

PROCUREMENT PROCESS DESIGN

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A Case Study of Blissfulminds Nigeria Limited



Bachelor's thesis

Supply Chain Management

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PROCUREMENT PROCESS DESIGN

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ABSTRACT

In the business world today, competition among business organizations that produce the same products, and render the same services with the target of the same customers, has made it difficult for many business organizations to keep their business steady. In Nigeria many small and medium sized enterprises lack procurement strategy, which has resulted in high costs of running the business and the aftermath has hindered the business success of many business organizations. Blissfulmind Nigeria Limited was used as a case study in this work. This company is a small-scale business in Nigeria that lacks a procurement strategy of their own.

The aim of this work was to explore information from Blissfulmind Nigeria Limited business stakeholders, using different methods such as emails, Skype interviews and one on one visits to the company itself, and use the information derived to design a procurement process for the company and observe the effectiveness of the process for a period of 6 months.

After Blissfulmind Nigeria Limited implemented the procurement process, the value of the product (bread) was reduced by eight times before the commissioning of the procurement tools from 16% to 2%, and the cost of acquiring their raw materials was reduced by 16.7%.

The author of the thesis was able to conclusively show that by proper implementation of the procurement process it was possible for everyone involved in the business environment to achieve the best business success. In this project it was also suggested that some future research should be conducted to compare the effect of designed procurement tools in the optimization of companies in different countries based on their inventories.

Keywords Procurement process, Stakeholder and Strategy

Pages 23 p.



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ACRONYMS

ASME-	Association of Small and Medium scale Enterprise
BmNL-	Blissfulminds Nigeria Limited
CAC -	Cooperate Affairs Commission of Nigeria
CBN -	Central Bank of Nigeria
CRM -	Customer Relationship Management
CSM -	Customer Service Management
D&B -	Dun and Bradstreet
EU -	European union
MEAT -	Most Economically Advantageous Tender
NCI -	National Council of Industry
P2P -	purchase to pay process
PSA -	Product and Service Agreements
SME -	Small and medium sized enterprise
SPM -	Supplier Relationship Management
SRM -	Supplier Relation Management
SCM -	Supply Chain Management
VMI -	Vendor managed inventory
UTC -	United Trading Company

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1 INTRODUCTION

In the business world today, several organizations or companies produce the same products as well as render the same services, resulting into competition among business organizations because they target the same set of customers. For instance, in the mobile phone industry, producers of Apple phones, Samsung and Microsoft compete with one another in order to gain more customers and also to maximize their profits. For an organization to increase her profits, market share and sales volume in order to keep her business steady, customer satisfaction and product quality are the major factors used to gain a competitive advantage which will not only attract new customers but also retain the existing ones.

A production company must be able to evaluate and monitor her key functional areas in terms of production, transportation, resources, raw materials, maintenance and many more so that a dollar saved in each section of an organization has an overall impact in the company's turnover. Although product quality and customer satisfaction are the essential commodities in a good business, many organizations lack the knowledge of how to efficiently use their resources to achieve a successful business operation.(Gitman &Mc Daniel 2005.)

Many businesses seize to operate optimally as a result of improper implementation of the procurement process which eventually leads to a high cost of running a business. Hence, cost is a critical factor that hinders the success of a business if proper care is not taken. In the world today, businesses are becoming more interdependent as a result of globalization and the aftermath effect has lead to expansion of businesses across the globe.

A detailed understanding of the processes involved in procurement and its implementation will enhance the efficiency and effectiveness of a company in an highly competitive market, which will in turn bring about a good chance for success. Modern enterprise are faced with massive set of challenges such as products delivery to the customers at the right time and place, forces of globalization, increased risk, complex supply chain and the spread of government regulation on decision making. However, business environment go through difficulties in establishing better models than the existing conventional suppliers relationship. (Matt 2014.)

1.1 Background of Blissfulminds Nigeria limited

Blissfulminds Nigeria Limited (BmNL) is a production and packaging industry established in Osogbo, the capital city of Osun state, southwest region of Nigeria. BmNL was officially registered with the Cooperate Affairs Commission of Nigeria (CAC) in the year 2013 with the registration number RC1152528. The organisation is a company limited by shares. Her business has concentrated in the production of consumable household needs such as bread, bottled water and rearing of livestock. BmNL operates in a market region saturated with industries producing similar products like bread and bottled water of the same taste, quality and price. However, product similarity has made it difficult to differentiate whose product is the best. This has hindered development and growth within the local producers, resulting in

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competition for customers. The main business idea of BmNL is to offer their customers quality products at a reasonable price which will also be profitable for the company. The company being a relatively young organisation, it has not been able to design a standard process to manage the procurement and purchasing of raw and packing materials, thereby it has not been able to properly manage the cost of her production. This has greatly affected the profit margin for the organisation, especially with the current economic crisis in Nigeria. This was the basis for the emanation of this thesis with the main focus on the bread baking unit of the organisation. The aim was to extend this procurement process design to the other units of the organisation once the design had been tested to be a reliable and working process.

Figure 1 Organizational structure of Blissfulminds Nigeria.



General Manager: This is the person who directs the operation of a small business or a department in a company. In an organization, a general manager is typically in control of production, sales, finance, purchasing and other departments. He/she is generally responsible for all operations like decision making in regards to planning, organizing and controlling of human resources.

Production Manager: He/she is responsible for production and quality control. He/she also make provision for overall management in production operation such as inventory control, accurate production within scheduled time , documentation, maintenance of equipment, quality control and inspection.

Finance Manager: He/she is in charge of all financial activities of the business such as providing adequate capital for the purchasing manager and as well keeps records of business expenses.

Purchasing officer: He/she ensures the procurement and availability of material for the business.

1.2 Problem Definition

BmNL is a business venture that has no standard procurement process running at the moment. As a result, they could be out of stock (OOS) have in-adequate raw or pack materials for a particular production period. This most times leads to unplanned downtime, buying materials at an extremely high cost, paying for free hour to the workers, disappointment and dissatisfaction to the customers and consumers. A layman explanation of this can be illustrated thus:

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Bread which is one of the products of BmNL is experiencing delay in its production as a result of no flour available. Flour which is a major raw material is being purchased at a time when there is a need for production. Due to this fact, the cost of acquiring the material is high and also the flour might not be available at that particular time which affects the production for the day.

1.3 Research objectives

As market expansion and product innovation are the main targets of BmNL, the aim of this thesis was to explore and present the procurement processes in today's business environment and use this as a platform to enhance the sustainability and profitability of Blissfulminds Nigeria Limited in order to give them a competitive edge as well to assist all small-scale and medium-scale entrepreneurs at large.

2 LITERATURE REVIEW

For the purpose of a research work, some secondary sources need to be reviewed to gain insight about the current ideas or knowledge about a research work, such as theoretical, experimental and methodological contributions on a research topic.

"Literature review has been described as the basis for research in nearly all academic field" (Lamb 2014).

2.1 Overview of Small and medium Enterprises (SME)

Small and medium enterprise (SME) is the term used to describe a group of enterprise and the way they are being managed. Small business do not conform to specific factors or parameters, this depends on the industry and the aspiration of those who run the business. (David & Nicholas, 2006.) This has made it difficult to have an agreed definition for the term. Some definition of SME use numerical parameters to differentiate smaller businesses from larger businesses. According to European union (EU) the definition of SMEs are based on the headcount, turnover and balance-sheet value as illustrated in Table 1.

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Table 1 EU definition of Medium, Small and Micro Industry adapted from (<http://europa.eu.int>. /cengagebrain.com.au)

TABLE 1.1		SME thresholds (as adopted by the European Community in 2005, revised from 1996 thresholds)		
<i>Category</i>	<i>Headcount</i>	<i>Turnover</i>	<i>OR</i>	<i>Balance sheet total</i>
Medium	50-249	<€50m		<€43m
Small	10-49	<€10m		<€10m
Micro	0-9	<€2m		<€2m

In Nigeria, the definition of an SME differs from organization to organization. In 2001, National Council of Industry (NCI) described the investment capital of SMES to be between NGN 150 - 200 million and work force between 11 - 300. The National Association of Small and Medium scale Enterprise (ASME) defines SMES as a business enterprise with less than 100 employee with annual turnover of NGN 500 million. Also, Central Bank of Nigeria (CBN) describes SME as an enterprise with maximum asset of NGN 200 million excluding land and working capital with number employees not less than 10 but not above 300 (cenbank 2004).

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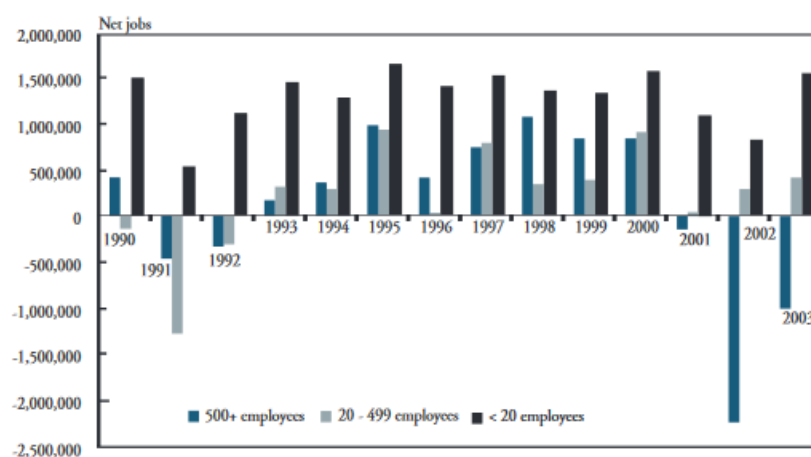
Table 2: Definitions of SME by different organizations in Nigeria adapted from world bank (2001)

<i>Institution</i>	<i>Asset value (NGNmillion)</i>			<i>Annual turnover (NGNmillion)</i>			<i>No. of employees</i>		
	<i>MSE</i>	<i>SSE</i>	<i>ME</i>	<i>MSE</i>	<i>SSE</i>	<i>ME</i>	<i>MSE</i>	<i>SSE</i>	<i>ME</i>
Federal Ministry									
Of Industry	200	50	n.a	n.a	n.a	n.a	300	100	10
Central Bank	150	1	n.a	150	1	n.a	100	50	n.a
SMIEIS	200	n.a	n.a	--	--	--	300	--	--
NERFUND	n.a	10	n.a	n.a	n.a	n.a	n.a	n.a	n.a
NASSI	n.a	40	1	n.a	40	n.a	n.a	3-35	n.a
NASME	150	50	1	500	100	10	100	50	10

2.1.1 Importance of SMEs

Although small businesses may not generate as much money as large industries, but they contribute greatly to the development of local economies (smallbusiness.chron.com). Small business stimulates economic growth by increasing employment opportunities and also motivate the innovation of new ideas for developing new products. Hence, in the economy presently, small businesses are the technological leader of many industries. (kansascityfed.org.) For instance United States statistics of business from 1990-2003 has shown that small sized business accounted for 79.5 percent of the total new job created in the country.

Chart 1
NET JOB CREATION BY FIRM SIZE, 1990-2003



Source: U.S. Census Bureau Statistics of U.S. Business

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Figure 3 Job creation by size of company. Adapted from
(<https://www.kansascityfed.org/publicat/econrev/pdf/2q07edmi.pdf>)

2.2 Procurement

Procurement is one of the key functional areas in an organization. It is a major cost center through which all materials are channeled into the company. It is the organizational center that handles the buying of all materials, exchange of materials with financial resources for further processing. This process generates additional revenue to the company without compromising the values and integrity of the company before its customers. Procurement process has several definitions which are based on the act of buying goods and services and its preparation and processing based on demand. Turner (2011) described procurement as a system or process that supports organization's total needs for the supply of goods, services and processes that is required to achieve the goals and task established by the organization.

Procurement is also defined as the process of getting the goods and services a company needs to fulfill its model through various tasks such as quality standards development, financing, price negotiation, purchasing, value analysis, supplier research and selection, inventory control and disposal of waste products like material packages. (Kolenko & Kolenko 2014.)

Also, procurement is the act of finding, acquiring and buying of the appropriate goods, services or work from external source at the best possible cost to meet the need of the acquirer in terms of quality and quantity, time and location (Weele 2010). Chartered institute of procurement and supply (2013) also described procurement as the business management function that ensures identification, sourcing access and management of the external resources that an organization needs to fulfill its strategic objectives

Procurement is a natural process in which one production step is taking before the other in such a way that each stages requirement needs to be fulfilled in order to achieve the desired result. It is a process that explores supply market opportunities and implements resourcing strategies to give optimum supply outcome to the company, its stakeholders and customers simultaneously. However, procurement efficiency is determined by its value and on the success of the organization. (Turner 2011.)

Procurement activities or process can be divided into two categories; Direct and Indirect procurement activity. Direct procurement is the focus on the supply chain management which is related to production activities that directly affect the production process of a manufacturing companies or firms. Indirect procurement activities focus on the operating resources a company purchases to enable its operations such as equipment, maintenance, repair, consulting services and outsourcing services. (Cadwell & Davies, 2009; Lewis & Roehrich 2009.)

In the business environment, the term procurement can also be referred to as supply management. Some organizations prefer to use the term supply chain management as both words are synonymous and have similar key characteristics. According to

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Turner (2001), supply management as a concept and procurement are synonyms. However from the academic point of view, supply management seems to be broader as it encompasses procurement itself in its entirety. Supply management can be defined as a concept that uses specialized tools, focus on specific techniques and processes to maximize the effectiveness and add value to an organization's procurement services. (Turner, 2011.) But, the primary aim of the two activities is to manage the external resources for the benefit of the company and customers, to generate income for the company and add value to their customers in general.

2.2.1 Essence of procurement

Turner (2011) proclaims procurement process as a cost centre. In a company, procurement delivers a wide range of benefits by supporting the strategic organizational objectives. Seven core benefits of procurement have been identified. These include; supply security in terms of raw materials and end products, lower cost of production, risk reduction, improved quality of products, greater added value, increased efficiency and innovation (CIPS 2013).

Procurement creates higher profit margin and prevalence over other competitors through managing the ordering, receipt, review and approval of the inflow of items into the organization through the suppliers. Procurement will be effective and profitable if less efficient organization can integrate its philosophy and culture into their system. (Turner 2011, p. 2.)

Morledge and Smith (2013) reported that it is possible to reduce a project capital cost by an average of 5% if the appropriate procurement method is adopted. However, the benefit of procurement is attained or guaranteed when a strategic procurement management is employed into an organizational system.

2.2.2 Types of procurement

Procurement basically includes two inter-related elements: purchasing and supplying of goods (Heiserich, Helbeig & Ulmann 2011). There are six types of procurement and these include;

1. Single procurement: this is a type of procurement in which specific customers order initiates and triggers the supplier's process of production (Heiserich *et al.*, 2011).
2. Stock procurement: in this procurement type, goods are restocked based on threshold level. There is a minimum level of stock that must be available in storage after the completion of a production until the next order is received from customers. This procurement is beneficial because customers demand can be anticipated. However, its drawback is that the procurement cost may be higher. (Heiserich *et al.*, 2011.)
3. Vendor managed inventory (VMI): this is a procurement method in which customers or end users have close network with the supplier, the supplier are responsible for stock at their customer's company. This procurement type is beneficial because it create an avenue for optimized production process, lower costs and it also gives room for flexibility. (Arnold, 2009.)

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4. Just in time procurement: it is a procurement type based on supply of goods when the stock level of the company is low. This procurement types is helpful because it reduces cost and balanced process. (Toyota company n.d.)
5. Just in sequence procurement: it is a procurement type based on the succes supply of required goods to a company at a specific time.
6. Ship to line: is a procurement type that requires less logistical steps, goods or raw materials are dispatched from the last added value of the supplier to the first added process of the customer (Heiserich *et al.*, 2011).

2.2.3 Procurement process/strategy

Procurement strategy can be defined as the planned approach used by a company in purchasing their required goods, raw materials or services based on factors like procurement timeline, funding and budget, projected risks and opportunities and many more (Procurement academy n.d.).

Five main key performance drivers have been identified for procurement process, these include; time, cost, quality, reliability and technology (Turner, 2011).

1. Cost: There is no doubt that the search for lower costs of material has been the greatest driver for procurement strategy. In order to win the preference of consumers, business enterprises are striving to produce cheaper and more distinct product to their potential customers. (Kotabe 1998.) Because the raw materials or products supplied by a particular supplier may be too expensive, and the same materials are obtainable at cheaper price from other merchants elsewhere has brought about the integration of procurement strategy to reduce the cost of acquiring goods.

2. Time: Due to some difficulties like availability of capital and locations, some supplier may be unavailable to supply a required material or probably they are incapable of meeting the required delivery time. This has motivated the developments of procurement strategy in order to source for the best candidate that could meet up with the company's need at the appropriate time.

3. Quality: For some products, buyers usually empahasise on the quality. Because the quality of raw materials or products obtained from a supplier is unsatisfactory or insufficient for a manufacturers to sell their product to their potential consumers where higher standards is demanded. For a company to maintain it competitive advantage ahead others, they may adopt the procurement strategy to source for raw material that meet their specifications.

4. Technology: Because some supplier do not have access to first class level of technology, which has in turn affected their reliability in terms of providing raw material based on agreement. This has made some manufacturer to develop procurement process to identify reliable suppliers.

Procurement process is handled by a professional who oversees and manage the inflow of external resources into the company. Procurement process is quite a challenging and critical task depending on the kind of project a company is executing. Each company has its own characteristics, divergence in strategy, size, product range and market coverage. For instance, a multinational company like United Trading Company (UTC) in Nigeria with several multiple products will employ all the stages of procurement process than any other small or medium scale enterprise manufacturing same product. As a

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result, suppliers, logistics and customers vary according to each industry. However, despite these variations, procurement process usually follows same procedure but its application is determined by the intricacy of the project. A manufacturing company has different sections, each section or sector follows a process which serves as a frame work or blue print for better business results. These processes are mechanism that strategically direct resources and activities toward achieving the aim of the organization. (Richardson 2007.)

2.2.4 Stages of procurement process

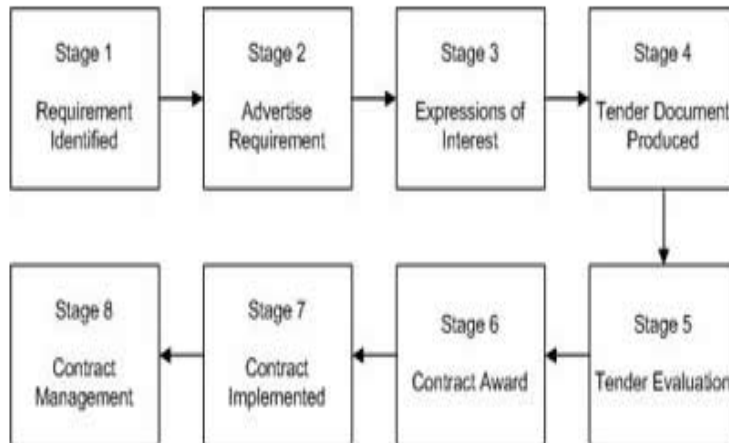


Figure 2: Flow chart illustrating the high level stages of a typical procurement process (dsfire.gov.uk).

Business process strategies are weapons that can be optimized to be ahead competitors. Figure 2 above shows the stages that is required to procure a projector business.

1. Identifying business or project requirement: This procurement stage involves the identification of a business need, consultation of stakeholders, risk assessment, scope and communication system for the manufacturing of product and service. The required materials for a business may include; equipment, components, finished products and raw materials. While service requirements include computer programmers, hazardous waste handlers, transportation carriers, and maintenance service provider. (Robert, 2011.) The main objective of this procurement stage is to embrace the entire requirement of the business and to obtain full support from all the stake holders involve.

Business stakeholders are divided into two; internal and external business stakeholders. The internal stakeholders are the business owner, staffs and customers while the external stakeholders are suppliers, government agency etc. Hence, when taking business strategies decisions, the three main stakeholders involve are the major competitors, primary customer groups or targeted groups and the major suppliers. (Van & Walee 2010.)

2. Requirement advert: this is a stage of developing procurement strategy, and it is also known as call for tenders. Different business requires different approach, and this depends on the scale of the project or business. This stage involves team formation, market research and precise definition of target, objective or purpose. (Purchasinginsight n.d.)

In business organization, the aim of the procurement strategy cannot be achieved without the support of the suppliers or tenders (Report of dsfire n.d.). The call for

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tenders can either be open where all suppliers are invited, or the request for business need can be a restricted call for tenders, which are open to only the selective merchants, vendors or suppliers. Business requirement is advertised through different means, like internet such as blueprint e-tendering portal. The main objective of this procurement stage is basically to generate competing offers from different bidders, demonstrate value for money and to put the entire procurement into a reasonable time scale.

3. Expression of interest: Here all supplier, vendors or contractors who can guarantee performance clearly express their interest in tendering. The aim of this is to generate shortlist of suitable suppliers or vendors. (Urizar 2013.)
4. Preparation of tender document: In this procurement stage, a document that adopts a specialized procurement approach is produced and made available on the blueprint e-portal. This document address whether the suppliers or vendors take into account the environmental, sustainability, ethical and social issues. (Report of dsfire n.d.).
5. Suppliers or tenderers evaluation and selection: This involves the development of strategy to grade, screen and notify prequalified tenderer. The aim of this procurement stage is to evaluate, assess and choose the most economically advantageous tender (MEAT) that conforms the user's specifications and requirements based on factors like; price, quality, service and delivery. (Robert2011.)
6. Contract awarding and negotiation: This entails the negotiation and allocation of the contract to the best tenderer. The step involves in this process is entering a detailed undertaken based on the entire purchase to pay process (P2P) to ensure the cost and risk in the business is reduced (purchasinginsight n.d.).
7. Contract implementation and management is the last stage of procurement process. In this step, after awarding the contract to the suppliers based on the evaluation results, company would undergo regular review to monitor the cost and to ensure that the level of services mutually agreed by the users and the suppliers are maintained (Purchasinginsight n.d.).

2.2.5 Procurement tools

There are five key main drivers of supply management and procurement that are essential to enhance a successful business, and must be taken into account when making decision in a business organization. These are; cost, quality, time, reliability and technology. (Turner 2011.)

Turner (2011) further explained that in an outstanding and successful strategic supply management, concept, tools and resources used include;

1. Price analysis: This involves the comparison of prices between suppliers and against external benchmarks with no direct knowledge of supplier costs
2. Total cost analysis: it includes additional cost of a part (mean time before failure) like transportation, tariffs, special package, warehousing (inventory), and quality control.
3. Total cost of ownership analysis: it includes the total cost value associated with an item over the life span of that item. These costs include but are not limited to:
 - Purchasing price: amount of money paid for the item
 - Acquisition cost: all costs invested to acquire the item like employee time, Heat, electricity, fuel, telephone, building rent or cost,

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Internet and online procurement platforms and services, engineering and /or implementation costs, transportation costs, taxes, tariffs etc.

- Usage cost analysis: this is a cost associated with modifying or using the item of service such as receiving, stocking, storage, requisition, picking and shipping cost, removal and repair cost.
- End of life cost analysis: this includes of cost associated with end of life and disposal of product

4. Financial analysis: This includes the analysis of the supplier's or bidder's financial proficiency and capacity using Dun and Bradstreet report (D&B) that shows; credits, delinquency history and risk of failure or inadequacy by the industry. The analysis also includes investigating the annual report that shows the cash inflow and outflow, and as well as fiscal reports of the previous year and the plan for the fourth coming year.

5. Technical analysis: This includes the analysis of the physical characteristics of the item or service to increase reliability, lead time and as well meet the minimum organizational specifications.

2.2.6 Procurement policy

Procurement policy is the rules and regulations an organization set in place to efficiently govern the process of acquiring goods and services needed the organization (wisegeek.com). Procurement policy varies in different organizations. Companies, non-profitable organizations and as well as governmental organizations all have their own business procurement policies. However, business size, availability of vendors or supplier to make the required goods and services attainable, cash inflow are the factors that influence the formation of policy that govern purchasing procurement of a company. (Wisegreek.com.). For instance, European Union has some business policies based on the financial regulation (EU EURATOM) No 966/2012 of the European parliament and council, which is applicable to general budget of the union. Some of the policies are as follows:

1. Bankrupted suppliers or tenderers that have suspended business activities cannot be awarded contracts.
2. A supplying company whose authorized decision maker has being convicted or attainted of an offence based on their professional conduct cannot be awarded a business contract.
3. Tenderers that are not in conformity with their obligations relating to payment of social security contributions or taxes in accordance to legal provision of the country where they are established or entrenched cannot be awarded a contract.
4. A supplier, vendor tenderer that have been subjected to administrative amercement cannot participate in the procurement activities. (Eurojust.europa.eu.)

2.3 Supply chain management

According to the journal of business logistics (2001), supply chain management was defined as a strategic coordination of all business functions within a particular

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company and across the business within the supply chain with the sole aim of improving the performance of the companies involved. It can also be defined as a set of approach utilized to efficiently integrate the suppliers, manufacturers, warehouses and stores so that goods and services are produced and distributed at the right time, quantity and location to satisfy customers requirement. Also, the global supply chain forum defined supply chain management as the amalgamation of the main business process from the end users through the original suppliers that make provision for products, services and information which add value for customer and all the stakeholder involve (Lambert, Martha&Janus2001). Hence, the supply chain management has been identified to constitute of key main eight processes. These include; Customer Relationship Management, Customer Service Management, Demand Management, Supplier relation management, Order Fulfillment, Manufacturing Flow Management, Product Development and Commercialization and Return management.(Cooper, Douglas& Janus 1997.)

- Customer Relationship Management (CRM): Is the process that uses Product and Service Agreements (PSAs) to structure how the relationship with targeted customer is built and maintained in order to improve production processes and meet the customers demand and need (Cooper *et al.* 1997).
- Customer Service Management (CSM): is the process of designing how firms provides vital information like products availability, order status and many more to their customers (Cooper *et al.* 1997).
- Demand Management: Is the process that is structured to balance the customers demand and the company's supply capacity (Cooper *et al.* 1997).
- Supplier Relationship Management (SPM): is the process that uses PSAs between companies and suppliers to build and maintain relationship between them (Cooper *et al.* 1997).
- Order Fulfillment: it is the process that implements all necessary activities like manufacturing, logistics and marketing planto identify customer requirements and then design a strategy to meet the requirement (Cooper, Douglas& Janus1997).
- Manufacturing Flow Management: is the process that involves all the necessary activities required to establish manufacturing flexibility in a firm in order to satisfy the targeted markets (Cooper *et al.* 1997).
- Product Development and Commercialization: is the process that is structured to integrate the joint contribution of the suppliers and customers in the development and introduction of new products to market (Cooper *et al.* 1997).
- Return Management: is the process that involves disposal and recycling of products (Cooper *et al.* 1997).

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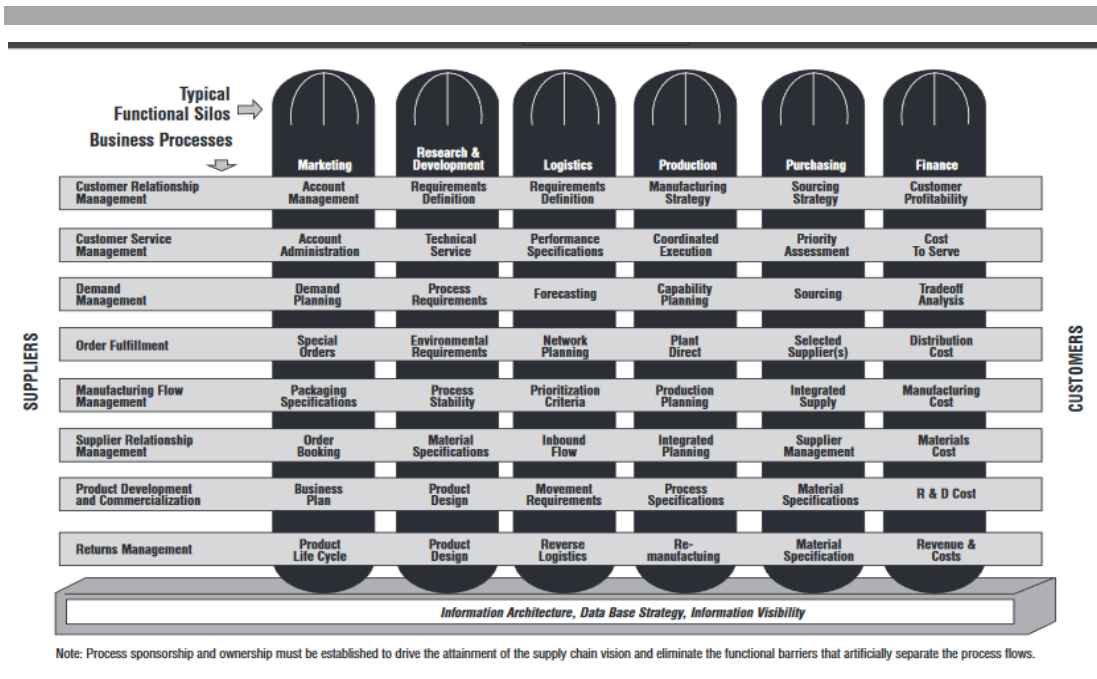


Figure 4: link between supply chain members in supply chain management. Adapted from Douglas et al. 2001

2.3.1 Relation between, procurement process, supply chain Supplier Relationship Management and Customer Relationship Management.

	SRM	SCM	CRM
Strategic	Strategic Sourcing	Product Design Supply Chain Design	Marketing Management
Tactical	Negotiation Management Contract Management	Master Planning Materials Planning	Selling Management Demand Forecasting
Operational	MRO Procurement POM Replenishment Programs	Production Scheduling Transportation Management	Customer Service Management Sales Order Management Promising
Execution	PO Execution (Monitoring, Receiving, Returns) PO Execution (Accounts Payable)	Warehouse Management	Sales Order Management Shipping Sales Order Management Billing

Figure 3: Strategic procurement process model adapted from (Sabri, Gupta & Beitler 2005).

- Supplier Relation Management (SRM): Process of effectively managing supply using several processes. Figure 2 above shows that in a strategic procurement processes supply relation management function is to sourcing for goods and contract negotiation for the company. (Sabari et al 2005.)
- Supply Chain Management (SCM): in a procurement process the main objective of SCM is to achieve balance between supply and demand through product design and supply chain design (Sabari et al 2005).

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- Customer Relation Management (CRM): is the Process of managing customer relationships by effectively supporting marketing, sales demand forecasts, sales order promises and management, and service processes (Sabari et al 2005).

3 RESEARCH METHODOLOGY

Research methodology can be defined as a rule for reasoning, i.e. an act of logically gaining insight of a particular project. Research methodologies are rules for communication, by reporting the procedures adopted in carrying out a work. Hence, others must be able to follow the procedures to achieve the same result or they can criticize the approach used and the reported findings.(Pervez & Kjell 2005.) There are several reasons for carrying out a research, these include competitor analysis, environmental analysis, customer's satisfaction, new market entry and many more.

3.1 Research purpose

In the fourth edition of research methods for business students, the three main purpose of research works was described as exploratory, descriptive and explanatory(Mark, Philip and Adrian 2007).

An exploratory research study is a means of seeking new insight to find out what is happening (Ghauri& Gronhaug, 2010). Exploratory research requires different skills such as the ability to be able to observe, get information and construct theoretical explanation. This research can be carried out using three main methods like; a review of literature, interview of the subject experts and conduction of focus group interview. (Saunders, Lewis & Thornhill2007.)

Descriptive study simulates an accurate profile of a person, an event or a situation. In this type of study, the research is structured based on the previous understanding of the research problem (Saunders et al.2007).

Explanatory research study explains relationship between variables. This study is based primarily on studying a situation or a problem in order to explain relationship between variables (Saunders *et al.*, 2007).

This study focus on the exploratory approach, using the previous and present understanding of the problems been faced by blissful minds Nigeria limited to improve the business state of the company than before the commissioning of the project.

3.2 Research methods

Research method is the systemic and orderly collection of data to gather information from them, using the information derived to address the research problem or to answer the research question. There are generally two methods of research approaches; quantitative and qualitative. The method and technique that is suitable

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and use for a research depends on the research problem and the purpose of the research work. (Jankowicz 1991.)

Quantitative is a formalized and well structured research method that generalizes and studies the research problem extensively. While qualitative research methods are less structured and more intense than questionnaire based interview. In this kind of research method there is more and longer relationship with the respondent to get in depth of the situation. (Kumar, 2000.)

For the purpose of this study, both quantitative and qualitative research approach was used. In order to get insight information about BmNL, Skype interview and one on one visit to the company were the methods used to analyze this company and its environment. Semi-structured interview was conducted with some selected stakeholders who can give relevant information based on their expertise and experience. Interviews were carried out through different mediums. Emails were sent to the correspondence at the initial stage as a form of introduction, followed by Skype interview with the interviewees and finally visitation for face to face interview.

All the interviewees reported that BmNL has been unable to make as much profit as planned before the establishment of the company, they also discussed about the inaccessibility of vital information that can boost their production and profit making, which has resulted into low level of business performance compare to other company producing the same products as BmNL. Hence, they described and interpreted the challenge facing the company as raw material related. The raw materials used in the manufacturing of their products (Bread and bottle-water) are; flour for baking bread, plastic bag and bottle for packaging and many more. They experience problems in terms of raw material availability, high price of the raw material which has increased their cost of production and poor raw material delivery which hinders production at the appropriate time.

3.3 Procurement process designed for BmNL

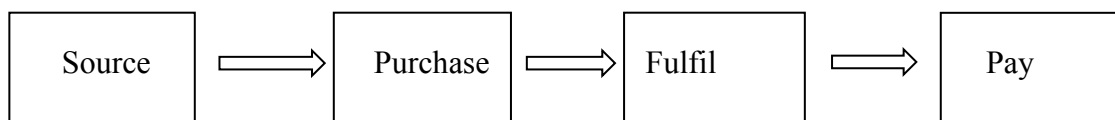


Figure 6: showing the raw material procurement strategy designed for BmNL (own design)

Since it has been identified that the problem been faced by BmNL is rawmaterials based,the procurement process designed for this company is illustrated in figure 5 above, where one step is taken before the other to achieve an optimum result. Each of the steps taken is explained as thus;

- Source: BmNL integrated the procurement strategy into their system and begins by identifying their company's basic raw material requirements, which is flour and the potential flour suppliers. They requested for price from each reliable

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suppliers and compare to select the best candidate based on lower cost, supplier capacity and just in time delivery.

- Purchase: in BmNL, the purchasing officer who is in charge of the raw material in stock send a purchasing request to the finance manager. The finance manager approves the request and issue a purchasing order that includes the amount of flour they needed from the suppliers in tons and send to the supplier.
- Fulfill: The purchase officer inspect and notes if the goods delivered are in accordance with the mutual agreement between the company and the supplier. He then records the delivered goods into the company's inventory and sends the delivery order to the finance manager who makes payment to the supplier.

4 RESULTS AND DISCUSSION

After the stakeholders have identified the problem of BmNL as raw material related, procurement performance goals and targets was set. A procurement performance indicator in table 2 below was developed to monitor the procurement strategy designed for the company, and to also provide key information about the different aspect of procurement system including cost, quality, quantity, timeliness of supply and demand. After designing the procurement process for BmNL, the designed process was used and observed for a period of 6 months. Monthly stakeholders' meeting was conducted to collect data through skype interviews and email reports.

Table2: Showing procurement performance indicator

No	Indicator Name	Description	Performance category
1	Raw material price variance	Percentage price reduction for focused raw material	Cost
2	Supplier performance	A) Percentage of raw material supplied in compliance with contract criteria	Quantity
		B) Percentage of orders delivered on time	Timeliness
3	Expiration management	Percentage value of products supplied to consumers in good condition	Quality

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1. Raw material price variance: Because the cost of procuring raw material by BmNL is very high, a target was set to reduce the cost of procuring raw material by 10% or above. After designing procurement process for BmNL, this indicator was used to measure their cost of acquiring raw material for the period of 6 months (Mar.2015-Aug. 2015).

Table 3: showing cost of flour before and after implementing procurement strategy

Month	Cost of flour before procurement strategy/Bag	Cost of flour after adoption of procurement Strategy/Bag	% Cost reduction
March	18, 000	16, 500	8.3
April	18, 000	16, 300	9.4
May	18, 000	16, 000	11.1
June	18, 000	15, 200	15.6
July	18, 000	15, 000	16.7
August	18, 000	15, 000	16.7

2. Supplier performance: Although BmNL has no record of supplier's performance before the adoption of the procurement strategy; this is because raw material is only purchased at the time of need. After implementing this strategy into their business, a baseline target of 100% was set for supplier's performance in terms of raw material quantity and delivery. This indicator helps BmNL to measure the performance of supplier's compliance by monitoring and documenting the supplier performance. This also gives information on whether the suppliers are reliable for future business. They were also able to estimate the quantity of raw material that can sustain their production monthly. They had no idea about the raw material they used for their monthly production before the procurement process was designed for them. The information was extracted from order receipt confirmation, purchase order delivery schedule and reports of goods received.

3. Expiration management: InBmNL some of the bread produced daily went bad and was disposed of due to unavailability of materials like plastic bags and non delivery to consumers at the appropriate time. Some of BmNL stakeholders interviewed said the total value of bread produced in a month was about NGN600, 000 and a minimum 8% were thrown away due to mismanagement. The production manager provided some information in Table 4 about the monthly value of bread that wasted during six months (Sept. 2014-Feb. 2015) before the implementation of the procurement designed for the company.

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Table 4 Product (bread) waste before procurement process.

Month No	Month	Monthly value of production (NGN)	% Of bread waste
1	September	600,000	10
2	October	600,000	12
3	November	600,000	12
4	December	600,000	13
5	January	600,000	13
6	February	600,000	16

After implementing the procurement process, product wastage for a fixed production value was monitored for six months using the following formula:

$$\frac{\text{Total value of expired product (Bread)} \times 100}{\text{Total value of bread produce monthly}}$$

Table 5: Monthly value of wasted products after implementing Procurement strategy

Month No	Month	Value of product (NGN)	Value of expired product (NGN)	% Reduction of expired product
1	March	600,000	36,000	6
2	April	600,000	30,000	5
3	May	600,000	24,000	4
4	June	600,000	24,000	4
5	July	600,000	18,000	3
6	August	600,000	12,000	2

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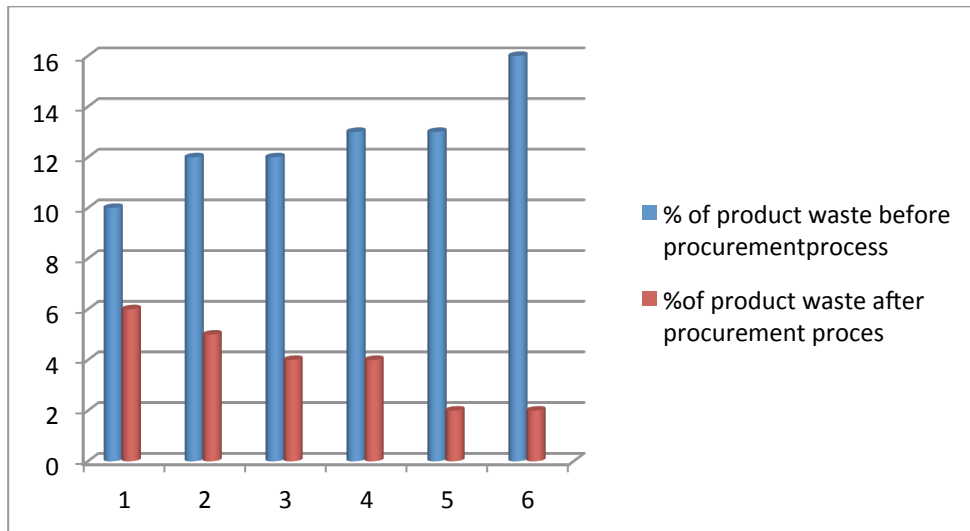


Figure 7 Percentage of product waste before and after the procurement process

The bar chart compares the percentage of product (Bread) wasted six months before the procurement process and six months after implementing the procurement strategy as it has been indicated in table 4 and 5 above. The figure illustrates that the percentage of bread thrown away due to mismanagement like unavailability of material keeps increasing for the period of six months before BmNL adopted procurement system while the value keeps decreasing after the system has been implemented. Also the chart shows that the value of waste production after six months has drastically reduced from 16% to 2%, which is about 8 times reduction.

Table 6 BmNL business state after the implementation of the procurement strategy

Before procurement process design	After procurement process design
Fluctuation in supply of raw material	Raw material security
Inadequate production capacity	Increased production capacity
No base line for raw material in stock	Base line for stock developed
No lead time	Lead time developed
Delayed supply/ distribution of products to customers	Eradication of downtime in products distribution to customers

These were gathered during a period of six months and the results were tabulated. From the analysis it was seen that BmNL had experienced a tremendous reduction in the level of fluctuation in raw materials availability and supply from their vendors, and this had thus increased their production capacity. As a result, they were able to eradicate downtime in product distribution to their customers based on requirement at the right time. It can also be seen that a lead-time reduction was experienced, which has increased their

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knowledge and awareness of the right time to place and receive orders. As a result, BmNL has improved its status in meeting-up their consumer's demands and supply.

5 CONCLUSION

Based on the analysis and the current status of Blissfulmind Nigeria Limited, procurement strategy is a tool every organization should develop and implement to improve their operational performance in terms of reducing the cost of acquiring raw material for production, meeting the customers' requirements based on quality and just in-time delivery and as well as to improve the reliability of the organization. Although the process of implementing procurement process is long, if implemented properly it will explore the supply market opportunities, utilize the best resourcing strategies to provide the best possible supply outcome to the customers, stakeholders and the organization itself.

5.1 Limitations of the study

Because the procurement tools used to conduct the research project were designed primarily for BmNL a small scale company in a developing country like Nigeria, the tools which is effective based on the kind of end product and the limited resources attainable by this company within the short period the research project was conducted. However, this study may not be comprehensive enough for medium size and large business organizations.

5.2 Recommendations for further research

This project was based on a small - scale perspective in a developing country. Further research can be conducted to compare the effects of designed procurement tools in the optimization of larger companies in different countries. Also the larger part of the study can be based on the companies' inventories.

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