International Journal of Advances in Engineering and Management (IJAEM)
Volume 6, Issue 03 Mar. 2024, pp: 279-294 www.ijaem.net ISSN: 2395-5252

Modern Managerial Accounting Techniques and Firms' Performance in Nigeria

Olayode Omorayewa Adelana
Accounting Department, Faculty of Management Sciences,
Ambrose Alli University,Ekpoma, Edo State, Nigeria

Date of Submission: 11-03-2024 Date of Acceptance: 21-03-2024

ABSTRACT
The triumph and failure of any business depends on the decision made by the management of the business. Such decisions could be strategic, tactical or operational. For businesses to make sound decisions that will enhance its performance, qualitative techniques are required to be employed by management and decision makers. The study therefor seeks to examine the impact of modern managerial accounting techniques on firms' performance in Nigeria. The study adopted structured questionnaire for data collection. Data obtained were Analyzed with the aid of Covariate (ANCOVA) technique method via Statistical Package for Social Sciences (SPSS Version 26) at 0.05(5%) level of significance.The findings of the study shown that modern managerial accounting techniques like Benchmarking, Activity based costing, Balance scorecard, activity based management and total quality management have significant relevant to firms' performance in Nigeria.The study recommended that: (i)Establishments should develop a mechanism to incorporate relevant feedback from the use of modern managerial techniques as a control. (ii) Organizations should develop and organize constant seminars and workshops to train and educate managers, employees (production) and accountant on matters pertaining modern managerial accounting techniques and management policies and procedures to enhance their skills and expertise in their practice as professionals. The study found that management accounting techniques had significant positive relationship with firm development indicators in both view and practice.

Keywords: Organizational, Decision Taken, Management Accounting and Techniques

I. INTRODUCTION

The role of small and medium enterprises (SMEs) in Nigeria cannot be quantified. It is a major deciding factor for economic growth and development. The wealth of nations and growth of economies depend largely on performances of SMEs' According to Abdullah and Rosli (2015), SMEs are essential elements of the economic growth of a nation, and serve as the bedrock of economic growth of the nation. It has been argued that government alone cannot provide employment opportunities for its citizens. Majority employment offers are generated through SMEs (Oladele, Alagbe&Ojo, 2023). SMEs promotes, innovate, foster entrepreneurship, generate employment, enhances national output, increase export and creating wealth that raise success for development of a country (Hilal&Gunapalan, 2020; Ateke&Nwiepe, 2017; Magembe, 2017; Ebitu, Glory & Alfred, 2016; European Investment Bank, 2011).

Managerial accounting can be described as a mechanism through which Management and employees are provided with relevant financial and nonfinancial information (Atkinson, Kaplan, Matsumara, & Young, 2012). Managerial accounting techniques serve as a guide for economic planning and decision making (Aroloye, 2017). For high productivity, efficient and effective performance that will sustain a nation economic growth, firms in Nigeria should adopt trending managerial accounting techniques for businesses practices (Zakaria, 2021). To compete adequately and remain in the complex and competitive business world today, trending managerial accounting techniques are considered very essential (Dahal, Bhattarai&Karki 2020).Trending managerial accounting techniques such as:; Balance scorecard, Benchmarking, Value chain costing among others are example of trending techniques that tare good for firms performance in Nigeria (Phomlaphatrachakom, 2020).

Statement of the Problem

The practice of small and medium enterprises (SMEs) is a major factor of sustaining economic growth and development of a given nation in the world. It has been argued that the wealth of nations and growth of economies is to a large extent depending on the performance of SMEs' (Abdullah &Rosli, 2015). It is obvious that government of developing countries like Nigeria find it difficult to meet with the demands of their subjects. For such countries to survive, SMEs activities must be given priority. The SMEs can only perform efficiently and effectively by adopting trending managerial accounting techniques in the practices of their businesses. It has also be argued by Researchers like: Angela (2015), Khurram, Sohail, Muhammed and Zahil (2014) and Peter (2014) that some firms in Nigeria are still using traditional managerial accounting techniques in the practices of their business despite the emerging of trending managerial accounting techniques that will keep their business on the right track. The implication of the above is that such firms will not be able to compete with others and the overall effects will be at the detriment of the society. The study is motivated to examine if trending managerial accounting techniques has significant relevant in the practice of businessin Nigeria. No known study has really investigatedwhy firms in Nigeria are reluctant to adopt trending managerial accounting techniques in Nigeria. Hence, the study seeks to examine the reason responsible for the reluctant of firms to adopt trending managerial accounting techniques in the operation of their business in Nigeria.

Arising from the statement of the problem are the following research questions:

i. Does trending managerial accounting techniques like Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management have any significant relevant onfirms' performance in Nigeria?
ii. Does trending managerial accounting techniques like Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management enhance the value of firms' performance in Nigeria?

Objectives of the Study

The overall aim of the study is to examine the effect of managerial accounting techniques on firms' performance in Nigeria. The Specific objectives are to:

i. examine if trendingmanagerial accounting techniques like:Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality managementhave significantrelevance on firms' performance in Nigeria.
ii. find out if trending managerial accounting techniques like:Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management enhance the value of firms' performance in Nigeria

Research Hypotheses

i. H_{01}:trending managerial accounting techniques like:Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management have no significant relevance on firms' performance in Nigeria
ii. H_{02}:trending managerial accounting techniques like: Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality managementdo not enhance the value of firms' performance in Nigeria.

Scope of the Study

The study is to examine the impact of managerial accounting techniques on firms' performance in Nigeria. The focus of the study is on trending managerial accounting techniques. The population of the study is two hundred (200) respondents ranging from Accountants, Auditors, Practitioners, auditors and scholars from various tertiary institutions in Ondo State, Nigeria.

Significance of the Study

The result of the study shall be significant to:

i. Practitioners: Practitioners will be guided on the need to alwaysadopt trending managerial accounting techniques in the practices of their business as this will enable them to compete adequately in the business world.
ii. Scholars: The scholars will understand the need to incorporate managerial accounting in the curriculum of all tertiary institutions in Nigeria.

II. LITERATURE REVIEW

Concept of Managerial Accounting Techniques

Activity based Costing (ABC)

According to Velmurugan (2012), “Activity based costing is a costing method that depicts performances in an organization and designates the cost of each activity to all products and services based on the actual consumption by each. The tool assigns more indirect costs (overhead) into direct costs compared to conventional costing” Chartered Institute of Management Accountants (CIMA) delineates ABC as a method of costing and the monitoring of operations that involves tracing resource consumption and costing final outputs. Resources are tie to activities, and operations to cost objects based on consumption approximates (Velmurugan, 2012),

Through ABC, a business can easily estimate the cost elements of entire products, activities and services that may inform a company's decision to show and obviate the products and services that are unprofitable and Identify and wipe out production or service procedure that are ineffective and apportion procedure constructs that lead to the same product at a good yield (Ardiansyah, Elizabeth & Wilson, 2017). ABC is a tool that is used for better understanding of product and customer cost and profitability based on the production processes. As such, ABC is used to aid strategic decisions (Ford &Gioia, 2000).

Activity-based management (**ABM**)

Activity-based management is a system of assessing and measuring operations that a business performs, using activity-based management costing to carry out a value chain analysis to ameliorate strategic and operational decisions in a business organization (Normah and Rokiah (2002). ABM focuses on managing activities to scale down costs and better customer value. ABM can be group into operational and strategic: Operational ABM is doing the right thing, using ABC information to improve efficiency while strategic is about doing the right things, using ABC information to determine which products to develop and the activities to be used. One merits of ABM is that it helps managers to understand product and customer profitability, the cost business procedure and how to improve (Kennedy & Bull, 2000).

Benchmarking

Benchmarking can be defined as a measurement of performance. This is done by comparing what is obtainable with targets. Benchmarking is the persistence striving in order to achieve the goal of an organization. That is, the comparing of the current performance with previously defined standards. Benchmarking is important in an organization as it enable the organization to know the flaws of performance and how to improve on it. Benchmarking uses a structured process to identify what is needed to replace, how best it can be replaced and the reason for such replacement. Through benchmarking an organization can view what is doing and compare it with what others are doing as bases for competition (Khoiriyah&Elvia, 2018).

Target Costing

The purpose of production is to obtained profit in order to maintain the business and maximize shareholders’ wealth. To actually achieve the above, at all level production the production company must avoid unnecessary cost. One of best ways to avoid such cost is having a target for a particular production, when this happened; we refer to it as target costing. This can be done by deducting an expected profit margin from a competitive market price. When a company did not exceed the cost it intends to incur on a particular product and still achieve profits at a particular selling price, it is a function of target costing. Target costing Target costing embraces the cost of planning, designing and packaging of a product (Peter, 2014).

Throughput Accounting

According to Eliyahu (2022) “throughput accounting is the conversion of company’s goods and services into sales in order to make money out of it. Throughput accounting is one of the modern techniques of management accounting that provide an alternative method to conventional technique. The focus of the technique is to recognize the restrictions that can hold production which eventually may lead to a delay in sales.

Throughput accounting is one of the major tools of management to address limitations and constraints in production in order to increase sales, revenue, and profits for a particular organization. The consideration of throughput accounting can be group into sales/revenue and variable cost of production. Variable costs of production vary with production. This may comprise cost of raw materials, freight and commission on sales.

Bottleneck in production can be dealt with through throughput accounting by employing the following: Identification; the best way of removing bottleneck is its identification in production. The first and foremost step in the removal of bottlenecks is the successful identification of the problem areas in the production. That is, management must identify first the factor that is creating problem among the factors. Exploitation;

Next to the first stage is to ensure that the problem area is considered for maximum usage. Such utilization must be done in a way that it will give highest possible productivity. Adjustment; the third step is to adjust for processes and resources in conformity with the problem identified. Non-constraint resources should put into work in line with the constraint at hand so as to avoid further wastages and bottlenecks. Elevation; when other processes have been adjusted with the bottleneck, management should consider elimination of the process that is faulty. Repetition; in case of the new capital expenditure or the amendment of an old problem, management should not be contented. The whole procedure has to be reconsidered again to ascertain if there is any new constraint.

Responsibility Accounting

In most cases, it is always good to assign and take responsibility. This will enable individual, group, units to have a focus and determine to achieve a specific objective. The establishment of accounting system according to the responsibility designated to levels of management through which information and reporting get to the management as feed-back is referred to as responsibility accounting. Under this accounting system, there is always a divisions or units within an organization under a define authority. The units or responsibility centers are evaluated individually for their performances (Kirti, 2021).

According to Kirti (2021), merits of responsibility accounting are:

- Easy identification: It depicts the performances of managers whether satisfactory or not
- Motivation; This implies that if a system of responsibility accounting is carry out accordingly, benefits are sure
- Adequate information: Up to date information is available for future cost and revenue
- Planning and decision making: Responsibility accounting is good for planning and decision making
- Delegation and control: The system of management is delegation. Success are achieved by accepting responsibility
- Training: Responsibility accounting helps to train management for the future

Life Cycle Costing

Generally, there are stages in life. The stages of human being can be summarized as conceptual, birth, growth, mature and death. Life cycle does not limit to humanity. It extended to products. The cost associated to a particular product right from its introduction to the market and its removal is called life circle costing. The costing comprises purchase costs, maintenance costs, operational costs, financing costs, depreciation costs, and end-of-life costs. Life cycle costing is beneficial to businesses as it gives a correct estimation of costs over the course of a product's life. This enable businesses to buy product that have a low price and dispose of the product when it is appreciated. Life cycle costing eases the decision-making process.

The purpose of life circle costing is to: Cost identification; Identification of product cost is achievable through life circle costing. Life cycle cost analysis provides light on whether profits can return the costs incurred at different stages of a product’s life cycle. Cost comparison; cost comparison is required of a business in order to make effective decision; Planning; Life cycle costing aids planning. A business can adequately plan it is activities when it is aware of the various costs involved (El-haram &Mareijak, 2002).

Balanced Scorecard

A balanced scorecard is structured information that is used by business managers to track the implementation of activities. Balanced scorecard denotes performance management report that is used by management. The team is focused on managing the execution of operational activities. Balanced scorecard is not limited to a business. It is also used by individuals to monitor personal activities (Lawrie, Gavin, &Cobbold, 2004).

Initially, balanced scorecard was projected as a general purpose management system performance. It was later migrated as an idea to a strategic performance management. In the recent, it become a major component of structured approaches corporate strategic management Balance scorecard helps to select which data to observe, and guarantee that such data is consistent with the ability of the observer to intervene (Phaithun, 2018).

One of the major merits of balance scorecard is that it allows businesses to pool information and data together into a single report rather than having multiple tools that could be misleading. The system enables the saving of time, money, and resources by management particularly when there is the need to review activities for the improvement of operations (Evan, 2022).

Total Quality Management (TQM)

Total Quality Management (TQM is one of the managerial accounting techniques that tend to reduce mistakes and errors in production. It guaranty clients’ experience, and ensures that employees maintain normal speed with necessary training. Total quality management target to involve all parties in the production process responsible for the overall quality of the final output or service. Total quality management is a designed approach that embraces the whole organizational management. It ameliorates the quality of an organization's products through internal practices (Adam, 2023).

Concept of Firms' Performance

Performance refers to the level at which firms achieve their aims through efficient and effective use of resources for possible performance. SMEs is quantify in terms of economic value, effort realization, customer focus, and profitability (Zakaria, 2021). In most cases, growth is considered as the most important performance indicator for small businessesDebnath (2012). Debnath (2012) argued further that performance is measured to include both financial and non-financial performance.

Theories related to the Study

Contingency Theory

Contingency theory according to Michele (2002 is "a theoretical view of organizational behaviour that stresses how contingent elements such as technology and the task environment affects the pattern and operation of an organizations. The theory represents a unification of organizational theory and sociological functionalist view of an organization. Through the blend of organizational decision-making and sociological functionalist concerns, contingency theory assimilate and take on the perspective of vital organizational procedures such as decision-making and control. Traditionally, management accounting research employ contingency theory to reflect and promote the belief that decision-making should be rational. The managerial accounting information use by managers serves as a quantitative terminology of organizational goals. In the recent, accounting researchers have attempted to broadening the contingency contention to cover the relationship between firms' strategies and the pattern of their control systems. Despite the fact that contingency theory has an overall wide influence on management accounting research, it is criticized for representing a deterministic, ahistorical view of organizations which provides limited insight as to the intercede procedures of organizations."

Agency Theory

Nelson, (2010) stressed that "agency theory assumes that there is a contractual relationship between members of a firm. It recognizes the existence of two groups. That is principal and agent. The principals will assign decision making authority to the agent and expect the agent to perform certain functions in return for a reward. The principal/agent relationship can exist in any organization and usually starts from the shareholder/director and ends with the supervisor. In an organization setting, which involves doubtfulness and technical information, the agent's actions may not satisfy the interests of the principal. The theory believes that individuals are assumed to be rational and to have limitless computational ability." Out of the theories, this study adopts contingency theory based on its relevant to the study.

Empirical Study

Oladele, Alagbe and Ojo (2023) work on the connection between management accounting techniques, represented by benchmarking, value chain accounting, balance scorecard and SMEs performance in Oyo State, Nigeria. The study used questionnaire to obtain data. The data obtained were analyzed by Partial Least Square (PLS) techniques. The outcome of the research shown that benchmarking, value chain costing and balanced scorecard have positive relationship with performance of SMEs in Nigeria

Saleh (2015) researched on impact of modern management accounting techniques on decision-making in Jordanian industrial companies. Questionnaire was used by the study to obtain data. The research found that trending managerial accounting techniques like target costing and Balanced Scorecard have significant relevance in the decision making of the Jordanian industrial companies.

Shadi, Wan.&Nik. (2020) carried out a research work on the relationship between Modern Management Accounting techniques and organizational performance of Industrial Sector Listed in Amman Stock Exchange. Questionnaire was used to get data in the research work. Smart-PLS software was used to analyzed the data. The outcome of the research indicated that trending managerial accounting techniques had a strongly positive and significant effect on Organizational Performance of Industrial Sector Listed in Amman Stock Exchange in Malaysia.

Lanka (2021) research on Modern management accounting practices in University of Kelaniya. Questionnaire was used to collect data.

International Journal of Advances in Engineering and Management (IJAEM)
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The data was analyzed by performance measurement construct. The result of the work showed that Management Accounting System performance can be enhanced by the adoption of Modern Management Accounting techniques in manufacturing organizations.

Ermias B. (2013) worked on advanced management accounting techniques in manufacturing firms in Ethiopia ErmiasBogale College of Business and Economics,. Questionnaire was used to obtain data. The data was analyzed with Pearson correlation coefficient. The study found that advance managerial accounting techniques has strong relationship with the operation manufacturing firms manufacturing Firms in Ethiopia.

III. METHODOLOGY

Research Design

The study applied survey research design. Survey research design was used to obtain information from respondents concerning their views on trending managerial accounting techniques and firms performance in Nigeria.

The population of the study are grouped into A and B comprising of practitioners from business organizations and scholars from various tertiary in institutions inOndo State, Nigeria. The study adopted stratified random sampling technique in selecting the 200 respondents which are made up of the accountants, auditors, audit firms and scholars who taught managerial accounting in various tertiary institutions in OndoState, Nigeria. The composition of the respondents is as follows:

Group A	**No. Sample**
Accountant	80
Auditors	35
Audit firms	5
Total	**120**
Group B	**No Sample**
Senior Lecturers	65
Associate Professors	10
Professors	5
Total	**80**
Grand Total	**200**

Research Instrument

The research instrument used for the study is questionnaire. The instrument was structured in multiple choices to assist the respondents in forming their opinion about trending managerial accounting techniques and firms performance in Nigeria.

Method of Data Analysis

The data obtained from the respondents were coded to suit the data analysis technique. The analysis of data in the study was done with the aid of Analysis of Covariance (ANCOVA) technique.

Model Specification

The adopted model developed for the study for the purpose of estimation is as follows:

FP = f (MMAT)

MMAT = (ABC, ABM, BM, BS, TQM)

$FP= \beta_0 + \beta_1 BC + \beta_2 BM + \beta_3 BeM + \beta_4 BS+ \beta_5 TQM + U$

Where:

FP= Firms' Performance

MMAT = Modern Managerial Accounting Techniques

BC = Based Costing

BM = Based Management

BeM = Benchmarking

BS = Balance Scorecard

TQM = Total Quality Management

U = Stochastic Error Term

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Regression Coefficients.

DATA PRESENTATION

Demographic Characteristics of Respondents

The following tables show the summary of the personal information obtained from the respondents

Table 1: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	87	43.7	43.7	43.7
	Female	112	56.3	56.3	100.0
	Total	**199**	**100.0**	**100.0**	

Source: Author Compilation, 2024

87 of respondents captured representing (43.7%) of practitioners were male, while 112 of 199 of respondent were female that are practitioners (56.3%). This indicates that most of the practitioners answered were females. This is shown in the presentation below.

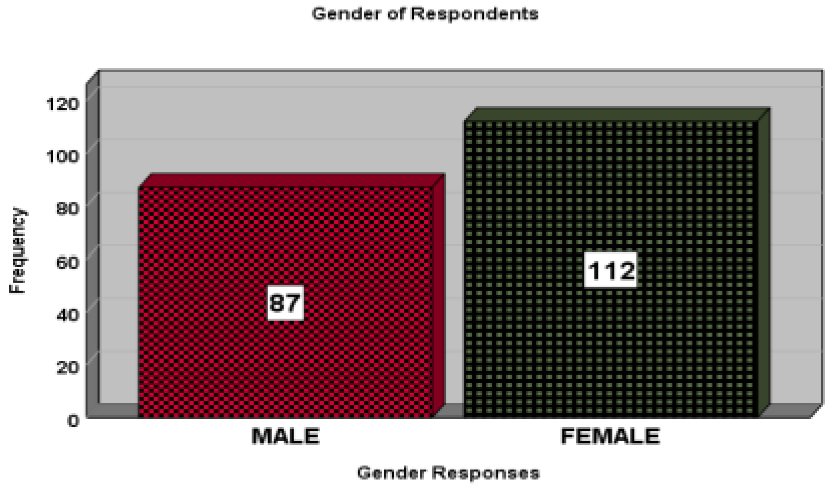

Table 2: Marital Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	108	54.3	54.3	54.3
	Single	16	8.0	8.0	62.3
	Others	75	37.7	37.7	100.0
	Total	**199**	**100.0**	**100.0**	

Source: Author Compilation, 2024

The table 2 above shows the marital status of respondents under study on modern management accounting techniques and firms performance. 108, (54.3%) were married and 16, (8.0%) were single while 75, (37.7%) were unrevealed under their status. More of them were married in deed.

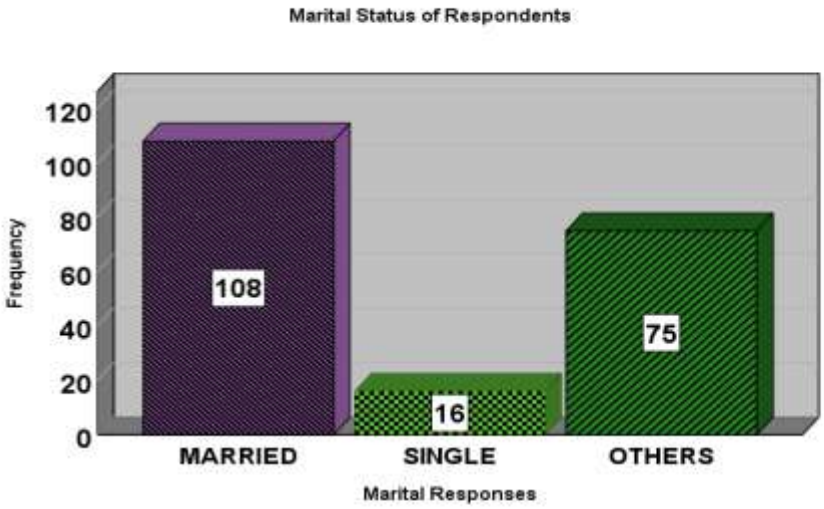

Table 3: Educational Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WASCE	1	.5	.5	.5
	HND/BSc	135	67.8	67.8	68.3
	MSc	16	8.0	8.0	76.4
	Ph.D.	47	23.6	23.6	100.0
	Total	**199**	**100.0**	**100.0**	

Source: Author Compilation, 2024

Thepresent position showed the academic level of the scholars and practitioners that were captured in the table three above; 135 of them were Higher National Diploma and Bachelor of Science (HND/BSc) representing (67.8%), 47 of them were Doctorate Holders among Accountant, Auditors, Audit firms, Senior Lecturers, Associate Professors, Professorsrepresenting (23.6%), 16 of them were Master of Science (MSc) representing (8.0%). The table showed that more Higher National Diploma and Bachelor of Science (HND/BSc) responded to the research.

Educational Level of Respondents

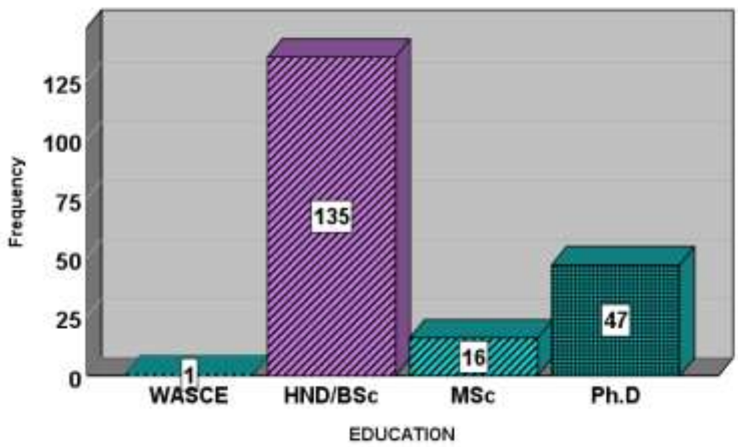

Table 4: Professional Qualification of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ICAN	91	45.7	45.7	45.7
	ANAN	38	19.1	19.1	64.8
	OTHER	70	35.2	35.2	100.0
	Total	**199**	**100.0**	**100.0**	

Source: Author Compilation, 2024

The table above shown Professional Qualification of Respondents that 91 (45.7%) were ICAN holders approved and chartered practitioners, 38 (19.1%) were ANAN practitioners while 70 (35.2%) were other professional in others field area. More chartered accountants responded to the questions asked.

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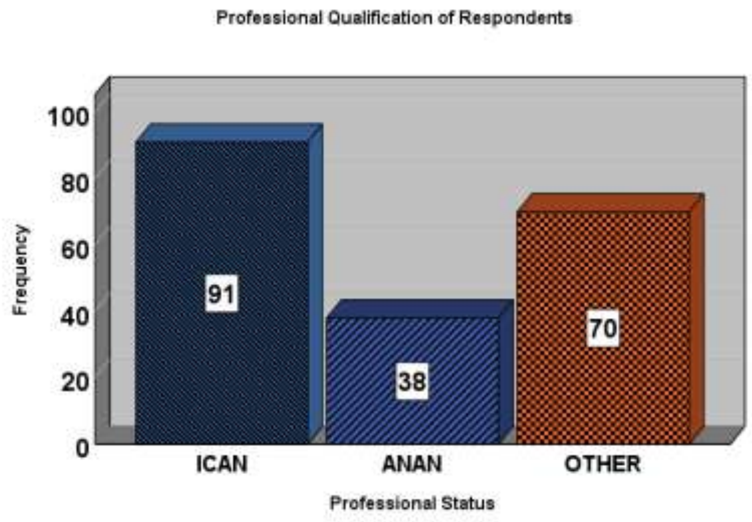

Multiple Regression and Analysis of Covariance (ANCOVA)

Multiple regression is an extension of simple regression from one to several quantitative explanatory variables. It involves more than one independent variable and the curves obtained are not only used to make predictions rather for the purposes of optimization. The structural model is of the form.

$E(Y / x_1; x_2; x_3) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3$

i.e. the expected value of Y (the outcome) given the values of the explanatory variables β_1 through β_3. β's are fixed (but unknown) constants. (Pedhazur, 2017).

$FP = \beta_0 + \beta_1 BC + \beta_2 BM + \beta_3 BeM + \beta_4 BS + \beta_5 TQM + €$

Table 5: Levene's Test of Equality of Error Variances

Dependent Variable: Firms' Performance

F	df1	df2	Sig.
.578	3	191	.680

Source: Author Compilation, 2024

Levene'sTest indicated that the assumption of homogeneity of variance was not violated, F (4, 194)= 0.578, p=0.680, as P> 0.05, equal variances can be assumed. $W<F_{\alpha,\ k-1,\ N-k}$, it implies that there is homogeneity of variances. Tests the null hypothesis that the error variance of the dependent variable is equal across groups.Homogeneity (equality) of variance. The variances (SD squared) should be similar for all the groups. As long as p-Value is greater than 0.05 (5%) level of significance, therefore, (0.680>0.05). the residual of the dependent variable (firm performance) is equal at all level.

H_{01}: Trending managerial accounting techniques like Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management have no significant relevant on firms' performance in Nigeria.

Table 6: Tests of Normality for Hypothesis One

	Modern Managerial Accounting Techniques	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Relevant to Firms' Performance	D	.354	98	.092	.779	98	.078
	U	.310	18	.078	.831	18	.054
	A	.328	61	.743	.787	61	.450
	SA	.250	18	.214	.805	18	.082

a. Lilliefors Significance Correction

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Shapiro-Wilk test indicated that Firms Performance test was normally distributed in the group, W (98) = .779, p= .078, (18) = .831, p= .054, (61) = .787, p= .450, and (18) = .805, p= .082, Shapiro-Wilk test indicated that Firms Performance was normally distributed along all response of Likert scale format. Because p-value(s) are greater than 0.05 level of significance.

Table 7: Test between (MMAT) Variable and Covariate Variable (Edu)

		Modern Managerial Accounting Techniques	Educational Qualification
Modern Managerial Accounting Techniques	Pearson Correlation	1	**.756****
	Sig. (2-tailed)		.000
	N	199	199
Educational Qualification	Pearson Correlation	**.756****	1
	Sig. (2-tailed)	.000	
	N	199	199

Source: Author Compilation, 2024

Variables should not be highly correlated (i.e. r>0.8). The correlation of variable was less than 0.8, the relationship between Modern Managerial Accounting Techniques (MMAT) and Educational qualification of Accountant, Auditors, Audit firms, Senior Lecturers, Associate Professors, Professors were was (r<0.8) 0.756**<0.8 for this hypothesis. The higher correlation value negates the freedom of independent from covariate variable.

Table 8: Tests of Between-Subjects Effects for Modern Managerial Accounting Techniques

Dependent Variable: **Firm Performance**

Source	Type I Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.422[a]	6	.570	.535	.781	.017
Intercept	2688.082	1	2688.082	2520.552	.000	.931
MMAT	2.586	3	.862	.808	.091	.013
MMAT * Education	.836	3	.279	.261	.853	.004
Error	200.496	188	1.066			
Total	2892.000	199				
Corrected Total	203.918	194				

a. R-Squared = .067 (Adjusted R-Squared = .065)

Source: Author Compilation, 2024

There was a no significant difference in mean weight lost F (3,188) = 0.808, p=.091 between the ModernManagerialAccountingTechniques and firm performance, whilst adjusting for education level. The partial Eta Squared value indicates the effect Modern Managerial Accounting Techniques, It can be seen that for Modern Managerial Accounting Techniques as effect on firm performance in Nigeria.

After adjusting for educational level of practitioners concerning modern management accounting techniques applied for firm performance, there was significant effect of modern managerial techniques on firm performance, F(3, 188)= .808, P= .091, $\eta\rho^2$ =0.013< 0.05. Estimated marginal means was significantly related to firm performance.

From the results of ANCOVA table 7, R^2 which is the measure of how much of the variability in the outcome is accounted for by the predictors is 0.067. This suggests that the model accounts for 0.67% of variance in the independent variables. There is evidence of the effects of one independent variable on the dependent variable when the education was controlled as a covariate.

F-value of modern managerial accounting techniques is 0.808, with not significance of (0.091>.05), therefore, modern managerial accounting techniques has significant effects on firm performance in spite of educational covariate. The F-value of firm performance is 0.261, with a significance of (0.004<0.05), thus modern

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managerial accounting techniques has significant effect on firm performance when the effects of education are removed. From the hypothesis one, Trending managerial accounting techniques like benchmarking, activity based costing, balance scorecard, activity based management and total quality management have no significant relevant to firms' performance in Nigeria can be rejected.

Table 9: Levene's Test of Equality of Error Variances

Dependent Variable: organizational decision making

F	df1	df2	Sig.
2.222	4	190	.068

Levene'sTest indicated that the assumption of homogeneity of variance was not violated, $F(4, 190)= 2.222$, $p=0.068$. As $P> 0.05$, equal variances can be assumed. $W <F_{\alpha,\ k-1,\ N-k}$, it implies that there is homogeneity of variances. Tests the null hypothesis that the error variance of the dependent variable is equal across groups.Homogeneity (equality) of variance. The variances (SD squared) should be similar for all the groups. As long as p-Value is greater than 0.05 (5%) level of significance, therefore, (0.068>0.05). the residual of the dependent variable (firms performance) is equal at all level.

H_{02}: Trending managerial accounting techniques like Benchmarking, Activity based costing, Balance scorecard, Activity based management and Total quality management do not enhance the value of firms' performance in Nigeria.

Table 8: Tests of Normality for Hypothesis Two

	Enhance the Value of Firms' Performance	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Managerial Accounting Techniques	SD	.254	6	.200*	.866	6	.212
	D	.258	21	.061	.795	21	.041
	U	.424	10	.045	.699	10	.051
	A	.315	100	.065	.805	100	.033
	SA	.381	58	.064	.743	58	.043

a. Lilliefors Significance Correction

Shapiro-Wilk test indicated that Views of the Practitioners and Scholars test was normally distributed alongside with firms performance in the group, W (6) = .866, p= .212, (21) = .795, p= .041, (10) = .699, p= .051, (100) = .805, p= .033, and (58) = .743, p= .043 Shapiro-Wilk test indicated that Views of the Practitioners and Scholars was normally distributed along all response of Likert scale format. Because p-value(s) are greater than 0.05 level of significance.

Table 9: Correlations Test between (VFP) Variable and Covariate Variable (Edu)

		Managerial Accounting Techniques	Educational Qualification
Managerial Accounting Techniques	Pearson Correlation	1	**.192***
	Sig. (2-tailed)		.011
	N	199	199
Educational Qualification	Pearson Correlation	**.192***	1
	Sig. (2-tailed)	.011	
	N	199	199

*. Correlation is significant at the 0.05 level (2-tailed).

Variables should not be highly correlated (i.e. R>0.8). The correlation of variable was less than 0.8, the relationship between views of the Managerial Accounting Techniques (MAT) and Educational qualification of Practitioners was ($r<0.8$) $0.192^{**}<0.8$ for this hypothesis. The higher correlation value negates the freedom of independent from covariate variable.

International Journal of Advances in Engineering and Management (IJAEM)
Volume 6, Issue 03 Mar. 2024, pp: 279-294 www.ijaem.net ISSN: 2395-5252

Table 10: Tests of Between-Subjects Effects for Views of the Practitioners and Scholars

DependentVariable:Enhance the Value of Firms' Performance

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	7.116[a]	7	1.017	.966	.458	.035
Intercept	4.612	1	4.612	4.382	.003	.023
VFP	5.623	2	2.812	2.672	.002	.028
VFP * Education	6.374	3	2.125	2.019	.013	.031
Error	196.802	187	1.052			
Total	2892.000	199				
Corrected Total	203.918	197				

a. R Squared = .055 (Adjusted R Squared = .051)

There was significant difference in mean of views of the practitioners and scholars concerning Benchmarking, activitywas F (2,197)= 2.672, P=.002. Views of the Practitioners and Scholar and Benchmarking Activity onenhancing the Value of Firms' Performanceafter adjusting educational covariate done with partial Eta Squared value indicates the views of the Practitioners and Scholar in the field substantial, it can be seen that Practitioners and Scholar view concerning managerial accounting technique was importance. R^2 i.e. coefficient of determination is of most interest to us, R^2 gives the percentage of variability of the dependent variable which is explained by the explanatory variables. R^2 has a range from 0 to 1. R^2 approaching 1 indicates a better goodness of fit between the dependent and explanatory variables. R^2 = .055 (Adjusted R Squared = 0.051).

After controlling for educational level of practitioners concerning management accounting techniques applied for decision making, there was significant effect of views of the Practitioners and Scholars on decision making, F(2, 197)= 2.019 P= .013, $\eta\rho^2$= 0.031<0.05. Estimated marginal means was significantly related to Benchmarking Activity onenhancing the Value of Firms' Performance.

The variance in the dependent variable poses by 5.5%. There is evidence of the effects of one independent variable on the dependent variable when the education was controlled as a covariate; therefore, Views of the Practitioners and Scholars has significant effects on Benchmarking Activity onenhancing the Value of Firms' Performance in spite of educational covariate. The F-value of firms performance is 2.672, with a significance of .002, less than 0.05, (.002<0.05) thus Views of the Practitioners and Scholars has significant effect on Benchmarking Activity onenhancing the Value of Firms' Performance making when the effects of education are removed.

On the hypothesis two, there is significant difference between traditional and modern managerial accounting techniques in organizational decision making in Nigeria, after adjusting for educational level of practitioners concerning modern management accounting techniques applied for decision making, there was no significant effect of modern managerial techniques on decision making, F(3, 188)= .808, P= .491, $\eta\rho^2$ =0.013<0.05. Estimated marginal means was significantly related tofirms performance.

From the results of ANCOVA on table 10, R^2 which was the measure of how much of the variability in the outcome is accounted for by the predictors is 0.055. This suggests that the model accounts for 5.5% of variance in the independent variables. There is evidence of the effects of one independent variable on the dependent variable when the education was controlled as a covariate. F-value of modern managerial accounting techniques is 0.808, with not significance of (0.491>.05), therefore, modern managerial accounting techniques has significant effects on firm performance in spite of educational covariate. The F-value of firm performance making is 2.019, with a significance of (0.013<0.05), thus modern managerial accounting techniques has no significant effect on firms performance when the effects of education are removed. The effectiveness of management accounting is identified in the report with its areas of application. Without managerial accounting techniques, the firm cannot attain its desired targets in planning, forecasting, performance tracking and project analysis. It is identified in the report that management accounting is carried out with the application of several techniques and managers choose the required technique as per the organizational requirements. For example, for controlling purposes, budgeting, standard costing, historical costing, and marginal costing are important while for the analysis of funds and cash, fund flow and cash flow reports are used. Upon this, modern managerial accounting techniques through Benchmarking Activity onenhancing the Value of Firms' Performance was significant for firm performance in Nigeria and null hypothesis two (H_{02}) was rejected.

Relevance views of professional and scholars as regards modern managerial accounting techniques in Nigeria has come important because the views of the scholars as regards modern managerial accounting techniques on firm performance in Nigeria from an angle of accountant, auditor and audit firm. There was significant weight lost $F(2,197)= 2.672$, $p=.002$ between views of the Professional and Scholar on the view of Benchmarking, Activity based costing, Balance scorecard, Activity based management on firm performance after adjusting educational covariate. The partial Eta Squared value indicates the views of the Professional and Scholar in the field, It can be seen that Practitioners and Scholar view concerning managerial accounting is importance. R^2 i.e. coefficient of determination is of most interest to us. R^2 gives the percentage of variability of the dependent variable which is explained by the explanatory variables. R^2 has a range from 0 to 1. R^2 approaching 1 indicates a better goodness of fit between the dependent and explanatory variables. $R^2 = .035$ (Adjusted R Squared = 0.011).

After controlling for educational level of Professional like accountants concerning management accounting techniques applied for decision making, there was significant effect of views of the Practitioners and Scholars on decision making, $F(2, 197)= 2.019$ $P= .013$, $\eta\rho^2= 0.031<0.05$. Estimated marginal means was significantly related to firm performance. The variance in the dependent variable poses by 3.5%. There is evidence of the effects of one independent variable on the dependent variable when the education was controlled as a covariate; therefore, views of the Professional and Scholars has significant effects on firm performance in spite of educational covariate. The F-value of firms performance is 2.672, with a significance of .002, less than 0.05, ($.002<0.05$) thus views of the Practitioners and Scholars has significant effect on firm performance when the effects of education are removed. The skills and capacities by productive and successful utilization of the organization's resources are implemented as the essential instruments for enhancement of corporate efficiency that gaining from it demands aware management. Therefore, gathering and supplying related details to the results is indispensable for companies where the need may be fulfilled using management accounting techniques.

IV. CONCLUSION

From the findings, it was disclosed that organizations that observed management accounting techniques both traditional and modern method base on knowledge acquire pave way for organization performance at all level and this be manifested in all dimension; (budget and budgetary control, standard and standard costing and lifecycle costing) either on a part of traditional or modern view point, research has showed high quality of decision making from the Modern Managerial Accounting Techniques mostly large firms that fully invested in management accounting techniques were able to mitigate waste and ill-decision. The findings of the study found that management accounting techniques had significant positive relationship with firm development indicators in both view and practice. In view of this, the organization, particularly, production process must ensure that an effective management accounting techniques which contributes to staff morale, skills and knowledge is established; and to ensure that decisions are made at the appropriate level of management and the appropriate time is affected. They should ensure that the internal audit department in the organization is headed and managed by qualified personnel. The covariate adjustment co-efficient for all measures of performance and effective management accounting techniques are positively significant; meaning that all the qualitative characteristics and level of education of professionals and scholars are relevant in the field and a better measurement of decision making for organizations should be ultimately create value for the management and organizations.

Recommendations

i. Establishments should develop a mechanism to incorporate relevant feedback from the use of modern managerial techniques as a control.
ii. Organizations should develop and organize constant seminars and workshops to train and educate managers, employees (production) and accountant on matters pertaining modern managerial accounting

techniques and management policies and procedures to enhance their skills and expertise in their practice as professionals.

REFERENCES

[1]. Abdullah, N., &Rosli, N. F. (2015).An evaluation on determinants of SMEs performance in Malaysia.South East Asia Journal of Contemporary Business, Economics and Law, 7(2), 16-23.

[2]. Adam, B. (2023). What is total quality management and why is it important? Online publication. Retrieved30:10:23:11:29.From: https://www.investopedia.com/terms/t/total-quality-management-tqm.asp

[3]. Ahmed, M. H. (2020). Introduction to Management Accounting.Online publication. Retrieved02:12:2020:13:20. From: https://www.researchgate.net/publication/344155211.

[4]. Angela, L. (2015). Contemporary management accounting in the UK service sector. The University of Gloucestershire

[5]. Ardiansyah, R., Elizabeth S. & Wilson, K. (2017).Management Accounting Techniques and Corporate Performance of Manufacturing Industries.Accounting Department, Faculty of Economics, Tarumanagara University, Indonesia.

[6]. Aroloye, B. (2017). SMEs contribute about 48% to GDP. The Nation Newspaper. Retrieved from: http://thenationonlineng.net/smes-contribute-48-gdp/

[7]. Ateke, B. W., &Nwiepe, N. M. (2017). Agile supply chain management practices and competitiveness of SMEs: A conceptualization. International Journal of Social Sciences and Management Research, 3(7), 1-10.

[8]. Atkinson, A., Kaplan, R., Matsumara, E., & Young, M. (2012). Management accounting: Information for decision-making and strategy execution. Management Accounting ResearchJournal12 (4), 111-114.Online publication. From: https://doi.org/10.53819/10:2023:08:51

[9]. Atkinson, A., Kaplan, R., Matsumara, E., & Young, M. (2012). Management accounting: Information for decision-making and strategy execution. Management Accounting ResearchJournal12 (4), 111-114.Online publication. From: https://doi.org/10.53819/10:2023:08:51

[10]. Daft, R. L. (2013). Organizational Theory and Design, 11th Ed.

[11]. Dahal, R. K., Bhattarai, G., &Karki, D. (2020). Management accounting techniques on rationalize decisions in the Nepalese listed manufacturing companies. Researcher: A Research Journal of Culture and Society, 4(1), 112-128.

[12]. Dandago, K. I. & Adah, A. (2013). The Relevance of Variance Analysis in Managerial cost control. Published on line:15:12:20:17. From: https://www.semanticscholar.org/paper/The-Relevance-of-Variance-Analysis-in-Managerial DandagoAdah/78c8109ad5d0790bdcdfeb1521d621b4711af467.

[13]. David, F.,Caro T. & Maria, X.. (2001). the future of management accounting: A South Australia Perspective. International business & economics research Journal 7 (1): 95-96.

[14]. Debnath, G. C. (2012). Influence of cost accounting techniques on performance improvement: An empirical study on manufacturing organizations in Bangladesh. The Cost & Management, 40(2), 22-24.

[15]. Ebitu, E. T., Glory, B., & Alfred, U. J. (2016). An appraisal of Nigeria's micro, small and medium enterprises (MSMES): Growth, challenges and prospects. British Journal of Marketing Studies, 4(5), 21-36.

[16]. Ekbatani, M. A. &Sangeladji, M. A. (2008). Traditional vs. contemporary managerial/cost accounting techniques: Differences between opinions of educators and practitioners. International business & economics research Journal 7 (1): 94-95.

[17]. Ermias B. (2013). Advanced management accounting techniques in manufacturing firms in Ethiopia ErmiasBogale College of Business and Economics, Department of Accounting and Finance Haramaya University.

[18]. European Investment Bank (2011). Supporting SMES in developing countries.Retrieved from.http://www.eib.org/infocentre/press/news/all/supporting-smes-indeveloping-countries.htm

[19]. Ford, C. M. &Gioia, D. A. (2000).Factors influencing creativity in the domain of managerial decision making. Journal of Management, 26, 705–732.

[20]. Ford, C. M. &Gioia, D. A. (2000).Factors influencing creativity in the domain of managerial decision making. Journal of management, 26, 705–732.

[21]. Hilal, M. I. M., &Gunapalan, S. (2020). Entrepreneurial orientation, financial literacy and business performance of small and medium enterprises: sensing the research issue. International Journal of Research, Innovation and Commercialisation, 3(2), 109-116.

[22]. John, L. & Christine, Y. (1997). Management Accounting: International business and economics research Journal 7 (1): 93-94.

[23]. Kennedy, T. & Bull, R. (2000).Management Accounting. On line publication:17:12:2020.From:https://en.wikipedia.org/wiki/Activitybased_management

[24]. Khurram, A. S. Y. & Zahid, H. (2014).Traditional vs. contemporary management accounting practices and its role and usage across business life cycle stages: evidence from Pakistani financial sector. International Journal of academic research in accounting, finance and management sciences Vol. 4 (4): 104–125.

[25]. Khurram, A., Sohail Y., Muhammad U. & Zahid H. (2014).Traditional vs. contemporary management accounting practices and its role and usage across business life cycle stages: Evidence from Pakistani financial sector. International Journal of academic research in accounting, finance and management sciences Vol. 4 (4): 104–125.

[26]. Kiechel, W. (2010).The lords of strategy. Harvard Business Press.

[27]. Lanka G. H.A.L.C (2021). Modern management accounting practices: Effect on management accounting system performance of listed manufacturing sector organizations in SRI. University of Kelaniya

[28]. Lawrie, Gavin J. G. &Cobbold, I. (2004). "3rd Generation Balanced Scorecard: Evolution of an effective strategic control tool" International Journal of productivity and performance management. 53 (7): 611–623.

[29]. Lawrie, Gavin J. G. &Cobbold, I. (2020). "3rd Generation Balanced Scorecard: Evolution of an effective strategic control tool" International Journal of productivity and performance management. 53 (7): 611–623.

[30]. Lee, M. A. & Stinson, D. D. (2013). Sustaining corporate performance through employee well-being: applying the Stinson wellness model in a business environment.International Journal of strategic management, 13 (3), 67-78.

[31]. Magembe, Y. (2017). Credit access by small and medium enterprises in Tanzania: A case study of Dar es Salaam City. International Journal of Economic Management Sciences, 6(5), 1-9.

[32]. Mark, L. & David, D. S. (2014).Organizational Decision Making Models: Comparing andContrasting to the Stinson Wellness Model. Trinity Western University, Langley, British Columbia, Canada.

[33]. Mason, O H & Jones, G. R. (2013).Organizational Theory, Design, and Change, 7th Ed.

[34]. Michele, M. (2002).Managerial accounting research: The contributions of organizational and sociological theories. Journal of management accounting research (8): 1-35.

[35]. Nelson, M. W. (2010). The origin and evolution of management accounting: A review of the theoretical framework. Problems and perspectives in management, Journal 8 (3-1).

[36]. Normah, O. &Rokiah, M. (2002).The nature and characteristics of management accounting practices in Japanese. International Business & economics research Journal 7 (1): 96.

[37]. **Oladele,** T. O., Alagbe, E. A. &Ojo O. I. (2023).Management accounting techniques and performance of SMEs in Nigeria: moderating role of accounting information quality [1] Department of Management, Nigerian Army University Biu, Borno State. [2] Department of Accounting LadokeAkintola University of Technology, Ogbomoso, Oyo State, Nigeria.[3] School of International Business Teesside University.

[38]. Oluyinka I. O. & Ezekiel O. O. (2020). Firm culture: Management Accounting Practices. Afe Babalola University, Ado-Ekiti, Ekiti-State, Nigeria.

[39]. Peter, M. G. (2014). Effects of management accounting practices on

financial performance of manufacturing companies in Kenya. Department of Finance and Accounting, School of Business, University of Nairobi

[40]. Peter, M. G. (2014). Effects of management accounting practices on financial performance of manufacturing companies in Kenya. Department of Finance and Accounting, School of Business, University of Nairobi

[41]. Phaithun, I.(2018). Successful Managerial Accounting Practices, the Antecedents and Consequences: Empirical evidence from SMEs Ceramic. Accounting Department, Faculty of Management Sciences, LampamgRajbhat University

[42]. Phomlaphatrachakom, K. (2020). Accounting Control System, Accounting Information Quality, Value Creation, and Firm Success: An Empirical Investigation of Auto Parts Businesses in Thailand. International Journal of Business, 25(2), 159-177.

[43]. R. D., & Miller, C. C. (2004). Decision making and firm success. Academy of management executiveJournal 18, 8–12.

[44]. Ronal, W. & Hilton, M. H. (2005). Managerial Accounting: Creating Value in a Dynamic Business Environment, Sixth edition.

[45]. Roslender, R.& Hart, S. J. (2003). In search of strategic management accounting:
Theoretical and field study perspectives.
Management accounting research Journal 14(3): 255- 279.

[46]. Saleh M. A. (2015). The impact of the use of modern management accounting techniques to streamline decision-making in the Jordanian Industrial Companies. Accounting department, Israuniversity, P.O Box 22, code 11622, Amman – Jordan

[47]. Shadi, M. A., Wan, A. E. &Nik M. N. N.M. R. (2020). Relationship between Modern Management Accounting Techniques and Organizational Performance of Industrial Sector Listed in Amman Stock Exchange Faculty of Economics and Management Sciences, Universiti Sultan ZainalAbidin, Malaysia

[48]. Zakaria, J. (2021). Human capital, entrepreneurial ability and organizational commitment of small business performance through manager satisfaction.IOSR Journal of Humanities and Social Science, 21(5), 30-36.

[49]. Zakaria, J. (2021). Human capital, entrepreneurial ability and organizational commitment of small business performance through manager satisfaction.IOSR Journal of Humanities and Social Science, 21(5), 30-36.