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Review

Electronic Commerce adoption for Business Process Improvement: A case study of Blue Fountain Solution Nigeria

Osayuki E. Ehioghae

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The arrival of the internet has revolutionized how business is conducted in every part of the world. The speed and volume of access is a major area that has been impacted by this technology. However, many organizations in developing countries like Nigeria are yet to have a significant presence on the internet. This research project was conducted using Blue Fountain Solution Nigeria, (BFS) as a case study. The research was aimed at figuring out the bottlenecks transforming a brick-and-Mortar retail and wholesale business in Nigeria with minimal electronic processes, into a full, fledged e-commerce-centered business conducting a sizeable fraction of its transactions over the internet. The research study was aimed at helping the company decide if adopting electronic commerce was going to be beneficial to their organization. For this project, quantitative and qualitative data input, analysis, and interpretation were used. SWOT Analysis of the cost/benefit ratio was applied. Steps for implementing a business process improvement in Blue Fountain solutions were considered, accommodating the exceptional challenges thrown up by the Nigerian business terrain. As a result of the steps taken to evaluate the company, some findings that are unique to the business environment are presented in this paper. Although these findings are unique to Blue Fountain solutions in many regards, it is also obvious that companies operating in developing countries, with a desire to transition from brick-and-mortar to electronic operations might benefit from some of the solutions proffered in this work.

Keywords: Process Improvement, Process redesign, change management, search engine optimization, database, process engineering, decision support system, Blue Fountain Solution, Business in Nigeria, intelligent system, data warehouse, Customer relationship management.

INTRODUCTION

The increasing demand for better service by customers often translates into the need for improving the speed at which business transactions are carried out, and an optimization of the level of accuracy in business transactions.

Organizations are pressed to deliver products and services within stricter timelines resulting in the need for an efficient work process that will make products and services available to clients within agreed time frame and quality (Lindsay et. al, 2003).

(Grigori et al, 2001) points out that although technological advancements have helped businesses transform bottle necks within their systems into seamless processes, the level of Social, technological and physical infrastructure available from place to place coupled with general appreciation and acceptance of technology by customers of organizations plays an important role in the decision of organizations to adopt improvements and the methods for implementing the change.

The level of technological advancement of other organizations i.e. (business partners and associates) also affects the decisions that relates to adoption of technology within a business process.

1.2 Overview of Blue Fountain Solution Nigeria:

This section describes the organization considered for this project. It gives a brief insight into the company's existence and its present mode of operation.

Blue fountain Solution is a small scale business which commenced its operations in 2009. It was set up to help the indigenes of Nigeria breach the gap of purchasing goods and items from companies in Europe and America.

This organization was born out of the frustration experienced by Nigerians trying to buy items on websites like EBay, Amazon, Gum tree, etc. At the onset, blue fountain solution only took responsibility for online order placements, but has since grown into taking responsibility for local deliveries.

The company has grown from servicing 864 orders in its first year to servicing 21,000 orders within the first six months of its present financial year triggering its error ratio and cost of labour as the orders have to be placed manually. Customers would check up an item online, call the office to give specification of the items they need, make payments into the company's bank account and are contacted by the company when orders have been confirmed.

The growing patronage and complains by clients about mistakes in delivery has necessitated an improvement in the order processing, payments and delivery system. This research suggests the adoption of a fully functional Ecommerce system which incorporates a website that can enable its customers log on, place their orders, make payments and track the delivery of items ordered as a solution to the challenge experienced by Blue Fountain Solutions Nigeria.

1.3 The Need for Business Process Improvement:

This Section describes the changes that business process improvement can introduce to an organisation's setup and why this is required by Blue fountain Solutions Nigeria.

Business Process Improvement refers to restructuring the way an organisation carries out its day to day activities. Often businesses require process improvement to remain effective with their transactions. Reduction of cost, sustenance of quality etc. are some of the results of embarking on Business Process Improvement.

1.4 The Aim of Report:

This section hints about why this report has been prepared and what it satisfies as well how it has been achieved.

The aim of this report is to provide Blue Fountain Solution with a template document that reviews its present mode of operation, and can be adopted in the implementation of electronic commerce system to improve its services to its customers. This has been achieved by reviewing the idea of Business process improvement, identifying the advantages and disadvantages of E-commerce, considering Key Ideas when implementing Electronic commerce, Researching on these Ideas with regards to Blue Fountain Solutions and Suggestion of improvement based on the ideas expressed.

1.5 Objectives

- 1) To carry out a comprehensive review on the existing literature regarding business process engineering.
- 2) To carry out a critical evaluation of the existing business strategy adopted by Blue Fountain Solution Nigeria.
- 3) To identify ways of improving the Business process.
- 4) To suggest ways of improving order processing and delivery.
- 5) To analyze the positives and negatives of improvement that has been introduced.
- 6) To critically evaluate the project.
- 7) To write a dissertation.

1.6 Key Questions:

This section shows some of the questions considered, and ideas that underpins this research.

- What is Business Process Improvement?
- Why do we need Business Process Improvement?
- How can Business Process Improvement be effectively carried out in small businesses?
- What is Electronic Commerce?
- Is there a relationship between Ecommerce and Business Process Improvement?
- Will the adoption of Ecommerce Benefit Blue fountain Solution?
- What will be required for the implementation of Ecommerce in Blue Fountain Solutions Nigeria?

1.7 Dissertation Layout:

1.8 Dissertation Outline:

Seven chapters constitute the dissertation and express the following Ideas:

Chapter 1: Introduction; this throws light on the background of Blue Fountain Solution Nigeria, its operations and business pattern as well as key question

underpinning this research, the aim of the Research, the objectives of this research etc.

Chapter 2: Literature Review; this chapter presents critically considered perspective of existing Academic literature in the area of business process improvement, with a view of establishing relevance to present practices in this field. It also sheds light on Electronic Commerce, and touches on the use of electronic commerce for business process improvement. This chapter also presents points that are important for successful implementation of Ecommerce.

Chapter 3: Methodology; this chapter basically describes the procedures, techniques and methods that have been undertaken in the collection of data and steps taken to analyse this data.

Chapter 4: Result Presentation and Findings; here the result obtained from the previous chapter is presented and discussed with regards to the ideas expressed in the literature review.

Chapter 5: Recommendation; this chapter presents a suggestions on how improvements can be made.

Chapter 6: Evaluation; this chapter considers the evaluation of the entire project by the student. It addresses the success of the project by considering important areas such as the requirement of the client, feedback from the client, project objectives, and how the project was controlled in spite of the challenges encountered during the course of this project.

Chapter 7: Conclusion; this chapter presents a summation of all ideas expressed in this work.

1.9 Sources Data:

Primary sources:

- Interviews with CEO of Blue Fountain Solutions Nigeria.
- Data and Information from Company documents.
- Data and information from Company Website.
- Questionnaires.

Secondary Sources:

- Text books.
- Journals.
- Magazines.
- Online publications and articles.
- Academic literatures.

1.10 Outcome:

This dissertation presents a comprehensive report that points out some flaws and Opportunity in the present business process maintained by Blue Fountain Solutions Nigeria, and present suggestions on how improvements can be made. This is expected to help the company in adopting Electronic Commerce as a way of controlling its cost of labour and addressing

issues experienced in order processing, and payments by its customers.

Chapter 2:

Literature Review

Business Process Improvement

2.1 Introduction:

The pressure on organizations to meet service level agreements produces a high demand for efficiency of processes generating output for customers.

Although the term business process improvement has been commonly used to express mechanical, operational and communication line changes in a business setup for some decades, its connection with electronic commerce can be traced to the 1990's when the internet and transactions over the web began to evolve (Bhatt and Troutt, 2005).

Companies have adopted Electronic Commerce as a way of advancing their business and it is fast becoming a criterion for businesses to remain profitable considering the societal use of the internet.

This chapter takes a critical evaluation of the present academic literature regarding business process improvement and electronic commerce.

The first part of the chapter describes the concept of Business process, the history of process improvement, the need for business process improvement and strategic way organizations implement Business Process Improvement.

The second part focuses on Electronic Commerce, the challenges of adopting E-commerce in a developing society. It also discusses the strategic role of E-commerce in organizations and the contributions of E-commerce to Business Process Improvement. This section is slightly tilted towards the challenges associated with the adoption of electronic commerce by organizations as a way of ensuring that the challenge of adopting e-commerce is completely understood.

The chapter is concluded by raising some points on the potential impact of electronic commerce on Blue Fountain Solution based on the points comprehensively synthesized from relevant literature regarding the execution of Process improvement using Electronic Commerce.

2.2 The Concept of Business Process:

Business process can be considered as a series of interlinked business tasks that rationally combine to convert an input into a desired output, and is usually of recurrent nature with defined start and end points. (Lindsay et al, 2003) puts it that a process is a group of

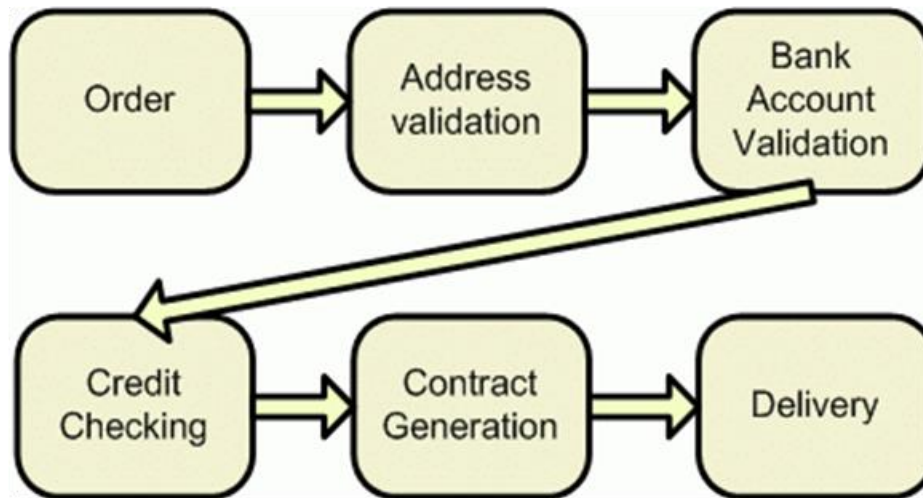


Figure (1) Business Process Diagram.

in-house activities carried out to meet customer satisfaction.

A process consists of an input, interconnected activities which refines the input, and an output that is produced. An example of a simple Ordering process is shown in figure 2.1, the order shows the input to a business process, Address validation, Bank Account validation, Credit checking, and Contract Generation are processes that transposes the order into a delivered item which is the output.

Building on that, a Business process improvement can be defined as making changes to the way an organisation conducts a set of its activities in lieu of producing better quality, quantity, cost reduction or service (Lindsay et. al, 2003). This point out that process improvement can be viewed as making changes to activities that lie within a process with the aim of generating the desired result from the inputs injected into the process to satisfy the customer.

Although (Zellner, 2011) sees it as an approach aimed at providing internal and external clients with outputs by increasing the efficiency and effectiveness of processes that generates these outputs, Business process improvement, Business process Re-engineering and Business process Management are common terms used in the light of making changes to a process and these processes have closely interwoven implication (Adesola and Baines, 2005).

Stretching this further, (Moghdeb et al., 2011) explains that these terms are used in relation to improvements in a Business set up, and they comprise activities which lie within complete organizational overhauling, restructuring, and continuous/ incremental changes of processes. In the same vein, it can be said that there is a common denominator, which is the idea of processes, and making changes to obtain a better

performance and design (Xin 2009). On this premise, these terms will be used in relation to making changes in an organization with the aim of affecting output positively.

2.3 History of Process Improvement:

The quest for process improvement in an organisation can be traced back to the industrial age, when skills needed to be specialized to improve production output. This made specialized activities repetitive and defined. As time went by, organizations needed to maintain competitive edge and this introduced improvements to different areas of organizational processes. Improvements made to different areas of organizational processes were aimed at producing more which implied (Quantity), cheaper production (Cost), improved products (quality), Producing in quicker time (Lead time) offering More (Service) (Lindsay et al, 2003).

Some of the process improvements made over time have been breaking activities down from linear progression Concept; whereby raw material inputs are taken from one stage to another serially until it becomes an output, to splitting activities up and making them run concurrently, with tasks best suited for automation being carried out by machines and other tasks suitable for human execution being carried out by Humans.

Some of the tools used conventionally for process improvements conventionally includes Total Quality Management model, Just in Time model, Six Sigma model, Lean 5S model, etc. (Moghdeb et al., 2011).

2.4 The Need for Business Process Improvement:

The need for improvement in almost every area of life cannot be over emphasized. Personally, growing up in

Pre-Registration Process Kemptonville District Hospital

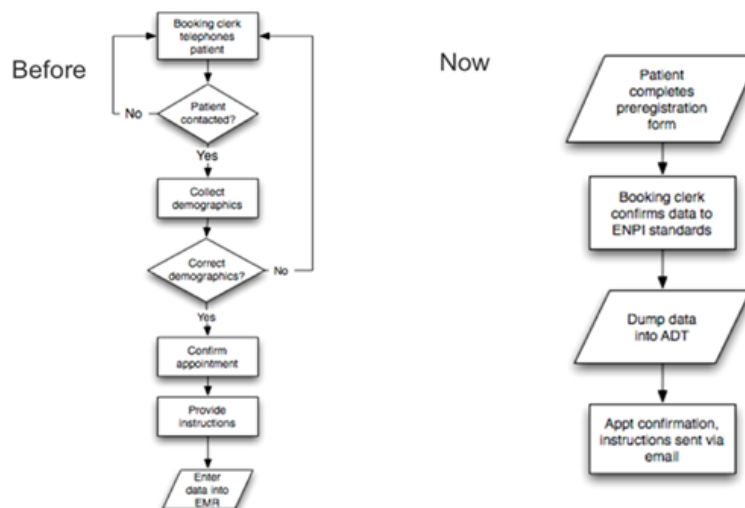


Figure 2 Process Redesign, adapted from (Adapted from Google images)

Nigeria in the mid 1990's, telecommunication was considered a luxury by many owing to its high cost and unaffordability. Family members and close friends had to go to offices down town to receive important messages defying confidentiality. People financially buoyant enough to afford a phone line had to wait for years as priority was given to Businesses and Government offices.

Nowadays, telecommunication by phone is not a luxury; large members of the public have Mobile phones. Continuous improvements made to telecommunication process, i.e. introducing mobile communication technology, can arguably be said to have mediated the difficulty people experienced in maintaining communication. In the same regard, (Grigori et al, 2001), explains that process management technologies, automation, design are used in regular business setup to bring about improvements.

Another reason why Business Process Improvement is needed in establishments is that it helps in restructuring major business programmes. This is often by introducing flexibility that makes processes more effective and efficient. This translates into a process being able to prevent occurrence of errors, creation of continuous improvement to standards regulating effectiveness and efficiency, therefore creating room for the root causes of problems in organisations to be tackled. This often helps organisations reduce the cost incurred from reworks and scrap (Bhatt and Troutt, 2005).

In addition, Business Process Improvement helps organizations to execute its processes effectively thus providing goods and services at a predictable level of quality and with high consistency. (Fernandez et al. 2009) points out that Reduction in errors, reduction in cost, and increase in productivity are some of the benefits that Business Process Improvement introduces to an organization.

The effect of Business Process Improvement spans through production processes and administrative processes. It helps organizations to manage its transactions in a rapid and reliable way. It also helps organizations sustain a level of consistency by providing a platform for implementing new ideas thus maintaining competitiveness with contemporaries while retaining its customers and attracting prospective business partners (Grigori et al., 2001).

2.5 Types of Business Process Improvement:

Although some literature consider types of Business Process Improvement from the perspective of office processes and production line processes (Lindsay et al., 2003; Shrahzad and Zdravkovic, 2010; Bhatt and Troutt, 2005), for the purpose of this research, Business Process Improvement will be briefly considered from two strategic perspectives namely; continuous process improvements, and instantaneous process improvements.

2.5.1 Instantaneous /Radical Process Improvement:

Sometimes, business processes require radical/instant adjustments to set its objectives back on track. Changes in policies from governing authorities and specific exceptions within its internal setup could dictate a significant effect to daily execution of processes within an organization. This often calls for quick fix measure to address the challenges within the process and maintain commitment to key stakeholders of the process (Zellner, 2011).

The use of process improvement in health care environment for controlling occurrence of error can be seen in (Shrahzad and Zdravkovic, 2010), and they draw attention to improved standard of service delivery to patients without prior appointment as its benefit, as well as helping to benchmark its best practices while radically improving the capability of its service delivery process. It also points out that this often occurs when organizations adopt a new technology for its processes.

It can be argued that instantaneous process improvement is often a drastic measure put up in response to an existing condition within a process. This could be very helpful to plug holes and leaches within a business process especially where deadlines and service level agreement have to be maintained with minimum time. This is applicable to some processes of Blue fountain Solution as the organization contemplates the adoption of electronic commerce for its operations.

2.5.2 Continuous Process Improvement:

In contrast to radical improvement, incremental or continuous improvement to business processes is often considered as an opportunity for organisations to gradually implement small changes that ensure stability of processes and often culminate into competitive advantages in their operations. (Bhatt and Troutt, 2005) mention that it gives organizations opportunity to reset its process standards in comparison to its competitors. This often requires constant monitoring of process metrics and analysis to identify areas that require improvements, but helps organizations achieve stability and consistency in the outputs of its processes. For blue fountain solution to sustain the edge that will be created by the adoption of electronic commerce, it is important for continuous process improvements to be employed.

2.5.3 Steps for Business Process Improvement

In executing process improvements, some action that needs to be taken by Blue Fountain Solution in order to arrive at planned outcome has been identified by (Bhatt and Troutt, 2005) as:

- ❖ Identify the processes that require improvement.

- ❖ Building a process improvement team.
- ❖ Creating a mapped out plan.
- ❖ Analytically redesigning the processes
- ❖ Conducting a careful implementation of the redesign.
- ❖ Carryout Evaluation.

Adesola and Baines, (2006), re-establish that these steps are important they guide organizations to successful implementation of change.

Process Reengineering:

Process re-engineering often refers to radically restructuring of processes to improve the productivity of a business. In some cases it requires rearrangement of activities within processes, while in other cases it could simply mean addition of new activities or removal of some activities (Zairi and sinclair).

Information technology is often an important tool for enacting process reengineering, however some reengineering improvement are carried out successfully without process improvement.

This is important for Blue Fountain Solution considering the need to improve the productivity of the organization. An example of process reengineering is shown in the figure below

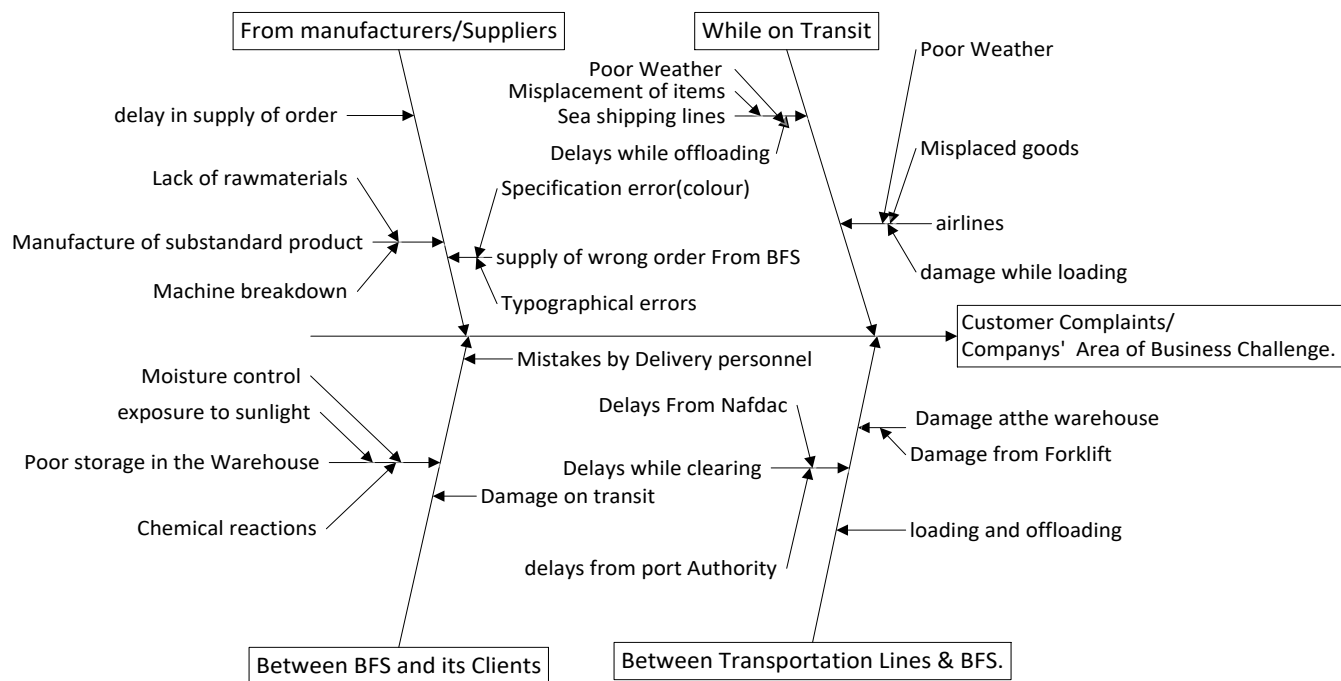
2.6 The Concept of E-commerce:

In recent times, the world has witnessed establishments transform the way they conduct their transactions. Buying and selling is now conducted over the web. Since 1995, the spread of electronic commerce throughout the world has witnessed huge numerical growth with potentials of even greater increase (Ghasemzadeh and Sahafi, 2003).

Considering the fact that every company is set out to achieve success, it is expedient that light is shed on the meaning of E-commerce. E-commerce can be defined as the exchange of goods, services and financial values over the internet and established electronic networks (Kievani et al. 2011).

From initial consultation, the transactions of Blue Fountain Solution Nigeria can be classified into three categories of Electronic Commerce namely: Business to Business transactions (B2B), Business to Consumer transactions (B2C), and Consumer to Consumer transactions (C2C).

(Dey Et al. (2009); Kievani et al. (2011); Ray, (2011)), explains that Business to Business transaction (B2B) refers to transactions that transpire between one Business establishment and another Business establishment who is also in need of the service rendered. Here this refers to the transactions between Blue fountain Solution and the companies that supplies its orders such as Amazon, Harolds Department, Debinhams etc.



Brainstormed Cause and effect diagram relating source of client complaints

Figure (3):

Business to Consumers (B2C) refers to transactions between Businesses and its customers who consume the products or services that are rendered. An example of this is transactions between Blue fountain solution and its customers who use the products being sold. Consumer to Consumer refers to transactions between a consumer of a product (Client) and another Consumer of a product. This is exemplified in Blue fountain Solution where the company links customers who wants to buy a product and another customer who wants to sell for a small token on each purchase.

2.6.2 E-commerce as Business Process Improvement Strategy:

Various organizations employ different strategy to improve its business transaction process. As established earlier, most businesses comprise of several internal processes that combine to produce the product or service that the organization renders. (Zellner, 2011) posit that employing a new technology or making adjustments to existing technology often produces a significant change in the output of the process. Yu-Jun (2010) explains that Technology acts as an amplifier of efficiency within a process. This brings to mind that E-commerce as a form of Technology can be used as the strategic element to

redirect the scope and focus of organizational processes towards producing an edge for the organization. This is often by reconfiguring available resources within the business environment to meet the needs of the market and to satisfy the expectation of stakeholders (Barkley et al, 2007).

Various processes within organizations can be strategically reinforced by the adoption of electronic commerce. Considering this from the perspective of Blue Fountain Solution, processes such as the ordering process, payment process, delivery process, etc. can be strengthened by the adoption of E-commerce. Magutu et al (2009), also extends on this point by mentioning that the evolution of electronic commerce has brought remarkable improvement to the way business is conducted. Electronic commerce has further encouraged the development of support applications such as Middleware's, backend support applications, and other computer aided programs that help organizations improve their efficiency.

2.6.3 Some Commonly Used Electronic Commerce Technology:

There are several electronic commerce technologies and tools employed by organizations when improving business process. (Barkley et al., 2007: Magutu et al.,

2009) explains that these comprise of applications and structures developed to improve various areas of business transactions, and they can be classified as: data and storage related applications, encapsulation/reasoning and decision support systems, information integration and distribution systems, process support applications.

- **Databases:** these are data storage related applications which is useful when large amount of structured data requires managing. Databases are often used when there is need for data to be consistent and the maintenance is critical to achieving results.
- **Data warehousing:** this is another storage oriented application which is similar to Databases. A data warehouse is useful when vital information can be deduced from examining historic data. This implies the examining of data containing transaction history to derive trends and patterns that can contribute aid decision making processes.
- **Intelligent Systems:** these can be seen as Encapsulation/ reasoning and decision support oriented systems, as well as process support oriented systems. They are very useful where tasks that require quick reasoning need automation and it is often used to accomplish sub functions. They aid quick decision making.
- **Decision Support System:** these systems are often designed by capturing the intelligence required to execute specific task. Help to achieve better decision making by using rules drawn from primed processes of historic data to deal with specific conditions.
- **Document Management System:** these applications are very useful where large amount of files commonly accessed by a many people requires thoughtful management. They often help to provide multiple accesses to documents without alterations and modifications form one party having adverse effect on some group of persons accessing the document.
- **Groupware support systems:** these systems are important when there is collaboration and cooperative interaction between teams that need to carefully manage processes. Groupware systems support management of process requirements such as workflow, messaging document management.
- **Customer Relationship Management:** this is important to an organizational process when interacting with customers is Prime. It often helps people with less qualification to effectively carry out a duty by providing instant recall of a customer's transaction history as well as information to assist users. It is often used by call centres where there is a central system and several persons executing the same task.

2.7.0 The Advantages of Adopting Ecommerce:

Reassessing the point expressed earlier, that several Companies view Business process improvement as

opportunity to implement competitive edge in their operations (Amer et al, 2010), E-commerce provides a competitive edge for businesses over competitors who have no adopted it because customers often find it cheaper and convenient to shop online.

Organizations have embraced the use of electronic transactions over the web and this has substantially impacted its processes. As a result, E-commerce is now commonly perceived as a viable tool for harnessing optimum efficiency and effectiveness in existing businesses (Xin, 2009). Some reasons why Electronic commerce should be adopted have been highlighted in several literatures (Bhatt and Troutt, 2005; Kaynak et al, 2005; Amer et al, 2010), however some stand out as direct positives for Blue Fountain Solution Nigeria and they highlighted below:

- (1) Round the clock Presence:
- (2) Globalized Location and Reach
- (3) Create market for more Products and services
- (4) Reduced Cost of Running the Business
- (5) Easier Means of Sourcing /Convenient Shopping
- (6) Improved Customer Interaction.

2.7.1 Round The Clock Service:

The adoption of E-commerce can present Blue Fountain Solution with the opportunity to service orders and transact business 24hours, round the clock. Customers can access the Company services and products during unofficial hours thus leading to increase in patronage from its clients. Although from initial consultation, increasing sales might not be an immediate problem for Blue Fountain Solution; most companies will fancy that as a positive challenge and E-commerce present the capability to handle it (Amer et al, 2010). Since Blue Fountain Solution experiences challenges coping with Patronage from its clients and E-commerce system can help to give its clients same access to company services at any time, it might be worthwhile to adopt E-commerce as a way of dealing with this challenge. This could give some clients opportunity to access services when general patronage is low (off peak periods) thus improving its customer satisfaction.

2.7.2 Global Location and Reach:

Another advantage that E-commerce will present to Blue Fountain Solution is positioning the company for global access. People From other cities and Countries in Africa can purchase or transact business with Blue Fountain Solution. This is further strengthened by Mobile Technology i.e. provides people with ability to buy item online from different locations using mobile devices (Wrigley and Currah, 2006).

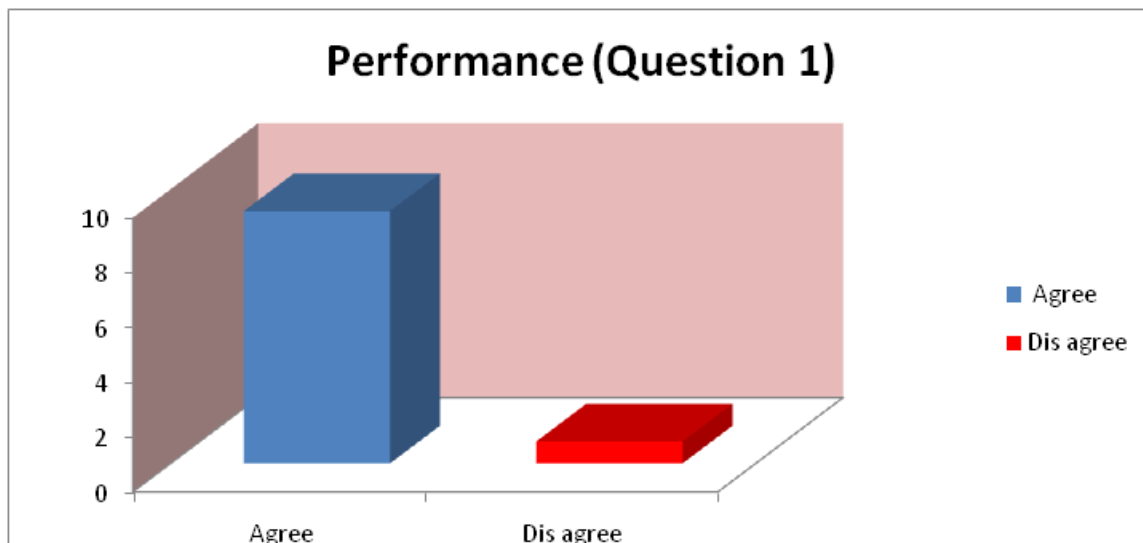


Fig (4): showing Response to Question 1

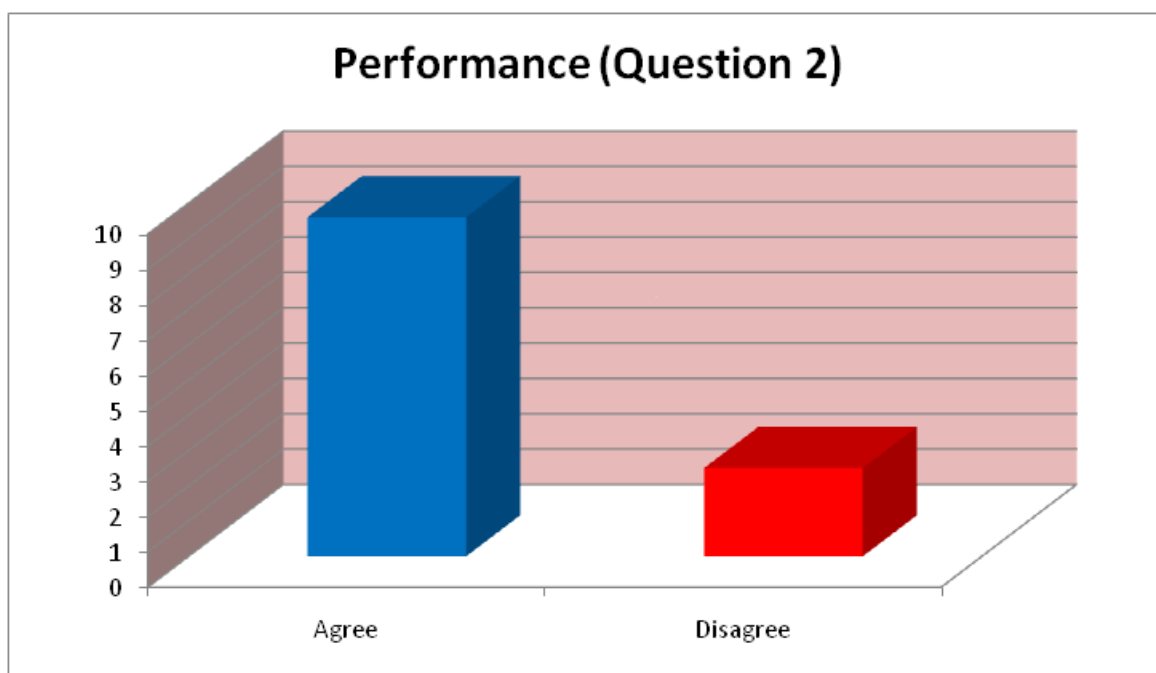


Fig (5): Showing response to question 2

2.7.3 Create Market For More Products and Services:

In addition to the Benefits already mentioned the Web offers a platform for every product and service to be patronized as such E-commerce can make potential customers more aware of products, and draw the attention of clients to fringe Services offered by Blue Fountain Solution Such as shipping of local food items from Nigeria to countries overseas (Bhatt and Troutt, 2005).

2.7.4 Reduced Business Operation Cost:

The implementation of Electronic commerce if effectively done can have a great impact on the cost of running the business. Blue Fountain Solution can incorporate parallel web crawler services and effectively set up automated system as this will reduce its cost of documentation. The cost of monitoring processes will also be greatly reduced by the automated systems as it

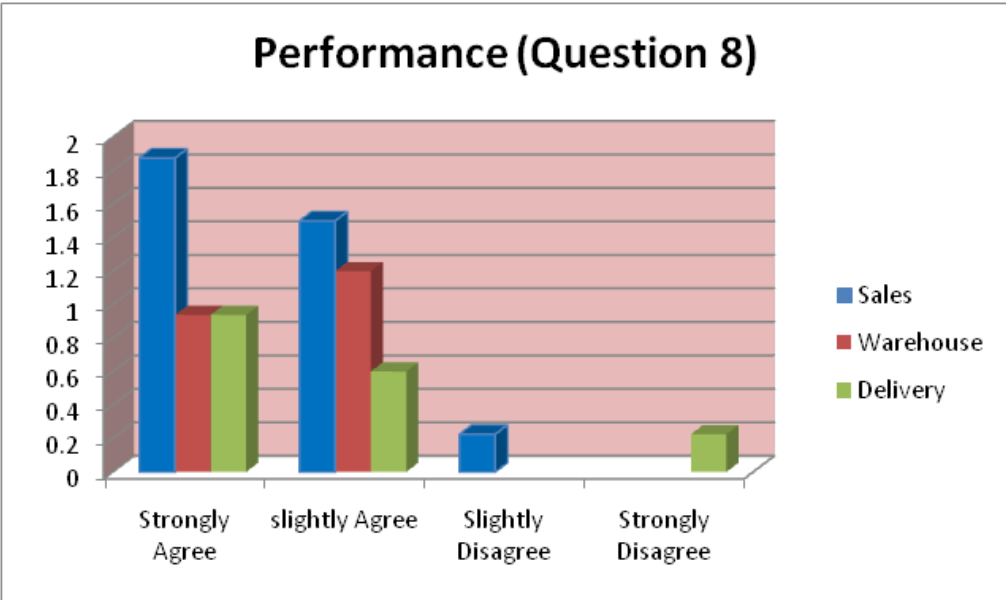


Fig (6): Showing response to Question 8

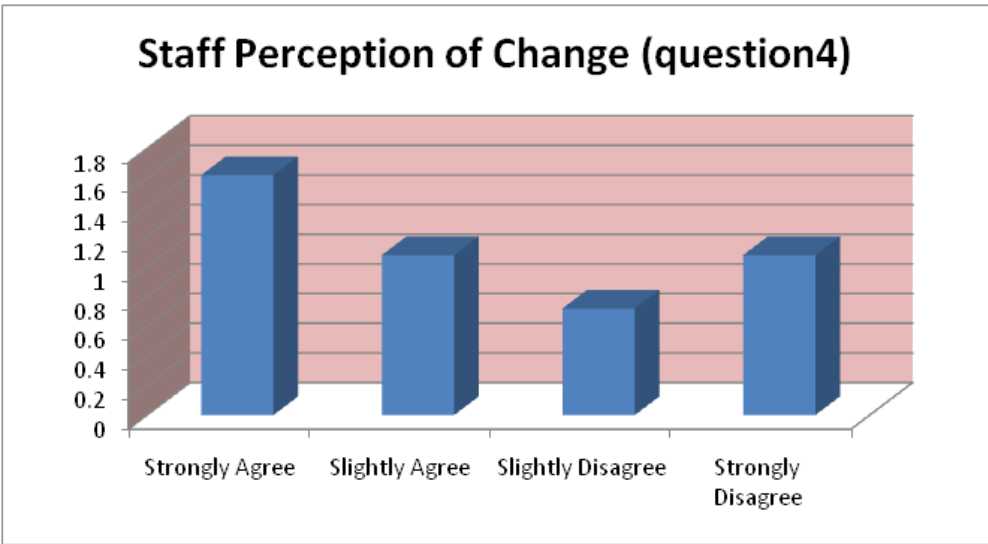


Fig (7): Showing response to question 3

keeps track of transactions and alerts when there is an exception. (Xin 2009)

2.7.5 Easier Means of Sourcing Products/ Convenient Shopping:

Electronic Commerce provides Blue Fountain Solution with the opportunity to reduce the hectic process of sourcing products from other companies by linking the back end of its website with the websites of its supplier. An example is the Amazon A store facility, this gives its clients the opportunity of viewing items available on Amazon website by searching through Blue Fountain Solution's Catalogues. This makes customers able to

compare prices, Duration of delivery etc. generating convenience for clients (Kaymak et al, 2005).

2.7. 6 Improved Customer Interactions and Analysis:

E-commerce also helps business to maintain interactions and communication with its clients. Organizations can benefit from creating interactive platforms about new products, improved deals and offers by creating links on social Networking sites, updating blogs as well as creating RSS Feeds for clients. This presents the business with opportunity to get Feedback from clients through surveys and

responses, analysis can also be conducted easily where E-commerce is properly set up (Gunasekran et al, 2002).

Although these positives have been mentioned, a few issues still pose as grey areas of adopting E-commerce that needs to be x-rayed so we can become acquainted with the challenges that accompany the adoption of electronic commerce. Some of the issues expressed below are of global concern while some are most prominent in countries with under developed Economy. Nigeria is one of the countries classified by the United Nations as one of the countries with low development, as such these considerations maybe worthwhile (McGillivray, 2006).

It is important to consider these challenges given the economic, social, and infrastructural challenges of the country.

2.8.0 General Challenges of Adopting E-commerce

There are several challenges associated with the adoption of electronic commerce in an organization. Some of these challenges stem from within the organization, while others are a product of the primary environment in which business is conducted. These challenges are considered from both perspectives.

2.8.1 Security/Trust Challenges in E-commerce:

The first consideration as regards the challenges of electronic commerce in developing nations is the issue of Security over the web and how it trickles down to affect the trust of the customers or users. While satisfying a customer's need might be important to business success, it is also essential that customers develop a firm belief in the transaction process, as trust in a process could lead to transaction of repeat business.

Security risk can be viewed from three perspectives which are often prominent in B2C area of transaction (Kaynak et al, 2005), and they are: Client Server risk, Transactional risk and data transfer risk, Virus attack risk. Here Client server risk refers to the possibility of anything going wrong around the management of the server. Transactional risk entails the

Wang and Lin, (2008) points out that Trust can be interpreted as the ability, willingness, determination and probability that a party will act in the interest of other parties involved in a transaction. This elicits the point that customers generally will need to believe in the new system being introduced by the organization before adopting it else it can scare customers away to other competitors.

Arnett et al. (2009) explain that slippage of important information released by people to organizations as a result of security lapses can be considered a major challenge to the use of the web world over Stretching

this further, they bring to attention that although organizations often setup security structures to prevent loss of information the effort is sometimes not enough to prevent data drop off. Some organizations also breach privacy protection policies meant to cover individuals and this in turn induce doubt in the minds of the public about online transactions. . This might generate hesitation in the minds of customers of blue fountain solutions as many people normally do not want information provided in privacy to be accessed publicly. The second Issue that militates against trust and general acceptance of electronic commerce is the concern arising from Cyber-crimes. Ray. (2011) records that the rate of Cyber-crime in developing nations is alarming to users of the web; and that huge fund are often lost by individuals and organizations as a result of hacking and other related activities. This brings to mind that beyond the individual clients and customers, organizations like Blue Fountain Solution, attempting to adopt electronic commerce maintain some reservation about the vulnerability that this change can introduce to the organizational process.

Trust is developed as transaction and interactions ensue between organizations and their clients (Liao and Wang 2010). With the website as the platform for interactions between clients and organizations, initial trust is built from the contents of websites as well as its usability. Clients base their judgement on the information provided on the websites, with colour, language errors, style and how comprehensive information is as factors that affect the perception of user.

Although these trust issue have been presented by some authors as a factor affecting developing nations (Wang and Lin, 2008; Ray, 2011), it can be seen that these issues exist in many parts of the world (Arnett et al. 2009). This could be an indication that although the degree to which it exist in different countries may vary, adoption of Electronic commerce by Blue fountain solution might prove to be a challenging task but it has a good chance of success.

2.8.2 Cultural Challenge:

The role of Social and cultural issues in successful implementation of E-commerce is important. In other to achieve effective implementation of electronic commerce for Blue Fountain Solution, it is crucial for social issues to be taken into account. This is because the beliefs, norms and cultural values of people vary from place to place, and often businesses are affected by how this is managed. Wrigley and Currah (2006) explain that often, small businesses model their operation to accommodate some cultural values which could be generic or local. These generic ideas often form best practices providing them a competitive advantage over competitors. Some accepted practices

Table (1) SWOT Analysis Adapted from Robert (2004)

	Strength	Weakness
Opportunity	Strength + Opportunity: These are areas to be fully explored with concentrated efforts. Prime Focus area.	Weakness + Opportunity: Area to be managed and avoided.
Threats	Strength + Threats: Areas to be explored with caution where there is extra resource from prime focus area.	Weakness + Threats: Area to be prevented with concentrated effort.

Table (2): Showing analysis of Questionnaire

Strength <ul style="list-style-type: none"> • Skilled work force • Low Competition • High Patronage 	Weakness <ul style="list-style-type: none"> • Poor internal communication • Lack of system support for Business operation • Increasing client Dissatisfaction • Spiralling cost of operating Business • Lack of guaranteed client service structure.
Opportunity <ul style="list-style-type: none"> • Build an E-commerce System • Explore new products and markets. • Develop patents for ideas and generic innovations. 	Threats <ul style="list-style-type: none"> • Change in customer preference • Client Migration • Change in Government regulations.

in an area might not be acceptable in other areas and they might exist in forms that cannot be replicated using electronic commerce. Thus making it difficult to replicate

Hesitation to embrace transactions online might also be on the ground of culture. An example of social or cultural practise that can conjure a subconscious hesitation is the preference of face to face transaction by Chinese people as it stems from their strong communal way of living (Xu et al, 2011). This is explained by (Kshetri, 2007) to have impact on the intrinsic values of the people because face to face interactions help in maintaining social ties, and improves bonds between people. People often go out to buy knowing that it presents them an opportunity to have a word with an old friend or family member. Since buying online limits this, it becomes difficult to measure how people will accept the use of electronic commerce. Hampel and kwong (2011) presents a similar idea explaining that electronic marketing is currently comprised of a structure that stems from western context, and this is influenced by developed physical infrastructure, advanced culture in western countries. In addition they iterate that cross multilingual issues can breed challenges to the adoption of E-commerce etc.

Although, if this is Considered from the perspective of social and cultural background around Blue fountain Solutions' area of operation, this might pose some challenge because most off the shelf Software and Applications have not been developed with specific consideration of these points afore mentioned, but a

way out can be modifying Software and applications to suit business operation.

Modelling an organization that provides its services in several communities and towns with various cultures might prove to be a difficult challenge. However some global organizations have predisposed templates for running their day to day activities but take the best practices from different communities, social groups and create localized platforms for modifications to be incorporated (Solderberg and Holden, 2002).

2.8.3 Cost and Financial Challenge:

Molla and Licker (2005) points out that cost of acquiring basic infrastructure for Electronic Commerce implementation is a major factor that affects the adoption of electronic commerce in developing countries. Kaynak et al, (2005) renders a closer explanation pointing that Small and medium scale organization are often bothered by the initial amount they require to setup electronic commerce, especially when they require a bespoke approach. This is of huge consideration in the implementation of electronic commerce for Blue fountain Solution Nigeria.

Four category of cost often incurred in the process of adopting electronic commerce that might be of significant consideration are identified (Kaynak et al, 2005; Molla and Licker, 2005), as:

- (1) The cost of connecting to the internet.
- (2) Cost of providing necessary Hardware
- (3) Cost of providing necessary Software

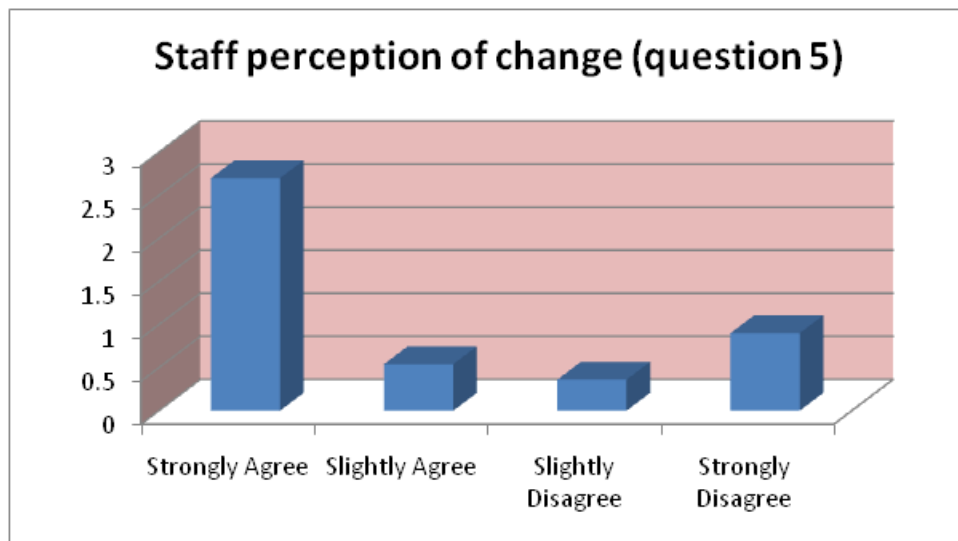


Fig (8): Showing response to question 4

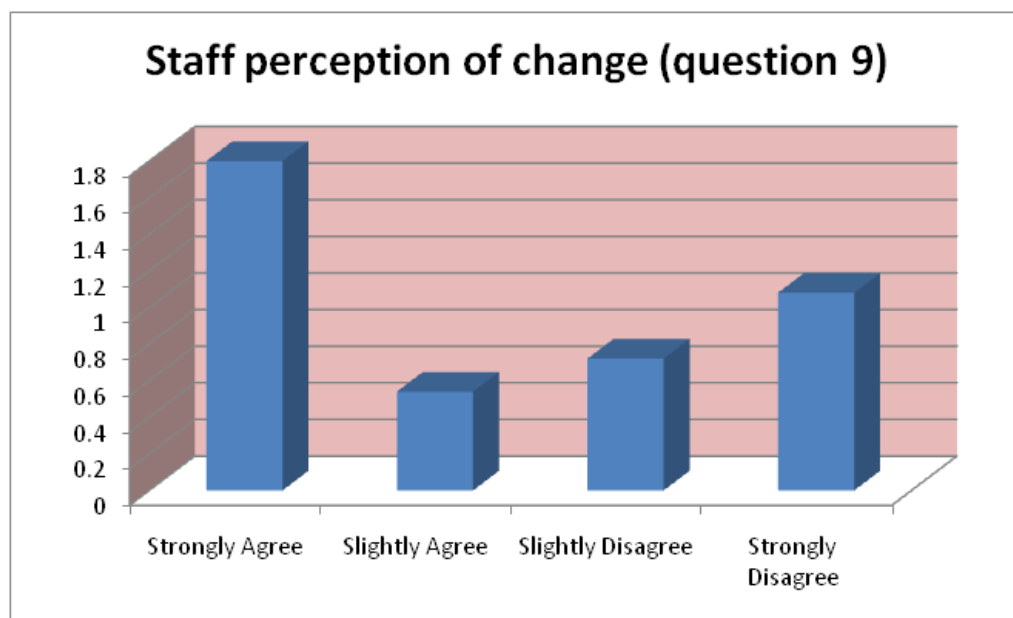


Fig (9): Showing response to Question 5

(4) Cost of setting up and maintaining the system. The cost of connecting the business to the internet is often not a mince meal for small and medium scale enterprises (SMEs) in developing nations, and this is a requirement for Blue Fountain Solution Nigeria as the company has a minor connection with very low connection speed.

The cost of providing hardware components required for implementing Electronic commerce in Blue Fountain Solution will comprise of the amount required for purchasing Personal Computers, hardware networking gadgets such as routers, etc. This is often important for SMEs as some SMEs just have a few computers to run

basic offline operation, and this will not be sufficient to support Electronic Commerce adoption.

Another cost to be accommodated is the cost of purchasing and subscribing for Software Applications needed to execute transactions online. Applications such as Documentation Management system, Enterprise Resource planning, Customer Relationship Management systems are often required to help organizations manage the execution of its transactions online.

Lastly, the cost of setting up and maintaining the system also needs to be accounted for. This will include

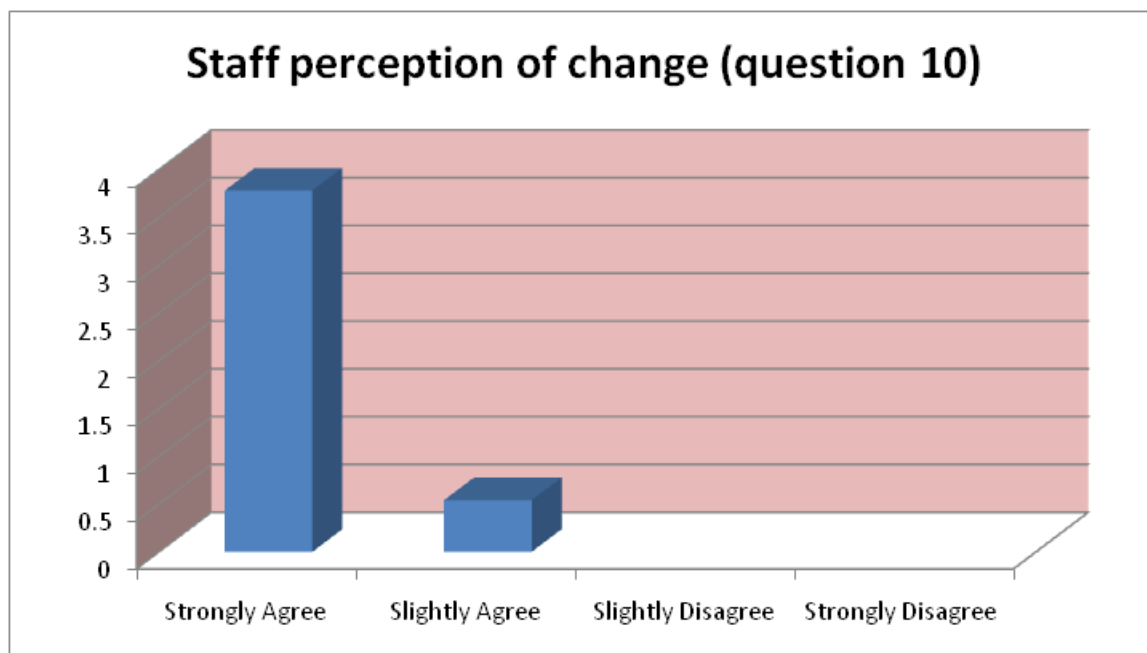


Fig (10): Showing Response to Survey question 9

cost incurred during installation of various applications and setting up required network as well as testing.

2.8.4 Legal Issues:

It is important for Blue Fountain Solution to implement its policies as a way of controlling and securing valued technological advancements (Gallagher et al. 2012). Dey et al. (2009) highlights some policy and legal issues related to enacting constituted rights as a challenge to the adoption of electronic commerce in developing countries.

This is further supported by (Xu et al, 2008), eliciting that there is a void, and ambiguity exists between the laws constituted to protect legitimate rights and interest of consumers and the execution of such laws in China. There is a high possibility of controversy in sales and service rendering. On one hand Customer might not be interested in transacting business online as they do not feel their satisfaction is guaranteed. On the other hand, it might be a challenge for Blue Fountain Solution Nigeria as limited Government Constituted laws to define its responsibilities in E-commerce transactions might expose the company to legal attacks.

It is also important to establish within the policy definite service level agreements and incorporate policies that make decision easy when service level agreements are breached. This is especially important when dealing with cross border transactions.

2.8.5 Infrastructural Challenge:

One of the basic infrastructures that electronic commerce thrives on is internet facility. This turns out to be a major challenge for organizations in developing nation when considering the adoption of electronic commerce. Xu et al. (2008) explains that insufficient access to the internet makes organization unable to adopt recent ideas that can propel their business to a new level of success.

In addition, it is important to mention that even where there is basic internet access, the speed/ size of the bandwidth generally available in most developing nations is often insufficient to support the implementation of Electronic Commerce (Ho et al, 2006). Taking this further, (Dey et al, 2009 & Ho et al, 2006) points out that other basic infrastructure such as telecommunication and other Information technology support functions is often not at optimum level to support massive improvement in electronic commerce. Chiemeké and Ewuekpae (2011), points out that a major infrastructural deficiency in Nigeria is inconsistency of electrical power and its effect ripples into every type of business process whether brick and mortal or fully functional electronic commerce.

2.8.6 Overview of Challenges:

Although several ideas have been expressed about the probable challenge that organizations might face in

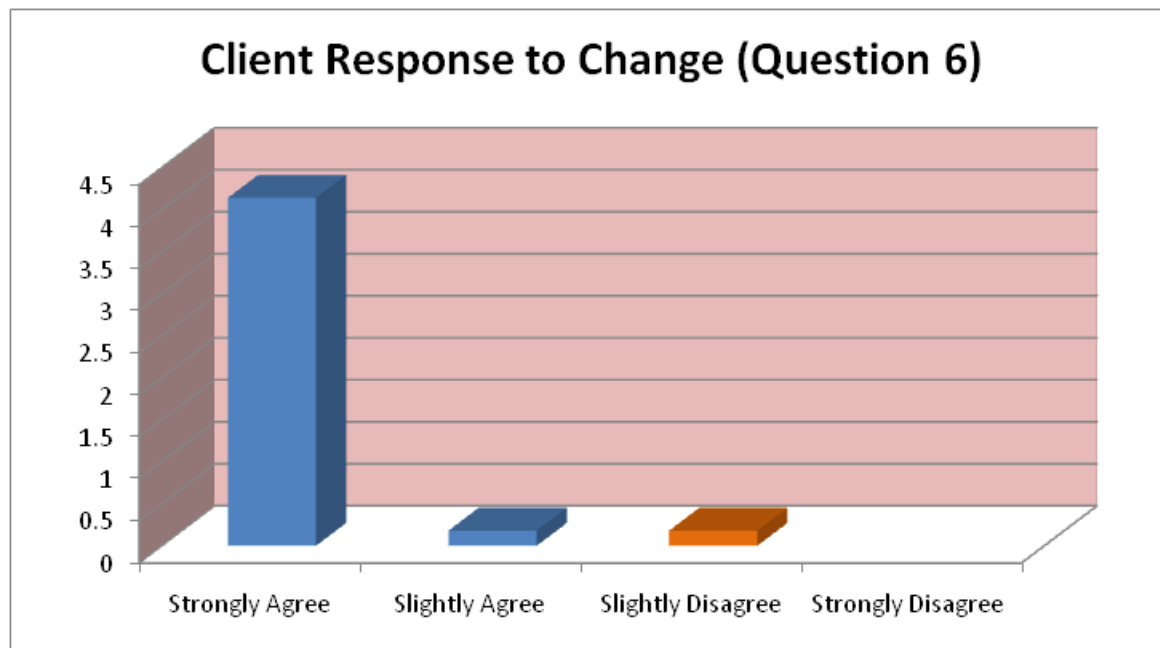


Fig (11): Showing Response to survey question 10

adopting electronic commerce, (Aghaunor and Fotoh, 2006) express that there are improvements in general adoption of technology in Nigeria and this is crucial to Blue Fountain Solution. They also mention that several telecommunication and information Technology servicing companies have sprung in Nigeria thus providing internet access and other technological support to individuals and organizations. This presents some infrastructural platform for Blue Fountain Solution to adopt Electronic Commerce.

The cost of fully adopting a complete Electronic commerce system is often humongous for Small and medium size enterprises as expressed by (Kaynak et al, 2005), as such most organizations employ an approach of gradually adopting electronic commerce by setting up systems which addresses areas where the company experiences challenges the most, before touching on other areas that can add more value to its processes.

2.9 Key Factors to Ecommerce Implementation

To successfully implement electronic commerce, it is important to first consider factors that can affect the outcome of the intended improvement. E-readiness, Change management and potential impact assessment have been identified as some of the factors important for implementing technology change in an organization (Barkley et al, 2007). However it is important to consider the organizations' present business process, and evaluate with techniques such as SWOT analysis

to identify advantages within the organizational process to be explored in the system design.

2.9.1 Current Business Process of Blue Fountain solutions Nigeria:

According to initial consultation, Blue Fountain Solution runs a business model that is quite unconventional. This is because its transactions with some of its suppliers are via electronic commerce, but most of its interactions with its clients are currently managed manually. Three main processes within the organization are the ordering process, Warehouse process and the delivery process.

The ordering process begins with a client putting a suggested order across in the office or via a telephone call, the client advisor then checks for the availability of items contained in the suggested order. The cost of items, cost of shipping, dates of delivery is confirmed and communicated back to the client. Payment is then made by the client either into the company's Account or at the company office with the details of payment passed across to the sales advisor who confirms the payment that has been made before documenting the order. The record of documented order is then passed across to the supervisor who authorizes supply of the items that has been ordered.

The warehouse process begins with the Warehouse supervisor receiving a list of order notes. The warehouse team then receives goods that have been ordered, and conduct all necessary checks such as

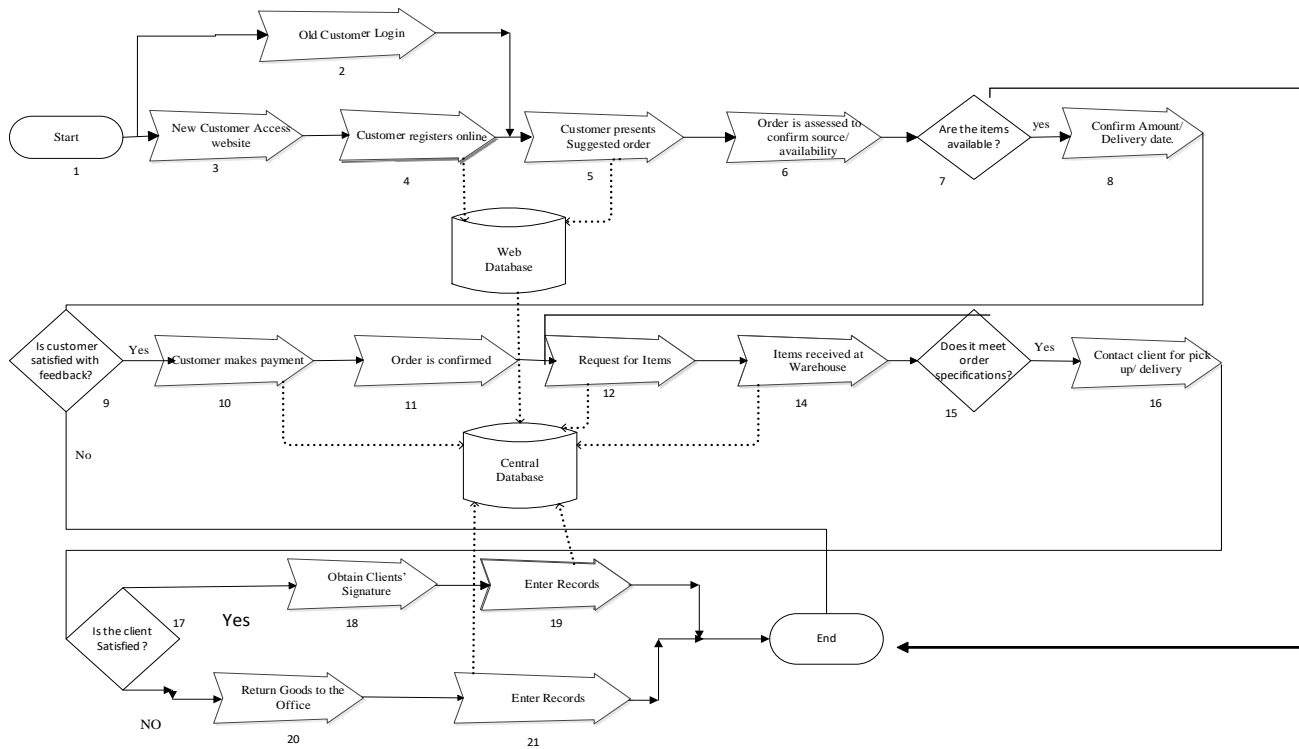


Fig (14): Process Flow Diagram

product quality, etc. where necessary. The team then takes stock of items received and temporarily store them until the delivery team is ready to distribute them to clients.

The delivery process begins with the delivery personnel picking up a list of ordered items to be delivered (delivery manifest) from the warehouse. The ordered items are then sorted according to the delivery manifest generated by the sales team. The items are then marked by the delivery personnel for easy identification. The items are then delivered to clients where they come for pick up, or loaded into the delivery vans and delivered to clients at their preferred pick up points. The time of pick up, the point of delivery and the signature of receiver is recorded. Feedback is also brought to the office and documented in the feedback forms.

2.9.2 Potential Impact of Ecommerce:

The adoption of E-commerce presents some positives to organizations, which will be useful to Blue Fountain solution in achieving its objectives.

The first advantage that Ecommerce can present over the present mode of business transaction is predefined decision making in different area of its business operations. Predefined intelligent systems can help support sales and delivery process of the organization in dealing with repeat business transactions thus

producing faster transaction processes and guaranteed quality of service to all its clients.

It will also help the organization reach out to prospective clients that live in cities across West Africa thus providing a platform for business expansion.

Another benefit that can be derived from the adoption of E-commerce is improved accuracy of transaction. Errors arising from documentation can be minimized thus helping the organization save financial losses incurred from retrieving goods.

The adoption of electronic commerce will also help the organization improve on the time it takes to complete a transaction. This will culminate into Blue fountain solution being able to process more transactions with fewer people thus reducing the overhead cost.

2.9.3 E-readiness:

For E-commerce to be effectively implemented in any organization, it is important to consider the level of E-readiness within that organization (Berthon, 2008). Readiness in an organization can be explained as the extent to which an organization is prepared to utilize information and communication technology and the benefits that accrue from it (Dada, 2006). Readiness is considered here in context of an organizations' preparedness to adopt E-commerce and engage in electronic transactions.

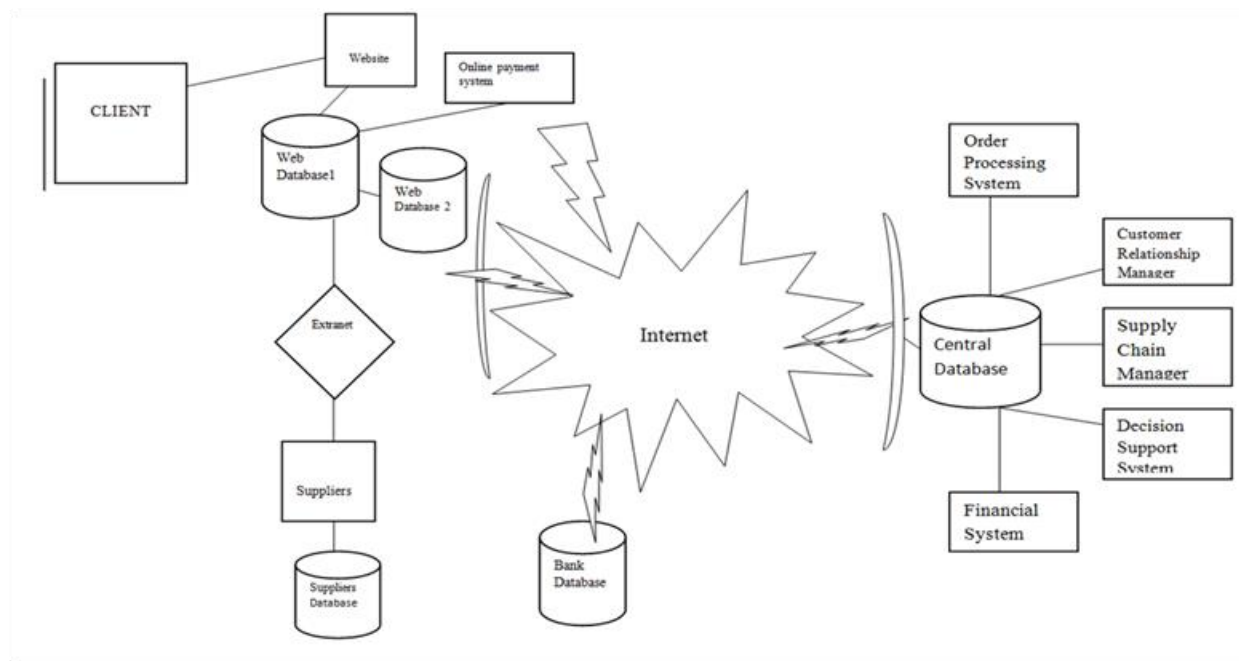


Fig 15: E-commerce System design

Tan et al, (2007) mentions that perceived organizational e-readiness and perceived environmental E-readiness is important to successful adoption of E-commerce. They explain that both external and Internal E-readiness is important for successful implementation of E-commerce, where external implies the market, government regulations etc. and internal implies within the company.

Considering these points from the perspective of Blue Fountain Solution, the market refers to the clients who purchase products through the company as such it might be of interest to assess the knowledge about Electronic commerce amongst staff of Blue Fountain Solution as well as, the reception of staff and clients towards the change that Ecommerce presents.

An assessment of readiness is important because it provides a quantifiable basis for evaluating an organizations situation and forms a platform for planning future improvements (dada, 2006).

Stretching this further, some of the things to be assessed are the level of infrastructure within the organization, the skill level of human resource to utilize the technology being provided, knowledge of the change to be introduced amongst people that will be affected by the change, and the willingness to undertake the changes that introducing a new technology brings.

2.9.4 Change Management:

Change management can be regarded as a term used to explain various processes and approach by which organizations achieve set vision and set out plan (Lonrenzi and Riley, 2000).

Gary and Hamel (2009) puts it that change management entails equipping organisations in a proper way to efficiently and effectively address future challenges. It also refers to addressing changes and re-structuring within an organization in an efficient manner that ensures successful implementation of change is achieved (Apostolou et al, 2011).

Kotter and Schlesinger (2008) highlights some reasons why people put up resistance to change as; false or different perception of change, self interest, low tolerance for change, and misunderstanding/ lack of trust. Although (Kotter and Schlesinger, 2008) mentions a couple of reasons why people often resist change, (Rajlich, 2006) singles out change perception and extends on the importance of change perception by explaining that the view of the direct recipients of change influences resistance to change, and this is a critical factor when implementing information technology systems like Ecommerce.

Apostolou et al. (2011) points out that in managing resistance to change, it is important for the change manager(s) to improve communication and education,

participation and involvement, facilitation and support as well as negotiation and agreements. Improving communication and education entails to maintaining better rapport and training with persons resisting change. It is often important to employ a procedural and gradual approach when implementing change in order to avoid resistance to change.

Rajlich (2006) also talks about this point, mentioning that people are the greatest challenge to implementing change, and that radical change from one system to another often means that people have to change their habits and lifestyle thus leading to resistance to change.

It is important for Blue Fountain Solution to consider this because implementing a new system will have some effects on its members of staff.

In order to obtain a firm understanding of organizational processes, it is also vital to conduct an assessment of how the organizational processes get executed.

2.9.5 SWOT Assessment:

SWOT is often regarded as an acronym for Strength, Weakness, Opportunity, Threats. SWOT analysis is often used as an instrument for assessing the internal and external condition of an organization. This can also be interpreted to mean that SWOT analysis helps to measure the threats, Opportunities, that an organization is likely to face or is challenged with, as well as the strengths of a business and the weaknesses in its operations.

SWOT analysis can be regarded as a logical antecedent for improvements in an organization because it presents a firm understanding of the present state and provides a platform for obtaining information that supports future change (Jackson et al, 2003).

SWOT analysis can be conducted by an individual or group of individuals provided information is available. This could be a useful tool for evaluating current business process of Blue Fountain Solutions.

2.10 Conclusion:

Considering the discussion from relevant literature, Business Process Improvement has been comprehensively presented. The concept of electronic commerce, the advantages and the challenges that organizations face when embarking on the adoption of Ecommerce has also been discussed.

It has been established that E-commerce presents a lot of benefits for organizations and it can be a vital platform for major improvements to be introduced in an organization. Common challenges that might raise cause for concern in the implementing Electronic commerce have been presented with consideration given to the business area of Blue Fountain Solution.

It is important for us to examine the awareness level of Blue Fountain Solution to these challenges. This will provide a proper understanding of the organisations readiness to adopt Ecommerce. Proposition and Recommendations can then be made based on the findings. The evaluation of the firms' preparedness is important because it gives a firm idea of what can be implemented and the level of electronic transactions that can be accommodated by the business at the moment.

Chapter 3

Methodology:

3.0 Introduction:

The previous chapter highlights a review of business process improvement and electronic commerce implementation in an organization by touching on academic views of business process improvements as well as challenges experienced in implementing electronic commerce. This chapter seeks to build on these points by examining the current business model of Blue Fountain Solution Nigeria using qualitative and quantitative approach.

In many Academic research works (Pole and Lampard, 2002; Saunders et al, 2003; Weinreich, 2006), people often use qualitative research approach (interview), quantitative research approach (questionnaire) or a combination of both approaches. This research work employs a combination of both approaches to ensure that optimum result is achieved. The decision to employ both research approaches was to ensure that the information received from the interview is validated by a measurable means. The decision to employ both approaches was also partially influenced by the availability of a management report analysing customer complaints. A copy of this report is not included in the appendix section of this report for confidentiality reasons.

The first part of this chapter seeks to establish the business process where the organization experiences its biggest challenge, as well as generate a firm understanding of various activities within the process and how they collectively combine to generate outputs. This is done by conducting an interview for a senior management officer in Blue Fountain Solution.

The second part seeks to ascertain the effectiveness of the proposed change by sampling the opinion of the members of staff of Blue Fountain Solution using a questionnaire. This part also seeks to obtain suggestive idea from members of staff regarding customer response to the proposed change.

3.1 Justification for Qualitative Approach:

Although some literature (Saunders et al, 2003; Weinreich, 2006) suggest that qualitative method of research is often applied in lieu of gaining conclusive ideas when a mixed approach is adopted, (Pole and Lampard, 2002) points out that interviews presents an advantage of being able to relay the interviewee's feelings, attitude and opinion. Qualitative approach has been accommodated here for a few reasons:

Firstly it readily provides information on which empirical survey can be conducted. Interviewing Mr John Obidi, (a senior management staff) provided deeper information into how the company processes operates, and various departments responsible for different tasks that combine to service customer orders. This was particularly important because the company is geographically located in Nigeria as such physical observation of company processes to identify loop holes within the processes was not possible.

Secondly, adopting a qualitative approach was due to the fact that time available for the research will not afford an opportunity to conduct an effective survey amongst Clients of Blue Fountain Solutions. Several months would have been required to conduct an effective survey to assess the acceptance of electronic commerce as such the experience of Mr John Obidi was sort since he had been a management level staff with the organization in charge of Sales since the company's inception.

The third reason for adopting an interview is because interview presents an easier means of generating an idea of the client requirement for the Electronic commerce system being proposed. Saunders et al. (2003) also mentions this pointing out that interviews present an opportunity for researcher to obtain vital information useful to the execution of the research if properly conducted. In this case, the interviewee shared vital information about the transitions the company has experienced in its existence helping the researcher understand the company's position about impending change better.

3.1.1 Conducting the Interview:

The interview was conducted with Mr John Obidi who is the Managing director of Blue Fountain Solution and has been with the organization since its inception. The interview lasted for about 1 hour and was conducted via Skype Video call. Skype Video call was chosen as the medium of communication because it was cheaper for both parties. It was also preferred to regular telephone interview because it presents both parties with opportunity to understand questions and responses better. This view is also supported by (Weinreich, 2006), who mentions that when employing a technology

in carrying out an interview, it is important that both parties are comfortable with the technology being employed. The use of Skype was comfortable for both parties as it help to understand the message being communicated. Beyond the words and the tone of expressions, body language also helps to understand the degree to which each response was meant (Saunders et al., 2003) and this was helpful in this research.

All questions raised pertinent to the execution of this project were answered by the client and no issue came up that was unanticipated.

The interview had to be confirmed three weeks in advance and a time was chosen at the close of business week to ensure that interruptions were eliminated.

Some of the information deduced from the interview includes the current mode of business transaction, spelling out the processes and how they are interdependent on each other. The first four questions were drawn from a management report on complaints from customers. It addressed issues such as delivery of poor or damaged products, delivery of wrong items, and late deliveries. This helped to build a firm understanding of the delivery process, the current ordering process of Blue Fountain Solution as well as the interlinking activities.

The last Set of question sort to understand the company's awareness about electronic Commerce. This was also vital because it will help in managing the change that implementing electronic commerce would have introduced to Blue Fountain solution.

3.2 Justification for Quantitative Approach:

The aim of adopting a qualitative approach alongside a qualitative approach is to validate the ideas and opinion received from the interview. Ford and Ford (2009), mentions that it is important for management and other members of staff to have the same opinion about an impending change for it to be effectively executed hence a survey was required to get opinion of other members of staff.

Another reason for a quantitative approach is that it is important to get an idea of how the client might take to the new Electronic commerce system being introduced. To obtain this information, it was considered that conducting a survey for clients of Blue Fountain Solution will require a lot of time and logistics, as such opinion of members of staff who deal directly with these clients was sought using questionnaire. Conducting Interview for other members of staff might have produced a similar result but it was reasoned that the time available for the project was inadequate for several interviews to be conducted as such a survey for members of staff was adopted. In this case an online survey could not be used because although it will

generate feedback from people, it will not be a true representation of the perception held by clients of Blue fountain solution towards the adoption of electronic commerce system.

3.2.1 Constructing Questionnaire:

The questionnaire was made up of ten (10) questions, all positively framed using Likert scale. All questions had options ranging from strongly agree, slightly agree, slightly disagree, to strongly disagree except for the first three which had option of Yes or No. This meant that choosing strongly agree meant full support from the respondent and strongly disagree meant no support from the respondent.

A pilot test was conducted to ensure that open ended questions were avoided as pointed out by (Saunders et al, 2003).

3.2.2 Questionnaire Analysis:

Questions 1, 2 and 8 were directed at measuring the performance of the staff under the present business model of Blue Fountain Solution. Questions 3,4,5,9 were aimed at assessing the perception of staff towards the change to be introduced. Questions 6 and 7 was directed towards obtaining a suggestive idea of customer reception towards change.

3.2.3 Conducting the Survey:

A paper based questionnaire was used to obtain feedback from the respondents, and this was sent via Email to a member of staff who printed and distributed the questionnaire to other members of staff. Response was also collected, scanned and sent back via email. It was important to use paper based questionnaires because although some staff of the organization have access to the internet, not every staff of Blue fountain could access the internet.

Instructions were clearly written at the top of the questionnaire to assist respondents with providing feedback. It was also stated that participation is voluntary to ensure that respondents were not compelled to provide feedback. Target respondents were members of staff from Sales, Delivery and Warehouse departments. To ensure this was achieved respondents were required to tick one of three boxes indicating their department. Demographic questions such as Name, Age, Years of working with the organization was avoided to ensure that confidentiality of respondents was maintained (Pole and Lampard, 2002).

30 questionnaires were distributed to 10 members of each department and only 28 respondents returned their questionnaire. 3 persons did not complete the questionnaire properly as such only 25 were adopted.

Summary:

In this chapter, the reason for adopting a mixed approach to this research has been discussed, the justification for the quantitative data collect process has been presented, the consideration and caution taken to obtain relevant information from questionnaire respondents and the structure of the questionnaire has been outlined. The choice of interviewee and the reason behind conducting an interview has also been discussed.

The results and findings of this research will now be presented and analysed.

Chapter 4

Results and Analysis, Findings

4.1 Presentation of Interview:

The interview with Mr John Obidi, presented some information that was helpful towards implementing improvements on the business process of Blue Fountain Solution. One of the points gathered from the interview is that information dissemination between members of staff and clients is a huge problem thus creating a disconnection between the company and its clients. Considering the old/ present business process, members of staff also have a challenge with transferring information between themselves.

Another challenge often experienced is poor documentation, sometimes originating from the ordering process as well as the delivery process. A third point noted from the interview is that clients of Blue Fountain Solution are most likely to embrace electronic commerce as a way of transacting business with the company. A breakdown of the sources of challenges experienced by clients of Blue Fountain Solution has been drawn from the interview with Mr John Obidi and is shown in the figure below. Excerpts of transcribed interview questions and response from the interviewee has been attached to the appendix () of this work.

4.2 Evaluation of Blue Fountain Solutions Present Mode of Business:

To evaluate Blue Fountain Solutions present mode of transacting business, SWOT analysis has been selected as the evaluation tool. This is because of its stern ability to unveil positives and negatives associated with a business process. SWOT analysis will be used to identify areas of business advantage for Blue Fountain Solution. The opportunities that lie within the organizations' area of strength often prove to be the most productive because the organization requires less adjustment to harness the positives (Robert, 2004).

4.2.1 Strengths:

From communications with the client and the interview conducted, Skilled Work force, Low competition, and High patronage have been identified as strengths of the system. This is because the interviewee expressed that most of its staff have at least a basic level of education and have been trained previously to use some computer programmes. This means many of them will require little training to adapt to the new system that will be implemented.

Research on the company's line of Business has shown that very few organizations render same service to clients in Nigeria. This gives Blue Fountain Solution an opportunity to cement its place as the leading organization by adopting innovative service that will be beneficial to clients.

Another point gathered from the study about Blue Fountain Solution is that it experiences high patronage from its clients. This is strength to the company's business objectives.

4.2.2 Weaknesses:

Some of the weaknesses identified in the organizations present mode of operation refers to lapse short comings identified in the organizations processes. They are highlighted as lack of Lack of system support for some business operation, increasing client dissatisfaction, Spiralling cost of operating Business, Lack of guaranteed client service structure.

4.2.3 Opportunity:

This suggests areas of business transaction and practices that can be harnessed to produce a more effective in the system. The areas of the business that can be harnessed includes; building an E-commerce System to facilitate faster service to satisfy its high level of patronage from clients.

As a result of the organizations huge patronage, and loyalty from clients, it is easy for the organization to explore new products and markets. On the brink of low competition experienced by Blue fountain solution, the organization can develop patent rights for ideas and generic innovations; this will help to put the organization in a stable position with regards to other organizations.

4.2.4 Threats:

For areas of threats in Blue fountain Solutions mode of business transactions, the following points stand out; Change in client preference, client migration, change in government regulations. These are issues that can have huge impact on the organizations mode of business transaction. For instance government policies could change with change of government.

However, Blue fountain Solution can seize the opportunity to develop a new (E-commerce) system that will provide better service to its huge client base. This also presents an opportunity to try new services to its client as the company experience a huge patronage which stands as an area of strength to the organization.

4.3 Presentation of Questionnaire Results:

(Dada, 2006; Tan et al 2007; Berthon, 2008) expressed that it is important to measure internal and external factors i.e. the E-readiness of an organization for Electronic commerce to be effectively adopted. To implement this, present performance of members of staff and staff perception were selected as internal factors while anticipated client response to change was suggestively measured as a representation of the market which could be an external factor influencing effectiveness of proposed change (Tan et al, 2007)

4.3.1 Assessing Current Performance of Staff:

Questions 1, 2 and 8 were structured to assess the current performance of staff considering the way business is currently operated. This is aimed at obtaining how well staff fared across all three departments. The feedback shows that members of staff are generally unable to meet required performance targets.

Question1:

In order to find out how the members of staff fared under the present mode in which the organization transacts business, respondents were asked how well they are able to meet performance targets which is reviewed based the speed at which they attend to clients and their ability to avoid client complaints.

From the survey, 23 respondents (92%) agreed that they are unable to meet their performance requirement. Only 2 respondents disagree.

This is really important because the acceptance of poor performance by respondents might suggest that change to improve their performance could easily be adopted by members of staff in general.

Question2: from the three departments surveyed, 24 respondents (96%) said that they often receive complaint from clients about their service only 1 respondent disagreed. This validates the information gleaned from the management report and the interview conducted, expressing that the organization has experienced an increase in customer complaints.

Question 8: 10 respondents strongly agreed that that they make mistakes while sourcing for items or documenting customer order, 8 slightly agreed, 6 slightly disagreed, and 1 completely disagreed. This validates information received from the interview which revealed that a sizable fraction of the mistakes that occur in processing and delivering customer orders

could arise from documenting the customer order and transferring this in between departments.

Considering the response to these three questions, it can be said that from the charts and table (4) below, the performance of staff across all three departments is seen as low.

4.3.2 Staff Perception of Change:

Questions 3, 4, 5, 9, 10 were directed at measuring the idea members of staff held about the change that was to be implemented. This was aimed at helping to manage change to ensure that the change to be introduced is supported by the staff that will be the primary recipients.

In addition it also helps to decide the level of internal E-readiness as expressed by (Tan et al, 2007). Question 3: all, (100%) response received indicated that they know about electronic commerce.

Question 4: 15 respondents indicated that they believe the adoption of Electronic commerce will help improve their Job, 4 slightly disagreed and 6 strongly disagree.

Question 5: 17 out of 25 respondents strongly agree that Ecommerce will help to improve their productivity by providing them with information when needed. 3 respondents slightly agree and 5 slightly disagree. This confirms an idea expressed in the interview that members of staff have

Question 9: 10 respondents strongly agreed that round the clock service will reduce the pressure on them and improve the quality of their service to clients. 5 slightly agreed while 4 slightly disagreed, and 6 strongly disagree. All 10 respondents that strongly agreed were from sales department, while all 6 respondents who disagreed were from Delivery department.

This question was derived from the advantages that E-commerce present to an organization

Question 10: 21 respondents strongly agree that Ecommerce will help Blue Fountain Solution service it clients from other parts of West Africa, 4 slightly agree.

4.3.3 Suggested Feedback on Client Response:

Questions 6 and 7 were designed to obtain feedback on how staff thinks the customers will respond to the adoption of electronic commerce by Blue Fountain Solution.

Question 6: 23 respondents strongly agreed that customers will transact business online with Blue Fountain Solution if Ecommerce is adopted, 1 slightly agreed, and 1 slightly disagreed.

Question 7: all respondents indicated they strongly agree that customers will be happy to purchase and monitor delivery of their order online

4.4 Findings:

The issue of cutting down increasing level of error in organizational processes stands out. In responding to the questions during the interview session, the interviewee explained the process that has to be undertaken in executing an order from a client, and mentions that some staff of the sales department make mistake when documenting a customer order due to the accents, age of callers etc., and this spills into other tasks as shown in Fig 3 above. This is further verified by the survey conducted on members of staff (question 8). 92% of respondents agreed that they sometimes make mistakes while documenting or delivering customer orders. 56% of respondents strongly agree that they sometimes make mistakes as shown in table (4) above. Admitting this point could be indicative of the level of error in the organizations' present processes.

Willingness to adopt E-commerce on the part of management can also be seen as a point from the interview. The interviewee expressed that these mistakes often arise as a result of pressure from clients due to the company's growing client base, and also uttered that they have made several efforts at increasing human resource and training them, the interviewee also stated that they are willing to seek alternative means to solve this problem making referenceto other companies that have successfully embraced electronic commerce as a solution to this problem.

Response from the member of staff towards impending change seems encouraging, every respondent expressed some belief that the adoption of E-commerce will be beneficial to the organization in providing better service to its clients in west Africa, with 84% strongly agreeing and 26% showing slight agreement. This is further validated by 60% of respondents who expressed that they believe the adoption of E-commerce will help them improve their service to clients. This point is Supported by (Amer et al 2010) as one of the advantages of E-commerce, stating that E-commerce presents clients of the company with round the clock service as such clients can afford to purchase at any time online. This will reduce the pressure on office staff as a huge portion of their interaction with clients will be done by an automated system thus reducing the pressure they face.

However, with all 10 respondents from sales department strongly agreeing that the adoption of Ecommerce will help them improve their service to clients and all (6) six respondents from the delivery department instrong disagreement with this Idea, there is need to review the perception of change amongst delivery team. This could be interpreted to mean that although staff of the delivery department perceives change as beneficial to the company as indicated by their response to (question 10), they do not think it will

improve their service to clients. This might come under one or more of the reasons given by (Kotter and Schlesinger, 2008; Rajlich, 2006) for resistance to change. To address this, it is important to improve communication and education, facilitation and support, participation and involvement, as well as negotiation and agreement (Apostolou, 2011).

Although the interview initially suggested that most clients will accept the new system to be implemented, it was important to conduct a survey on staff that interacts with the clients directly. Tan et al. (2007) mentioned that organizational E-readiness is vital to successful implementation of E-commerce with an explanation of external factor such as the market playing an important role. To assess the E-readiness of Blue Fountain Solutions' market (Clients) to accept change, respondents were asked what they thought about clients' willingness to transact business with Blue Fountain Solutions Online, 92% strongly agreed that clients are willing to transact business online. 8% of respondent were evenly split between slightly agree and slightly disagree.

On the other hand, 100% of respondents agree with the opinion that clients will be interested in purchasing and monitoring delivery of the items they have ordered via the internet. This gives further credence to the point initially gleaned from the interview that many clients will take to the new system being set up.

Other issues such as physical infrastructure and human resource capability have not been stressed upon in the survey; however they have been addressed in the interview, thus they will be reflected in the recommendation.

The questionnaire used for carrying out the survey, has been attached as appendix (2) of this work.

4.5 Summary:

Bringing all the points relayed in this chapter together, excerpts of the interview with a management staff of Blue fountain solution and deductions from it has been presented, a cause and effect breakdown of the sources of clients' complaints has been produced from the response to interview questions and management report. It has emerged that addressing most of the client problem is paramount on the agenda of management. The organization has also established its willingness to adopt a new system of business operation as a way forward.

Strength Weakness Opportunity and Threat assessment has been discussed and how it can be used to identify what is most positive for an organization. According to the SWOT assessment, it has materialized that adopting electronic commerce presents high opportunities which can be effectively harnessed due to the organizations area of strength.

Some points crucial for implementation of a new system earlier identified by some literature have been researched upon within the organization. Perception of change amongst staff, Acceptance of impending change by clients and performance level of staff considering the present system, identified as indicators of E-readiness and requirement for change management has been researched upon.

The findings that have emerged are; the alarming rate of error as indicated by the management report has been confirmed. The organizations willingness to adopt E-commerce has been confirmed. It has been established that most members of staff are positive towards the change to be implemented, besides Staff of the Delivery department who indicated that the change will be beneficial to the organization in general, but will have little benefit to their duties/ tasks. It has also been suggestively gathered that clients will be interested in the new E-commerce system that is being adopted by the organisation.

On the premise of these points a system will be recommended for Blue Fountain Solution to address most of the problems encountered.

Chapter 5: Recommendation.

This chapter presents the suggestions counsel an advice drawn from the research conducted and highlights ideas that can help Blue fountain Solution improve its service to clients.

5.0 Managing organizational change: *(discuss about the need to train staff when a new system is implemented, and interactive training as a way of eliminating resistance to change)*

5.1 Client Requirements:

This relates the client's basic expectation from the system being put together. This requirement was gathered from the interactions with the client, and the functions that the client has indicated the system should fulfil.

- ✚ A commercial Website
- ✚ An extranet that allows supplier and other companies to transact business with Blue Fountain Solution.
- ✚ Integration of Blue Fountain Solution's sales process.
- ✚ Definition of feature to be accommodated alongside the website

5.2 Basic User Requirement:

- Blue Fountain Solution requires a commercially efficient website that supports client request; i.e. Clients

should be able to come online and view specifications of required items, place order for items on the company's website. Customers should also be able to find out the cost of items from the website, get information about the time required for items to be delivered, cost of items. The system should also eradicate or limit most of the challenges experienced in contacting clients.

- The system should also accommodate a connection (extranet) that allows suppliers to log in and obtain orders for their products, indicate availability of their products. There is also a need to automate the stock the stock calculation process as goods constantly come into the warehouse and leave causing occasional mismatch of figures.

- The order processing system of Blue Fountain Solution Nigeria needs to be integrated with the system of its suppliers and the website should be hosted by an external service provider with a link to the in house systems that are located inside the company premises.

5.2.1 Functional Requirements:

The functional requirement of the proposed system relates the capabilities of the system and functions that the system is expected to satisfy. These have been drawn from the needs stated by the client and the outcome of the research. The functional requirements are explained and highlighted below;

The website will need an interface which allows users to register their details online and provides them with a login ID upon registration, passwords should also be generated for clients from the information that has been provided. Payments with Credit and debit cards should be enabled; funds transfer should also be supported with option of the system sending confirmation for transactions completed.

Client request should also be effectively managed, the system should direct request from clients to the service that is required with ease. For example clients should be able to access the information they require from the website in not more than three clicks. Members of staff from the warehouse, sales and delivery departments should be able to access information about clients on their systems.

It is expected that the system should:

- ❖ Accommodate an interface that handles online payments (credit and debit card payment, cash transfers), with customer receiving notification for customer on confirmation of payment.
- ❖ Make room for new clients to create login Identity and passwords
- ❖ Client information such as address and name should be retrievable
- ❖ Manage all queries from clients
- ❖ Be able to generate history of products often purchased

- ❖ Make allowance for clients to track the delivery of item they ordered.

- ❖ Be able to compute the cost of customer orders and provide them with cost at whenever a request is made online.

System should enable clients to:

- ✚ Login with a user Id and a password from a distant location.

- ✚ Make orders for items online

- ✚ Make payments for items ordered online

- ✚ Assess details of their order and track delivery points

Staff should be able to:

- Log into the system with a user ID and Password.

- View history of client transactions (orders and payments)

- View client address and demographic details.

- Update client details

- View current order and purchase by clients.

- Provide comments on accounts and provide advice to clients.

5.3 Process Description:

The new process begins with a client accessing Blue Fountain Solution Website (1). For old clients, they access the system directly by logging in with their pre-existing user ID and password (2), and present their order. For new clients they will have to register online in order for them to be able to transact business with Blue Fountain solution via the website (3). At the point of registration, they are issued with a password and a user ID. Details provided by clients are stored on the web database which is linked to the central database located at Blue Fountain Solution's office in Nigeria.

The clients then suggest the items they want to buy in form of a Proforma order with all the specifications (5). The proforma order is then assessed by an intelligent part of the system which scans through the databases of all its suppliers to obtain information about availability and cost (6). Where the items ordered are unavailable, it returns a feedback to the client indicating unavailability of items ordered thus ending the request (7). Where the items ordered are available, the cost of the items and the expected delivery date is computed by the system and fed back to the client (8).

The client then decides whether to proceed with the transaction or not (9), where the client rejects the feedback the process is ended. If the client decides to proceed with the transaction, payment is made online (10) via debit/credit card transactions, bank transfers etc. which is confirmed by the system (11). Suppliers are then authorized to supply the items (12).

Upon receiving the items at the ware house (13), a series of check is conducted at the warehouse (14) and recorded in the central database to ensure that items

received are same as what the clients requested. Where the items received fail any check conducted it is regarded as rejects. Where the items passes the check conducted (15), the client is contacted to pick up the item requested or to confirm delivery information provided (16).

The items are presented to the client by the delivery personnel, where the client is unsatisfied with the order (17), goods are returned to the office by delivery personnel (20) and formal record is entered into the system by the delivery department (21). Where the clients accept goods, the signature of the client is obtained (18), and a record is entered into the central database from the delivery department which signifies the end of the transaction process.

5.4 Design Explanation and Evaluation:

Although there are several E-commerce tools that could have been incorporated into the system design, only few have been selected and adopted in this design for the following reasons:

Firstly, (Rajlich 2006) points out that in implementing change, it is often important to employ a gradual approach in order to avoid resistance from the recipients of change.

Secondly, from (Kaynak et al, 2005; Molla and Licker, 2005), it had been presented that start up cost is usually a major setback for organizations embarking on E-commerce adoption. However, (Kaynak et al, 2005) also mentions that start up cost can be minimized by adopting only tools that are most relevant to the organizations area of business; as such these tools have been selected to address basic problems identified in Blue Fountain Solutions.

The new system design proposed for Blue Fountain Solution consist of a full functional website which contains functions that enables clients to Register online Log in, Create an order basket, make payments online and track their order online. A bespoke approach will not be adopted for financial reasons. The solution Proposed here has the website connected to a database (Web database1) with a backup database attached for support and to handle emergency situations although there is a recent version of Microsoft server (2012), Microsoft server 2008 has been chosen because it is very reliable and has more consistent review from organizations that have tried both servers.

The database is linked to an extranet which links Blue Fountain Solution to Suppliers whose connection to the extranet gives them access to Blue fountain solution order at every time.

This is beneficial to organization, in connection with the **Order processing system**, the orders place by clients online will be processed automatically with records made available to all the departments where necessary immediately. This will eliminate errors such

as typing mistakes that might arise from the sales department highlighted in the earlier part of this work etc. it will also support faster processing of activities in the office as information is made available on time.

The **payment systemonline** is linked to the bank database through internet connection. This is to ensure that clients are able to make payments online thus addressing some of the complaints raised by client in the management report.

The **Financial Support Tool** incorporated in this design is connected to the Central database which is located at the premises of Blue Fountain solution Nigeria. This ensures that all information saved on it can be assessed by all the applications connected to it. The financial system takes charge of all the monetary transaction for Blue Fountain solution. It ensures that financial record is kept as well as controlling billing record for all transactions on the website. Issues such as wrong billing will be addressed by this system.

Decision Support Tool, will help to make the organizations' transaction processes easier and more pleasurable for clients. Decision support systems will be needed to assist in identifying some complex products as well as helping the customer where making a choice is a challenge.

The **Supply chain Management Tool** will be very vital for the Warehouse team and the Delivery team. Amer et al, (2010) points out that supply chain management systems are vital.

CHAPTER 6: PROJECT EVALUATION

6.1 Objective of this Chapter:

The objective of this chapter is to evaluate the level of success achieved with respect to the following:

- ❖ Project objectives
- ❖ Client requirements
- ❖ Feedback and deliverables to Blue Fountain Solution Nigeria.
- ❖ Challenges encountered
- ❖ Project Supervision

6.2 Introduction to Evaluation:

This chapter assesses the level of success achieved in executing the entire project by considering aspects that are very crucial to the success of the project. Aspects such as client requirements, feedbacks obtained from client on deliverables, the objectives of project and how achievement of individual success in these areas culminates into general project success. The following section presents a consideration of critical aspects with respect to project success.

6.3 Critical Evaluation of Project Success as regards product delivered to Blue Fountain Solution:

At the commencement of this project, an agreement was reached with the client stating that (1) product will be delivered. Kindly regard Appendix (4) as agreed product delivered to Blue Fountain Solution. A set of recommendations has been outlined in chapter 5 of this report,

Product (deliverable) 2: A set of recommendations for Silverseal mart on how to use the proposed tool for maximum benefits

The second product that was delivered to Silverseal mart is a set of recommendations on how the management of the mart can apply the proposed tool for maximum benefits of increased sales (see Appendix I). Being the second product delivered, the set of recommendations has been highlighted in chapter 5. Proper implementation of the proposed tool is critical since it is expected to drive sales, hence the need for the recommendations on support on how to use the proposed tool for maximum benefits, which has been discussed in detail. Silverseal mart is expected to gain the benefits of the tool if they adopt the proposed recommendations and proper implementation of the proposed tool.

- To carry out a comprehensive review on the existing literature regarding business process engineering.
- To carry out a critical evaluation of the existing business strategy adopted by Blue Fountain Solution Nigeria.
- To identify ways of improving the Business process.
- To suggest ways of improving order processing and delivery.
- To analyse the positives and negatives of improvement being introduced.
- To critically evaluate the project.

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CONCLUSION

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