) indicates that there is a very strong rank correlation between transaction processing system and inventory management method of quoted industrial goods manufacturing companies in Nigeria, and correlation is significant at 0.01 level. Since the p – value (= 0.000) is less than the level of significance (alpha) (0.05), we therefore reject the null hypothesis and conclude that: there is a significant relationship between transaction processing system and inventory management method of quoted industrial goods manufacturing companies in Nigeria.

Discussion of Findings

Transaction processing system (TPS) and Management Accounting Practices (MAP)

Result indicated that transaction processing systems has a significant relationship with Management accounting practices measures of inventory management method, they should positive, very strong and significant relationships. The research hypothesis one states there is no significant relationship between transaction processing system and inventory management method of quoted industrial goods manufacturing company in Nigeria. Similarly, as evident in the statistical testing of hypothesis, a very strong and positive relationship was revealed to exist between TPS and inventory management method, and correlation is significant at 0.01 level, this is evident in the correlation (rho) value of 0.930** (93%). The null hypothesis six is therefore rejected and the alternative hypothesis accepted. This shows that the 93% of the changes of Management accounting practices in terms of inventory management is accounted for by TPS aspect of information & communication technology system in the quoted industrial goods manufacturing companies. The implication of these results is that when there is a deployment of Information system developed that enable the companies process business transactions and thus support the operations by keeping a record of a non-inquiry transaction itself, as well as all of its effects, in the database and produces documents relating to the transaction, it could to improvement towards costing, budgeting and inventory management in the companies. The findings here are in agreement with earlier works or (Karamtova, 2017; Al-Taranneh, 2015) whose study results indicated significant association between TPS and modern management accounting practices deployment. The study of Kamaratova (2017) explored the underlying factors behind the application of the Management Accounting Techniques through the ERP systems and to suggest a further development in the field. The study discovered that Management Accounting Techniques were mostly implemented through spreadsheets, Business information systems and custom built software, i.e. outside of the ERP systems. The conclusion of the study was that ERP systems can serve as a common base and a transaction engine for the Management accounting. ERP systems can provide a data structure for the analysis parameters crucial to Management accounting, such as profit centre, cost centre, unit, and other dimensionality aspects.

5. CONCLUSIONS AND RECOMMENDATIONS

The study concluded from its analysis that Transaction support systems has a very strong, positive and significant relationship with inventory management method of quoted industrial goods manufacturing companies in Nigeria. Also Transaction Processing system (TPS) and Inventory management method (IMM) has a high rank in the ranking order. The study therefore suggested the following recommendations:

1. Manufacturing companies should be encouraged to go fully computerized thereby changing from the traditional management accounting systems to the contemporary systems, this way they would be able to compete with other businesses globally given the trend in globalisation and computerization of operations in this contemporary times.
2. There should be training and retraining of the staff or employees to get them conversant with the new adaptation and in the use of computerized systems for operation. In addition, adequate awareness should be created for the said techniques and it should be incorporated in the company's policies so that potential and old staff would know about the systems and prepare towards its use and deployment.

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