

## THE ROLE OF INFORMATION TECHNOLOGY IN SMALL AND MEDIUM SIZED BUSINESS

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### ABSTRACT

*The focus of this research is on the role of information technology in the success of small and medium sized business. The Small and medium sized business has been recognized worldwide for its role in economic advancement through ways various like; wealth generation, employment creation, and poverty reduction. They are playing a big role in fastening growth, creativity and prosperity enterprise. They are an important part of the economic fabric in most developing countries, and. Although smaller in size, they are the most important enterprises in the economy due to the fact that when all the individual effects are aggregated, they surpass that of the larger companies. The social and economic advantages of small and medium scale enterprises cannot be overstated. Information information technology serves as a critical tool for recording, analyzing, monitoring and evaluating the financial condition of organizations, preparation of documents necessary for tax purposes, providing information support to many other organizational functions. In the context of SMEs, accounting techniques is important as it can help the firms manage their short-term problems in critical areas like cost accounting, working capital, fund flow and cash flow, Break even analysis, budgeting by providing information to support monitoring and control. An enquiry into their level of adoption of information technology is also studied. A review of related literatures is carried out to examine the extent of work done in the field. A carefully structured questionnaire is used to collected data on the level of adoption of information technology. The result shows that the level of adoption of information technology by small and medium sized business is increasing day by day and that utilization of accounting records significantly influences their performance.*

**KEYWORDS:** *Information Technology, Financial Performance, Inventory Management, CRM.*

### Introduction

Information technology has become a vital and integral part of every business plan. From multinational corporations who maintain mainframe systems and databases to small businesses that own a single computer, IT plays a role. The reasons for the omnipresent use of computer information technology in business can best be determined by looking at how it is being used across the business world. The Small and medium sized business sector has been recognized worldwide for its role in economic advancement through ways various like; wealth generation, employment creation, and poverty reduction (Kithae, Gakure, & Munyao, 2012). Small and medium scale enterprises are a fundamental part of the economic fabric in most developing countries, and they play a very important role in furthering growth, innovation and prosperity. Although smaller in size, they are the most important enterprises in the economy due to the fact that when all then individual effects are aggregated, they surpass that of the larger companies. The social and economic advantages of small and medium scale enterprises cannot be overstated.

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SMEs are defined as non- subsidiary, independent firms which employ less than a given number of employees, this number varies across national systems, other parameters other than the number of employees are used in categorizing businesses as SMEs. As per the time of the new millennium SMES accounted for 95% of firms and 60-70% of employment creation in majority countries in the world (OECD, 2000). Small and Medium Scale Enterprises are mostly found in the service sector of various economies which in most countries account for two-thirds of employment levels. Being highly innovative, they lead to the utilization of our natural resources which in turn translates to increasing the country's wealth through higher productivity. Small and medium scale enterprises have undoubtedly improved the standard of living of so many people especially those in the rural areas (Ariyo, 2005).

Information technology systems are used by organizations to perform various tasks. Some use IT to provide for the basic processing of transactions, while others enable customers, distributors and suppliers to interact with the organization through various communication information technology systems such as the internet. The term " information technology in an organization " can be used for four various task and managerial decision purpose which include: transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems in an organization.

#### **Transaction Processing**

Information technology simplifies the transaction process of an organization. A transaction process system (TPS) is a system that processes transactions that occur within an organization. At the heart of every organization are IT systems whose main role is to capture transaction information, create new information based on the transaction information. TPS will update any transaction process and store that information in a database, so any concerned party in the organization can access that information via a centralized information storage network of internet.

#### **Inventory Management**

When it comes to managing inventory, organizations need to maintain enough stock to meet demand without investing in more than they require. Inventory management systems track the quantity of each item a company maintains, triggering an order of additional stock when the quantities fall below a pre-determined amount. These systems are best used when the inventory management system is connected to the point-of-sale (POS) system. The POS system ensures that each time an item is sold, one of that item is removed from the inventory count, creating a closed information loop between all departments.

#### **Customer Relationship Management**

Companies are using IT to improve the way they design and manage customer relationships. Customer Relationship Management (CRM) systems capture every interaction a company has with a customer, so that a more enriching experience is possible. If a customer calls a call center with an issue, the customer support representative will be able to see what the customer has purchased, view shipping information, call up the training manual for that item and effectively respond to the issue. The entire interaction is stored in the CRM system, ready to be recalled if the customer calls again. The customer has a better, more focused experience and the company benefits from improved productivity.

#### **Communication**

For many companies, email is the principal means of communication between employees, suppliers and customers. Email was one of the early drivers of the Internet, providing a simple and inexpensive means to communicate. Over the years, a number of other communications tools have also evolved, allowing staff to communicate using live chat systems, online meeting tools and video-conferencing systems. Voice over internet protocol (VOIP) telephones and smart-phones offer even more high-tech ways for employees to communicate.

#### **Management Information Systems**

Storing data is only a benefit if that data can be used effectively. Progressive companies use that data as part of their strategic planning process as well as the tactical execution of that strategy. Management Information Systems (MIS) enable companies to track sales data, expenses and productivity levels. The information can be used to track profitability over time, maximize return on investment and identify areas of improvement. Managers can track sales on a daily basis, allowing them to immediately react to lower-than-expected numbers by boosting employee productivity or reducing the cost of an item. SMEs are also require adequate and also sophisticated accounting techniques and systems to better manage scarce resources and enhance customer and owner/manager values, assist them in controlling costs, measuring and improving productivity and thus ensure the achievement of the business goals.

### Literature Review

Most of the existing research literature on accounting in Nigeria SMEs tends to be more biased toward the use of financial accounting techniques and methods by small business owners, information technology adoption as well as research in credit accessibility for SMEs, more so only remote exists in regard of the adoption of modern accounting techniques by SMEs in Nigeria.

A number of Small Scale Enterprises have not given much attention to accounting techniques in relation to their business transaction, despite its importance in the success of businesses. This could be lack of sound knowledge in accounting practices by owners or respective managers. Also, there was difficulty in ascertaining whether comprehensive accounting methods that satisfied the laws under which it was incorporation had been kept. It was hard to determine to what extent no adherence to laid – down accounting procedure and constituted in the wheel of implementation of good accounting system. Difficult exist in ascertaining how far non–recognition of the necessity of accounting techniques to continued existence and growth of this small scale business, low educational background of owners and the employment of unskilled accounting staff had affected the production of unreliable accounting or financial statement. In addition, the pace of adoption of modern accounting techniques has been slow by many organizations, mostly Small business enterprises; this has led to the diminishing relevance of major accounting techniques and methods as a vital aid to managerial decision-making. This gap is commonly referred to as „relevance lost” where organization’s accountants have not entirely abandoned concepts of conventional management accounting despite advancements in the business environment, thereby leading to lack of managerial accounting skills for decision making and lack of technical skills are as much obstacles to developing a small business as is the inability to access credit, which in turn diminish the rate of performances for mostly growing Small and medium scale business enterprises.

**Nandan (2010)** argued that like larger firms SMEs also require adequate and sophisticated accounting techniques and systems to better manage scarce resources and enhance the firm’s values. Although SMEs may have some constraints in utilizing fully accounting techniques/practices due to their relatively small size and limited resources, like larger firms SMEs face similar forms of complexities, uncertainties and are more prone to failures.

**According to Goltz (2011)**, poor accounting techniques are one of the top ten reasons why small-scale businesses fail. i.e. you cannot be in control of a business if you do not know what is going on. With bad numbers, or no numbers, a firm’s is flying blind, and it happens all of the time, this affect the operations and performance of SMEs in Nigeria especially this issue of lack of adoption of good accounting techniques/method which is a worm eating deeply and the large chunk of revenues generated by these SMEs for their growth and survival. These have led to increase in record of dealth of Small and Medium Scale Enterprise (SMEs).

### Objectives of Study

The major objective is to examine the effect of accounting techniques on small scale business performance. Other objectives aimed to be achieved are:

- Evaluate the knowledge levels of various technologies among small business owners and how this affects enterprise performances.
- To determine influence of these technologies i.e. transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems on performance of Small and medium sized business
- To determine the influence of information technology on financial decision-making by Managers of Small and medium sized business
- To determine factors effecting uses of information technology adopting practices in Small and medium sized business
- To find out correlation between uses of information technology and operations of Small and medium sized business

### Hypothesis

In order to realize the above objectives, the following hypothesis has been formulated.

**Hypothesis 1:** **Transaction processing** has no significant influence on performance and success of Small and medium sized business.

**Hypothesis 2:** **Inventory Management** has no significant influence on performance and success of Small and medium sized business.

**Hypothesis 3: CRM and Communication** has no significant influence on performance and success of Small and medium sized business.

**Hypothesis 4: Management Information System** has no significant influence on performance and success of Small and medium sized business,

### Research Methodology

#### Methods of Data Collection

Research methodology comprises the research design, sample design, sources of data, selection of data, various designs and techniques used for analyzing the data. The methodology used for the study at hand is as under:

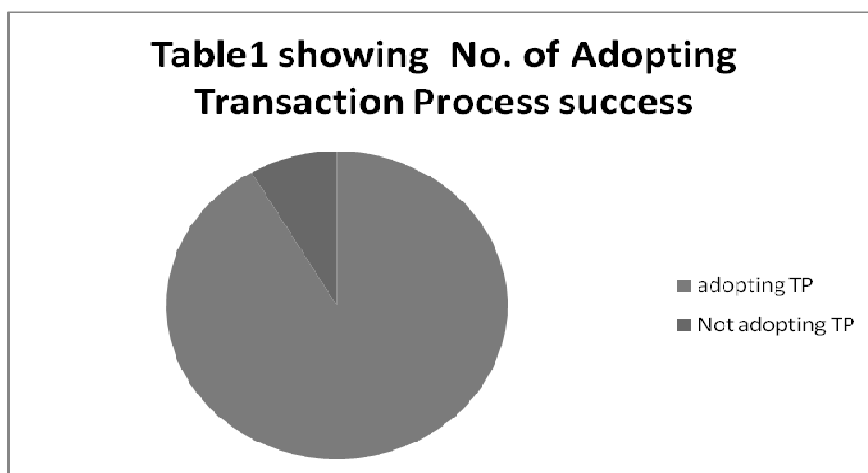
- **Research Design:** The research design used for the research problem in hand is causal research as the objective is to determine which variable might be causing certain behavior, i.e. whether there is a cause and effect relationship between variables. In order to determine cause and effect, it is important to hold the variable that is assumed to cause the change in the other variable(s), constant, and then measure the changes in the other variable(s). This type of research is very complex and the researcher can never be completely certain that there are not other factors influencing the causal relationship, especially when dealing with people's attitudes and motivations.
- **Independent Variables:** Information technology adopted by SME's i. e. transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems.
- **Dependent Variables:** Performance of small scale industries-Simple regression analysis was done to determine statistical relationship between dependent and independent variables. SPSS (Statistical Program for Social Sciences) Version 16.0 was be used to obtain coefficients and regression analysis.

In this regard, we have analyzed the data collected from seventy SME's financial success is measured by scoring the answers to few questions that are aimed to determine the level of success. Information technology data is measured SME's which are adopting techniques and information technology i. e. transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems. From a sample size of 100 samples, 70 samples were collected while 15 samples were discarded for having no useful information, 15 respondents refused to respond. The total rate of response was 70% and therefore considered successful.

#### Data Analysis, Results and Discussion

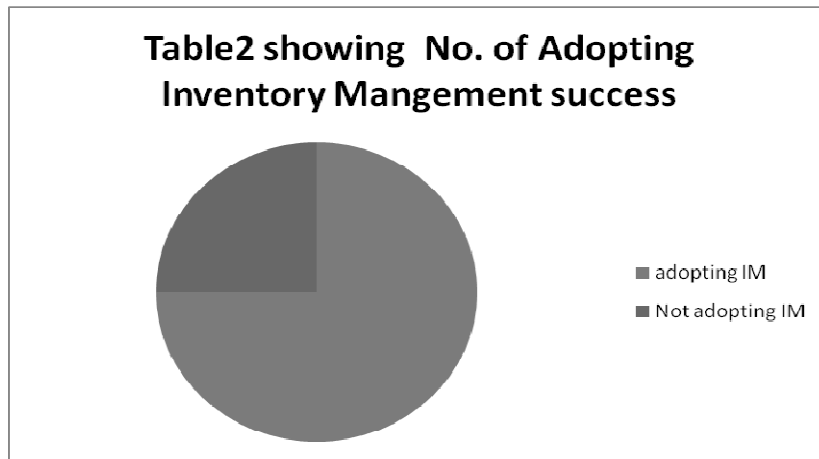
**Table 1: Showing No. of Adopting Transaction Process**

Particulars	Success	Fail	Total
Adopting TP	55	9	64
Not Adopting TP	5	1	6
<b>Total</b>	<b>60</b>	<b>10</b>	<b>70</b>



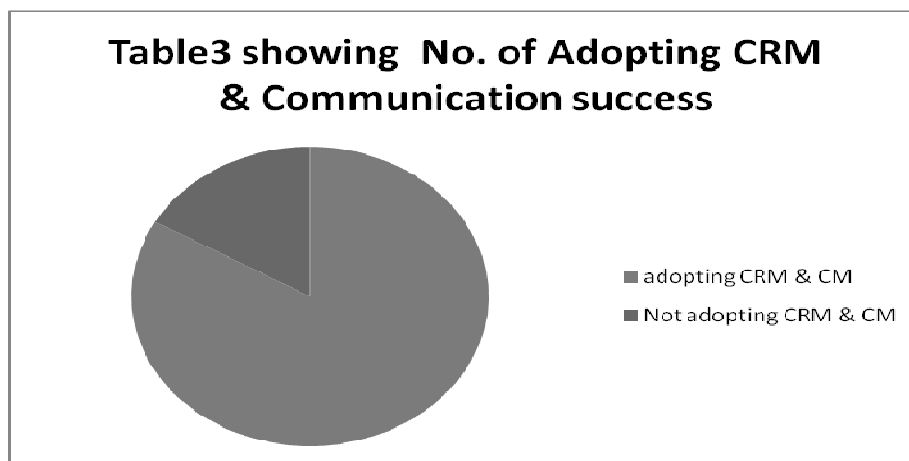
**Table 2: Showing No. of Adopting Inventory Management**

Particulars	Success	Fail	Total
Adopting IM	45	5	50
Not Adopting IM	15	5	20
<b>Total</b>	<b>60</b>	<b>10</b>	<b>70</b>



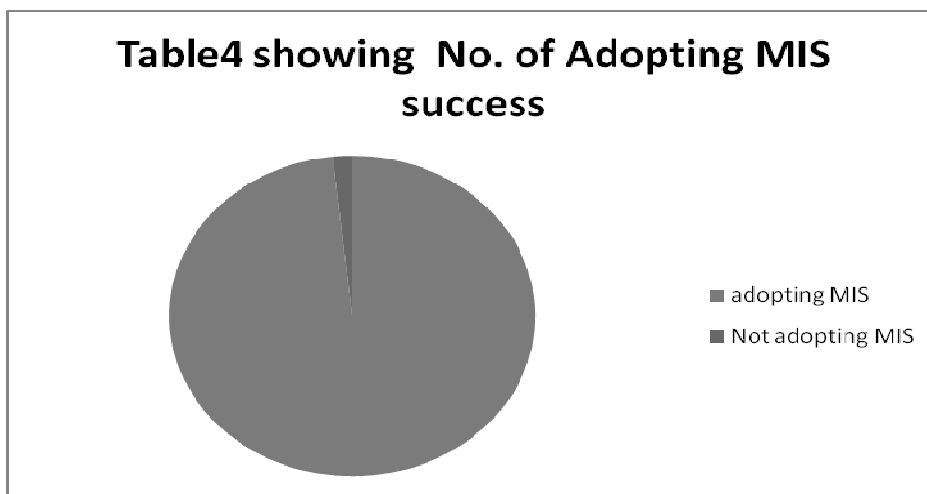
**Table 3: Showing No. of Adopting CRM & Communication**

Particulars	Success	Fail	Total
Adopting CRM & CM	50	9	59
Not Adopting CRM & CM	10	1	11
<b>Total</b>	<b>60</b>	<b>10</b>	<b>70</b>



**Table 4: Showing No. of Adopting MIS**

Particulars	Success	Fail	Total
Adopting MIS	59	9	68
Not Adopting MIS	1	1	2
<b>Total</b>	<b>60</b>	<b>10</b>	<b>70</b>



### FINDINGS

Table 1, 2, 3, 4 and 5 are showing data about independent variable information technology adopted by SME's i. e. transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems and Dependent Variables i.e, performance of small scale industries.

**F-Test Two-Sample for Variances**

	Variable 1	Variable 2
Mean	42.66667	46.66667
Variance	870.3333	1033.333
Observations	3	3
df	2	2
F	0.842258	
P(F<=f) one-tail	0.457188	
F Critical one-tail	0.052632	

Table 5- table 8 has reported the analysis of variance which has tested whether the model is significantly better or not i.e., the F ratio has represented the proving of hypothesis. The aforesaid table reveals that at 95% level of confidence the critical value is 0.4571 . F ration has computed 0.0526. F value is greater than the critical value, therefore difference is to be considered significant and null hypothesis is rejected. Hence it can be calculated that, Transaction processing has significant influence on performance and success of Small and medium sized business.

**Table 6: F-Test Two-Sample for Variances**

	Variable 1	Variable 2
Mean	33.33333	46.66667
Variance	608.3333	1033.333
Observations	3	3
df	2	2
F	0.58871	
P(F<=f) one-tail	0.370558	
F Critical one-tail	0.052632	

The aforesaid table reveals that at 95% level of confidence the critical value is 0.3705. F ration has computed 0.0526. F value is greater than the critical value, therefore difference is to be considered significant and null hypothesis is rejected. Hence it can be calculated that, Inventory Management has significant influence on SMEs performance and success.

**Table 7: F-Test Two-Sample for Variances**

	Variable 1	Variable 2
Mean	39.33333	46.66667
Variance	710.3333	1033.333
Observations	3	3
df	2	2
F	0.687419	
P(F<=f) one-tail	0.407379	
F Critical one-tail	0.052632	

The aforesaid table reveals that at 95% level of confidence the critical value is 0.4074. F ration has computed 0.0526. F value is greater than the critical value, therefore difference is to be considered significant and null hypothesis is rejected. Hence it can be calculated that, CRM and Communication has significant influence on SMEs performance and success.

**Table 8: F-Test Two-Sample for Variances**

	Variable 1	Variable 2
Mean	45.33333	46.66667
Variance	1010.333	1033.333
Observations	3	3
df	2	2
F	0.977742	
P(F<=f) one-tail	0.494373	
F Critical one-tail	0.052632	

The aforesaid table reveals that at 95% level of confidence the critical value is 0.4944. F ration has computed 0.0526. F value is greater than the critical value, therefore difference is to be considered significant and null hypothesis is rejected. Hence it can be calculated that, Management Information System has significant influence on SMEs performance and success.

### Conclusion

This study concludes that there is positive relationship between entrepreneur's success and information technology. Small and medium sized business that are more successful are run by entrepreneurs who are adopting information technology adopted by Small and medium sized business i. e. transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems. The study also concludes that there is higher a chance for information technology adopter entrepreneurs to be more successful than those with low level or not adopting technologies for operation of business and decision making process. The result shows that the level of adoption of transaction processing, Inventory Management, Customer Relationship Management, communication, data management and management information systems among entrepreneurs is high that is definitely improving the success factor. It shows that utilization of information technology records significantly influences their performance.

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