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Obtaining procurement value chain; a tool for completing operative organizational goal

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Abstract

Value chain management (VCM) is more than a theory. It is a strategic business approach that is helping a growing number of businesses increase their long-term competitiveness. It would be extremely difficult, to achieve such competitiveness by operating as an individual business within fragmented value chain. The primary purpose of this research is to address procurement and value chain impact on organizational performance. The project provides an informed, objective perspective on VCM by demonstrating how value chains and procurement operate at the business level rather than the sector or sub-sector level.

Major changes are currently taking place within procurement functions of manufacturing firms. Procurement is shifting its focus from daily purchasing activities to long term, value-adding procurement and supply chain activities. At the same time, it is responding to the challenges and opportunities of electronic procurement (e- procurement), which refers to the utilization of the internet to buy and sell products and services. The responsibilities of procurement have changed over the last few decades, procurement focused heavily on the transactional elements of the purchasing process. Procurement was accepted as a support function that provides for the sourcing needs of other departments within the organization.

Keywords: Procurement & The Value Chain; A Tool For Achieving Effective Organizational Goal

Introduction

Many organizations today are forced to increase their global market share in order to survive and sustain growth objectives. At the same time, these organizations must defend their domestic market share from international competitors. The challenge is how to expand the global logistic and distribution network, in order to ship products to customers who demand them in a dynamic and rapidly changing set of channels. Strategically positioning of inventories is essential, so that the products are available when the customer wants them.(Handfield, et al. 2002)

Changes in the economic and competitive environments over the last twenty years have resulted in new ways of thinking within companies, in their search for competitive advantage. Many changes have occurred in the way that firms view the function of Purchasing. The movement away from the philosophies of mass production has led to new approaches to the traditionally operational task of purchasing; this has resulted in the concept of purchasing as a part of the strategic function of 'supply chain management', which is aligned to the overall corporate strategy. (Finch, 2004)

According to (Knudsen, 2003), increased global scope of operations, increased usage of outsourcing, and the buyers' increased dependence on suppliers' capabilities, make procurement work a vital undertaking for corporations to master.

Within the last ten years, the lowly, back-end procurement process has been transformed into a strategic resource. Procurement is now seen not only as a strategic player in the value chain, but as a major driver in the extended supply chain. There are many reasons for its popularity. Specific drivers may be traced to such areas as trends in global sourcing, emphasis on time to market, product quality based competition, customer uncertainty and the need to improve bottom-line costs. (Kalakota & Robinson, 2001)

Every industry player has a value chain, which in some parts may have some connections with others. Porter states that, suppliers have value chains that provide the purchased inputs to the firm's chain; channels have value chains through which the firm's product or service passes; buyers have value chains in which the firm's product or service is employed

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(Porter, 1985: P22). In the value chain context, an internal value chain within the boundaries of an organization and an external value chain where partners perform activities can be identified. (Chaffey, 2004).

According to Charles C Prorier in the supply chain manager's problem solver, to get a firm to adopt Value Chain for organizational effectiveness, and use their listed tools collaboratively, companies like the Electricity Company of Ghana (ECG) must re-evaluate their position in an industry and market, find what further improvements are feasible, determine just what is needed to change the organizational mindset to take a leadership position.

Literature Review

Procurement encompasses all activities involved in obtaining goods and services and managing their inflow into an organization (Segev, 1998). Traditionally the corporate function of procurement is divided into strategic and operational tasks. Whereas the strategic tasks include sourcing activities, supplier management, and design and implementation of buying procedures, operative tasks embrace all transaction-oriented activities such as the excitement of purchase orders. (Kaufmann, 1999; Gebauer and Segev, 2001).

Procurement is the term most commonly employed to refer to the purchasing of goods and services for the day-to-day operation of a business. Procurement is an essential part of any organization's ability to function effectively and efficiently. (Steven R Leonard, 2000). Procurement management includes the processes to purchase or acquire the products, services, or results needed from outside the organization to perform the work. Procurement management also includes administering any contract issued by an outside organization (The Buyer) that is acquiring the organization from the performing organization (the seller), and administering contractual obligations placed on the organization by the contract. (George Belev, et al., 2004).

The effective procurement management should acknowledge complexity, find the right skills & organize the work, develop a sound strategy, manage time effectively, Follow sound bid evaluation method and develop a smart, fair contract. Effective procurement requires organized teamwork: authorities, responsibilities, schedule, and resources. (Eduardo Talero, 2004).

The term public procurement refers to the purchasing by governments and local authorities of the works, goods and services they need to operate ranging from simple office items to sophisticated high-tech equipment. (Public Procurement Research Group). With the day-to-day transaction traffic delegated, the focus will be on training and education, performance measurement, dispute resolution, system oversight, streamlining of the acquisition and business process, and embedding the best of supply chain management techniques in statewide policy and process. Some of this cannot be done well, or done at all, without incorporating procurement reform into Government law to institutionalize change, (Rosa Wilkinson, 2005).

In many cases, increased costs and delays in project implementation can be attributed to lack of familiarity with the procurement procedures of the funding agencies combined with inadequate command of the essential day-by-day "business skills" needed to manage international procurement operations, (ILO and WB). At each of the procurement process, failure can almost be built in if there is insufficient attention paid to the process. It helps to consider each stage of the process and to analyse the possible causes of failure as a first step to taking preventative action, (Stephen Cannon, 2006).

Overview of Public Procurement

The Public Procurement Law, 2003 (Act 663) is a comprehensive legislation designed to eliminate the shortcomings and organizational weaknesses which were inherent in public procurement in Ghana. The government of Ghana, in consultation with its development partners had identified the public procurement system as an area that required urgent attention in view of the widespread perception of corrupt practices and inefficiencies, and to build trust in the procurement system. A study by the World Bank (2003a) reported that about 50-70% of the national budget (after personal emoluments) is procurement related. Therefore an efficient public procurement system could ensure value for money in government expenditure, which is essential to a country facing enormous developmental challenges.

To ensure sanity and value for money in the public procurement landscape, the government of Ghana in 1996 launched the Public Financial Management Reform Programme (PUFMARP). The purpose of the programme was to improve financial management in Ghana. PUFMARP identified weaknesses in the procurement system. Some of these weaknesses included: lack of comprehensive public procurement policy, lack of central body with technical expertise, absence of clearly defined roles and responsibilities for procurement entities, absence of comprehensive legal regime to safeguard public procurement, lack of rules and regulations to guide, direct, train and monitor public procurement. The programme also identified that there was no independent appeals process to address complaints from tenderers. These findings led to the establishment of the Public Procurement Oversight Group in 1999. The aim of this group was to steer the design of a comprehensive public procurement reform programme which led to the drafting of a public procurement bill in September 2002 that was passed into law on 31 December 2003.

Procurement Cycle in Ghana

Procurement cycle is the direction of the procurement process. It establishes the main activities required at every stage of the procurement process. It does not only direct the approach to the implementation of the procurement activities but also provides a road map for monitoring and evaluation of procurement activities effectively

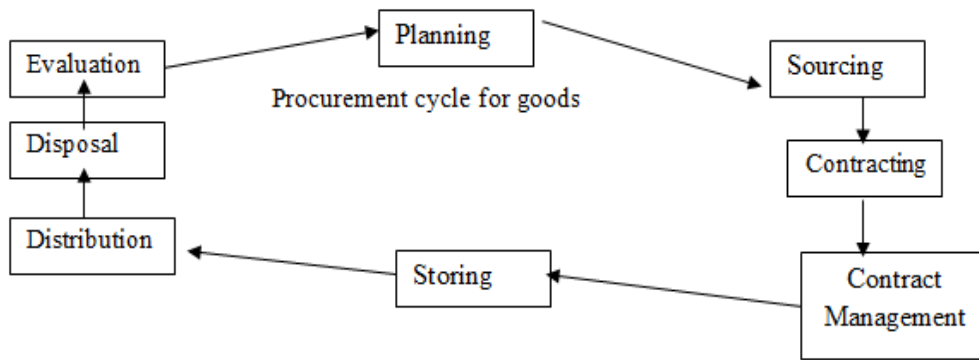


Fig 1: (Procurement Cycle)

Source: (Public Procurement Act, 2007).

From figure 1, it is seen that procurement starts from planning and ends at evaluation. It indicates the key activities needed at every level in the procurement process. It does not only give the direction of implementation process but also a yardstick for monitoring and evaluation. At the planning stage the following activities are required: contract packages, source of fund, cost estimation, technical and performance specification. Sourcing stage deals with procurement method, supply sources, criteria for evaluation and negotiation.

At the contracting stage, the following activities are needed: notification of award, contract document and communication channels. At the contract management stage, the following activities are considered: selection of a contract manager, allocation of responsibilities and performance benchmarks, communication channels, expediting and dispute resolution and contract modification. Storing activities include inventory control and management, storage requirements and material handling. Distribution includes available storage and transportation facilities; these facilitate the delivery of goods, works and services. Evaluation stage activities include review of performance of procurement function, to assess compliance, efficiency and effectiveness and procurement audits.

Measuring Procurement Effectiveness

Measuring procurement effectiveness can be explained through three important factors; the effect on organisation's economic performance, the effectiveness of supplier relationship management and how procurement correlates with the organisation's corporate strategy.

Effect on organization's performance

The development of procurement function and its effects on organisation's performance depend on two factors; the monetary value and the cost saving opportunities. Especially when the value and volume of the purchases is high, the opportunities to save money should be utilised. Efficient development of the procurement function can prove to be very financially profitable and result in higher profits for the organisation. (Iloranta 2008.)

In the simplest terms, defining the value of the purchase is done by calculating the prices of the purchased goods and services together which will result in the total monetary value. (Iloranta 2008.) Procurement activities have a relation to the organisation's economic performance. This can be divided to effects on turnover, gross profit,

efficiency, total costs and organisation's equity. All of these categories correlate directly with how the supplier relations are controlled and utilized for the benefit of the organisation. (Iloranta 2008.)

When the outsourcing activities account to a large part of the turnover, the influence of procurement function in organisation's economic performance is also bigger. How the procurement is handled in an organization becomes highlighted when it has an effect on the competitive advantage.

This concerns situations where the prices of materials fluctuate in short term, innovation is involved with the purchased products or the competition of the end-products is intense. (Iloranta 2008.)

Choosing the supplier, product or subcontractor has an essential role in the potential growth of turnover. How the organisation's brand is perceived in the market affects the sales numbers. Sometimes the buyer can feel that they are receiving a better product because of a good brand image. This means that the supplier can actually have a positive impact on the decision made by the buyer. It's important not to forget the power of word of mouth marketing. It's a factor that can determine whether your product gets chosen over the competitor's one. (Iloranta 2008.)

Selecting the right supplier can help the organisation to access the newest high technology that will help you to have an edge in sales. For example when an organisation is starting its international business operations, it might be a crucial decision to select local suppliers to ensure its market share in the market. The growth of gross profit can be explained through cost reduction and increased turnover. (Iloranta 2008.)

The faster tempo of the business life has a direct impact on the effectiveness of procurement function. The faster rhythm correlates to faster flow of goods and cash. The competition in the market is growing and largely depends on how the supplier network is organised and utilized. The time frames for product development and product launch are continually shortening.

The ability to use and direct the supplier markets for the benefit of the organisation has an important role on the organisation's success. (Iloranta 2008.)

The growing needs from the customers for product specialization and tailoring need to be answered without expanding the time frames for delivery.

It's often thought that the production of products limits the delivery process. This is not the case, the issues concerning

supply chain especially moving product raw materials or semi-finished products proves to be a factor that prolongs the delivery time for customers. The organisations that can cut down the time spend for supply chain process is more likely to succeed. (Iloranta 2008.)

Procurement has direct and indirect costs that clearly affect the effectiveness. The organisational structure, division of work and operation efficiency; are components that modify the effectiveness of procurement function. The procurement processes and procedures have a close relation to other functions on the organisation and on their efficiency as well. As an example, improvements in quality issues and on the delivery times reflect to the total costs on the logistics and production side. Reducing the total costs can be perceived as reduced quality of products. Cost efficient procurement doesn't imply that the quality of products would decrease. (Iloranta 2008.)

The efficient use of procurement methods is an answer to releasing the organisation's capital. Controlling financial assets can be executed by balancing the payment terms between the sales of assets and purchases of debt providing the economically most advantageous solution. Correct controlling of components like investment and property management influences the release of capital when the knowhow of procurement staff is used properly. This will result in reduction of invested capital and depreciation of products. Using the supplier network as a tool to outsource parts of production or supply chain to supplier will give an opportunity to release capital. This won't change the capital structure of the organization in any way. (Beer 2011,).

Value Chain

According to Christopher (1992) suppliers are looking for strategies that will provide superior value in the eyes of the customer. Porter (1985) introduced the concept of a value chain. Organisations that have successfully introduced a value chain have gained a competitive advantage (Christopher, 1992).

According to Christopher (1992) the competitive advantage of any supplier cannot be understood by merely looking at the organisation as a whole. Organisations performs many discrete activities in designing, producing, marketing, delivering and supporting its product.

Each different activity within the organisation contributes to the cost position and competitive advantage of an organisation. The value chain integrates all these activities and an organisation can gain a competitive advantage by performing these activities more cheaply than its competitors.

The value chain suggests that an organisation's success is affected by achieving a competitive advantage through cost leadership and differentiation (Saunders, 1997).

The value chain can be categorised into two main activities primary activities and supporting activities. Inbound logistics, operations, outbound logistics, marketing and sales and services form the primary activities while infrastructure, human resource management, technology development and procurement form the secondary activities. The support activities support each of the primary activities within the organisation. An organisation will gain a competitive advantage in the way it organises and performs these activities within the value chain. An organisation can present its customer with superior value in a unique way that creates greater buyer value by effectively

integrating (Christopher, 1992).

According to Saunders (1997) the supply chain is the linking of all the value chains of the organisations that make-up the supply chain. The final customer becomes the recipient of the value of the end product or service. The final customer can be seen as receiving a bundle of values from the different organisations within the supply chain.

Role and importance of procurement

Changes in the economic and competitive environments over the last twenty years have resulted in new ways of thinking within companies, in their search for competitive advantage. Many changes have occurred in the way that firms view the function of Purchasing. The movement away from the philosophies of mass production has led to new approaches to the traditionally operational task of purchasing; this has resulted in the concept of purchasing as a part of the strategic function of 'supply chain management', which is aligned to the overall corporate strategy. (Finch, 2004)

According to (Knudsen, 2003), increased global scope of operations, increased usage of outsourcing, and the buyers' increased dependence on suppliers' capabilities, make procurement work a vital undertaking for corporations to master. Within the last ten years, the lowly, back-end procurement process has been transformed into a strategic resource. Procurement is now seen not only as a strategic player in the value chain, but as a major driver in the extended supply chain. There are many reasons for its popularity. Specific drivers may be traced to such areas as trends in global sourcing, emphasis on time to market, product quality based competition, customer uncertainty and the need to improve bottom-line costs. (Kalakota & Robinson, 2001)

According to (Kalakota et al, 2001), the purchase of goods and services represents the single largest cost item for any given enterprise. It is estimated that for each dollar a company earns on the sale of a product, it spends about \$0.50 to \$0.60 on goods and services.

Most organizations spend more than 30% of their income on purchasing goods and services (Gebauer, and A. Segev, 1998). It is even possible that about 20% of an organization's purchases constitute 80% of the total purchase value. (Nam, 1998)

(Mattsson, 2000: 224) refers to a study made by AT. Kearney on European and North American manufacturers where it was found that in 1985, 30% of the total manufacturing cost stemmed from purchased material and services. In 1995, the figure rose to 55% and for 2005 it was estimated to rise to 85%.

Therefore, the function of procurement has gained an increasingly greater importance especially in manufacturing organizations. The reason for this is that in general purchased materials and services take up the largest part of the cost of goods sold. It has been proven on numerous occasions that even small savings on purchasing related expenditure can have a significant effect on the total cost. (Van Weele, 2000).

Procurement encompasses all activities involved in obtaining goods and services and managing their inflow into an organization (Segev et al, 1998). Traditionally the corporate function of procurement is separated into strategic and operational tasks.

Whereas the strategic tasks include sourcing activities, supplier management, and design and implementation of buying procedures, operative tasks embrace all transaction-oriented activities such as the excitement of purchase orders. (Hoppen, Fricke, König, Pfitzer, 2002).

Businesses buy a diverse set of products and services and the purchases can be classified into many manufacturing inputs and operating inputs. Purchasing can be classified into direct material and indirect material. Manufacturing (direct material) inputs are the raw materials and components that go directly into a product or process. (Kaplan and Sawhney, 2000).

Direct procurement refers to the purchasing of goods and services that immediately enter a manufacturing process, such as the parts that are assembled. (Gebauer and Segev, 2001).

Compared to direct goods and services, the procurement of indirect items covers a wider range of products, typically contains a larger number of buyers (possibly every employee), and is much less predictable with respect to buying volume and frequency. (Hoppen et al, 2002).

Purchasing and Procurement

The purchasing and procurement have been almost used interchangeably. However they differ significantly in their scope, purchasing refers to the buying material and all activities associated with the buying process. Electronic purchasing addresses only one relatively minor aspect of procurement problems companies face. Procurement on the other hand, is broadly defined to include a companies requisitioning purchasing, transportation, warehousing and in-bound receiving processes. Recent procurement strategies focus on restructuring the entire order-to-delivery process rather than on specific tasks within the process. The new procurement models leverage a nearly ideal combination of volume advantage, flexible contracts and valuable supplier's alliance, along with decentralized and user-responsive purchases. (Kalakota and Robinson, 2001). Croom also distinguished between purchasing and procurement. In his article purchasing was classified as a supplier-facing, boundary spanning activity, and procurement defined as the total process involved in the identification, specification, co-ordination and determination of an organization's resource needs. Then, he classified the purchasing activity as a subset of supply chain procurement. (Croom, 2001).

Direct and Indirect procurement

Most purchasers and industrial marketing researchers support the notion that organizational buying activities vary according to the type of product bought.

According to Chaffey (2004), there are two broad categories of procurement: those that relate to manufacturing of products (production-related procurement) and operating or non-production-related procurement that supports the operations of the whole business and includes office supplies, furniture, information systems, maintenance, repair and operating (MRO) goods and a range of services from catering, buying travel, and professional services such as consulting and training.

According to Wee (2002: P22), purchased materials and services can be grouped into the following categories:

- Raw materials;
- Supplementary materials;

- Semi-manufactured materials;
- Components;
- Finished products;
- Investment goods or capital equipment;
- Maintenance, repair and operating materials (MRO items);
- Services.

In the above classification, components are manufactured goods which will not go through additional physical changes, but which will be incorporated in a system with which there is a functional relationship by joining it with other components. They are built into an end product. Examples are headlight units, lamps, batteries, engine parts, electronic parts and transmissions. A distinction can be made between specific components and standard components. Specific components are produced in according to design or specification of the customer, whereas, standard components are produced according to specification of the supplier. Most of these items can be characterized as being easily describable (Wee, 2002; Hoppen et al, 2002).

Wee (2002), states that the procurement function aimed at the support activities may be very different in character. Some of the purchases to be made are routine purchases (MRO-supplies) and may be repetitive and low in value. Other purchases may have a project character and may be unique and high valued (investment goods, capital equipment, buildings). In general, this type of purchases will be referred to as nonproduction buying or general expenses. They may be classified into: MRO-suppliers, investment goods and services. For maintenance, repair and operating (MRO) supplies, the internal processes of procurement are typically costly and poorly coordinated. (Croom, 2001; Wee, 2002).

Direct procurement addresses all components and raw materials that are used in the manufacturing process of a finished product to make the products that are core to the business, such as sheet metal, semiconductors, and petrochemicals, whereas indirect procurement focuses on products and services that are neither part of the end product nor resold directly. (Jaworski and Rayport, 2001; Puschmann and Alt, 2005)

Direct materials or manufacturing inputs vary by industry, company position in the supply chain, and types of products sold is usually purchased from industry specific or vertical suppliers and distributors. The goods also tend to require specialized logistics and fulfillment mechanisms. Direct procurement generally refers to the purchasing of items that immediately enter a manufacturing process, such as the parts that are assembled into a car or computer. Non-productions or operating inputs are items that business needs to run day-to-day business operations. (Kaplan and Sawhney, 2000; Kalakota and Robinson, 2001; Jaworski and Rayport, 2001).

Indirect materials or operating goods tend not to be industry specific, most business need computers, paperclips and cleaning services. These products are purchased from horizontal suppliers, suppliers with a broad product program, and are more likely to be shipped through generalists. (Jaworski and Rayport, 2001; Puschmann and Alt, 2005).

Materials Management

According to Slack et al (1995: 527) materials management is the concept that integrate the flow of materials within the organisation and originate from the purchasing function. Purchasing initiate the flow of materials. Material flows through the organisation and out to immediate customers.

Materials management includes the functions of purchasing, expediting, inventory management, stores management, production planning and control and physical distribution management

Materials management can be seen as a means of reducing total cost associated with the acquisition and management of materials. The stages of materials movement through the organisation are buffered by inventory. In many organisations where the integrating concept is not in place, different managers manage the different stages. The result of this separate functional management of materials is often high inventory levels. This high inventory levels increase the lead-time of moving materials through the system, time is wasted while materials are held in inventory. Materials need to be purchased much earlier to ensure that they are available at the start of production. It is difficult to control the flow of materials and to keep track of the materials, because materials can be located in many different places. Organisations need to introduce the materials management concept to control the flow of materials and give the responsibility of the whole materials flow and information flow to one part of the organisation. This will enable organisations to co-ordinate, reduce and remove some intermediate inventories. This speed up the operations reduces lead-times and reduces the time need to purchase raw materials, which in turn reduce the forecasting time. This improvement will enable organisations to have more accurate schedules and increase effectiveness of the organisations planning (Slack et al, 1995: 528).

Logistics Management

According to Slack et al (1995:529) many organisations link the logistics function with the flow of finished goods downstream from the plant to the customers; this function in the modern organization is more relevant to 'physical distribution management'. Logistics include the total flow of materials and information. Slack et al (1995:529) explain the difference between logistics and materials management as follows: materials management does not include the physical distribution of the finished product, where as logistics do include the physical distribution of the finished product. Both these concepts form an integral part of supply chain management. Any supply chain is built on two basic elements, which is information flow from the customer and material flow to the customer. Logistics management involves both these elements.

According to Christopher (1992:10) the mission of logistics management is to plan and co-ordinate all the activities that are necessary to achieve the desired levels of service and quality at the lowest possible price. Logistics management (Figure 3.5) can be seen as the activity within an organization's value chain that link the market place and the operating activity on the demand as well as on the supply side. Logistics management begin with the purchasing of raw materials and end with the supply of the finished product. Logistics management involves the satisfying of the customer's demand through the co-

ordination of materials and information flow via the operation to the end customer. In the past for example the manufacturing and marketing activities have been seen as separate activities within the organisation with separate objectives and separate goals. In today's highly competitive environment the manufacturing and marketing activities can no longer function as separate activities. These activities must be integrated to form a lean and cost effective organisation with similar objectives and goals (Christopher, 1992:10).

Supply Chain Management

According to Slack, et al (1995: 195) no operation or part of an operation can exist in isolation, every operation is part of a larger interconnected network of operations. The major resources of this network are suppliers and customer. These also include suppliers' suppliers and customers' customers and so on. It is important for organisations to understand their position in this network and to develop new strategies and improve current strategies to be competitive in the global market.

These strategies will help organisations in determining to what extent they need to vertically integrate with other organisations in the network, the location of each organisation within the network and the capacity of each part of the network.

It is important to position the organisation in the context of all the other organisations it interacts with of which some are its suppliers and some of which are its customers. Materials, parts, assemblies and ideas all flow through a network of customers-supplier relationships within all of these organisations. On the supply side an organisation has its suppliers of parts, information or services. On the demand side an organisation has customers (Slack, et al 1995: 1996).

Slack, et al (1995: 511) identified the importance of viewing the supply as a whole they compare the supply chain with the flow of water in a river: organisations closer to the original source of

supply are described as being 'upstream' while those located closer to the end customer are 'downstream'. Purchasing, supply and physical distribution relate to only one part of the whole supply chain, upstream and downstream respectively. Logistics and materials management includes larger parts of the supply chain while supply chain management includes the whole chain.

Heizer and Render (1999: 416) recognise the strategic importance of the supply chain, as organizations strive to increase their competitiveness via product customization, high quality, cost reduction and speed to the market, they need to place added emphasis on the supply chain. The key to effective supply chain management is to make suppliers 'partners' of the organisation's strategy to satisfy an ever-changing marketplace. Strategies of low cost or rapid response demand different actions from the supply chain. These strategies can be defined as strategies of differentiation. Heizer and Render (1999: 417) emphasize the importance of achieving integration of its selected strategies up and down the supply chain. As more and more companies enter global markets expanding their supply chain becomes a strategic challenge.

According to Christopher (1992: 184) higher levels of turbulence in the business environment has led to organisations being much more customer focused than ever

before. Traditional organisations have grown heavy with layer upon layer of management and bureaucracy, such organisations has little change of remaining competitive in the new global marketplace. Removing these layers of management and forming flatter organisational structures is not sufficient. It must be accompanied by changing the networks and systems that deliver service to the customer. Christopher (1992: 185) identifies the process of developing a shared supplier-customer vision. The purpose of this vision is to clearly indicate the basis whereby the business intends to build a position of advantage through closer customer relationships. It is evident throughout the research of Christopher that the development of strong customer-supplier relationships up and down the supply chain is important for survival in an increasing global market.

Christopher (1992: 204) identifies the benefits of managing a supply chain effectively by using the basic philosophy of co-makership. Through co-makership the supplier is considered an extension of the customer's factory with the emphasis on continuity and a 'seamless' end-to-end pipeline.

- Shorter delivery lead-times
- Reliable delivery promises
- Less schedule disruptions
- Lower stock levels
- Faster implementation of design changes
- Fewer quality problems
- Stable, competitive prices

Supply Chain Strategies

Christopher (1992: 2) emphasise the importance of having effective supply chain strategies in place which will provide organisations with a major source of competitive advantage. These strategies will give organisations a superior position over its competitors in terms of customers' preference.

Seeking a sustainable and defensible advantage has become the concern of every manager who is alert to the realities of the market place. Good products will no longer sell themselves, neither is it advisable to imagine that success today will carry forward into tomorrow. Since 1994, the motor industry has become more and more competitive, with international organisations participating in the local market. This has forced local suppliers to realign their supply chain strategies to stay competitive.

Wild (1995: 487) identify three stages for developing supply chain strategies:

Evaluating the competitive environment.

- Understanding the market characteristics;
- examine current strategies;
- Decide on market-winning strategies.

Review existing supply chain operations

- Develop a cost model;
- identify those activities which can have a significant impact on customers;
- list improvement techniques for these activities

Supply chain integration

Supply chain integration means the co-operation between various functions in the supply chain. The key processes that can be integrated across the supply chain are: customer

relationship management, customer service management, demand management, order fulfilment, manufacturing flow management, procurement and product development. In some cases it might be sufficient to integrate only one of these processes. (Sillanpaa 2012).

The supply chain integration can be defined as (Sillanpaa 2012): the degree to which an organisation strategically collaborates with its partners and manages intra- and inter-organisational processes in order to achieve efficient and effective flows of products, services, information, money and decisions.

The supply chain integration can be divided into supply and demand integration. According to Treville (2004), supply integration includes just-in-time (JIT) delivery, reduction of the supplier base, evaluating suppliers based on quality and delivery performance, establishing long-term contracts with suppliers, and the elimination of paperwork. Demand integration includes increased access to demand information throughout the supply chain to permit rapid and efficient delivery, coordinated planning, and improved logistics communication. (de Treville *et al.* 2004)

Agile supply chain

The agility in the field of manufacturing and supply chains has numerous definitions in the literature. The agility is typically related to the flexibility and responsiveness. Christopher (2000) presents a relevant definition of agility. Agility is a business-wide capability that embraces organizational structures, information systems, logistics processes, and, in particular, mindsets. A key characteristic of an agile organization is flexibility...Agility might, therefore, be defined as the ability of an organization to respond rapidly to changes in demand, both in terms of volume and variety. (Christopher 2000).

Agile organisations are also seen to benefit from the unexpected changes in business environment.

Shang & Sharifi (2000) defines the agility as the paradigm is primarily concerned with the ability of enterprises to cope with unexpected changes, to survive unprecedented threats from the business environment, and to take advantage of changes as opportunities.

According Shang & Sharifi (2000) the concept of agility comprises two main factors:

Responding to changes (anticipated or unexpected) in proper ways and due time exploiting changes and taking advantage of changes as opportunities.

Harrison & van Hoek (2008) presented a supply chain based definition to the agility (Harrison & Van Hoek 2008):

Agility is a supply-chain-wide capability that aligns organizational structures, information systems, logistics processes and, in particular, mindsets.

Main idea of agility in the context of supply chain is responsiveness. Agile supply chain has shorter lead times and seeks to be demand-driven. According Christopher (2000) the agile supply chain is

- Market sensitive: closely connected to end-user trends
- Virtual: relies on shared information across all SC partners
- Network-based: gains flexibility by using the strengths of specialist players
- Process aligned: has a high degree of process inter-connectivity between the network members.

Procurement process, efficiency, effectiveness and performance

Knudsen, (1999) suggested that procurement performance starts from purchasing efficiency and effectiveness in the procurement function in order to change from being reactive to being proactive to attain set performance levels in an entity.

According to Van Weele (2006) purchasing performance is considered to be the result of two elements: purchasing effectiveness and purchasing efficiency. Performance provides the basis for an organisation to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements.

This means that purchasing performance is not an end in itself but a means to effective and efficient control and monitoring of the purchasing function (Lardenoije, Van Raaij, & Van Weele, 2005).

Purchasing efficiency and purchasing effectiveness represent different competencies and capabilities for the purchasing function. CIPS presents the differences between efficiency and effectiveness. Efficiency reflects that the organisation is “doing things right” whereas effectiveness relates to the organisation “doing the right thing”. This means an organisation can be effective and fail to be efficient, the challenge being to balance between the two.

For any organisation to change its focus and become more competitive Amaratunga & Baldry (2002) suggest that performance is a key driver to improving quality of services while its absence or use of inappropriate means can act as a barrier to change and may lead to deterioration of the purchasing function. Organisations which do not have performance means in their processes, procedures, and plans experience lower performance and higher customer dissatisfaction and employee turnover (Artley & Stroh, 2001, Amaratunga & Baldry, 2002). Measuring the performance of the purchasing function yields benefits to organizations such as cost reduction, enhanced profitability, assured supplies, quality improvements and competitive advantage as was noted by Batenburg & Versendaal (2006).

Until an organisation measures purchasing performance they will never know how well they are performing and why they should measure purchasing performance. Van Weele (2006) identified four reasons for measuring purchasing performance:

- i) It provides feedback on the extent to which the planned outcomes for purchasing are being achieved in the organisation.
- ii) It provides information for analysis and decision making.
- iii) It provides information to executive management about the effectiveness, efficiency, value and contributes to the recognition of the procurement function.
- iv) It provides focus and motivation for purchasing staff.

Research Methodology

Secondary data

The study made use of information obtained from documents in various forms, such as Acts, newspaper and reports from different institutions. Literature from libraries, archives, documents review, articles, data bases and online resources.

Data from Primary Sources

As adequate data could not be gathered from the institutional or secondary sources, additional data was collected from primary sources. Data collection from primary sources involved a field survey since it has the capacity for generating data from a large number of people. The survey was limited to staff and management of Electricity Company of Ghana Limited.

This research strategy was deliberately chosen to see how results from primary data compared with the results obtained from secondary data. Research on the basis of primary data provided a different way of examining the same research problem examined by the secondary data. It meant that primary data served as a complement to secondary data.

In order to generate data from the primary sources, a written and self-administered questionnaire which was relatively cheap, time-efficient and free from interviewer bias was developed. Considering the time and costs involved in other instruments, this instrument was chosen despite objections from several authors on the ground that it yields incomplete responses, contains confused questions and lacks spontaneity. However, given the circumstances that constrained the use of other efficient instruments, it was believed that the advantages of a self-administered questionnaire far outweighed the disadvantages associated with it.

Research design.

The researcher employed descriptive research design to describe the phenomenon as it exists, comparative research design to compare the process and implementation of procurement and value chain for achieving effective organizational goals.

Survey population

The population that was surveyed to achieve the research objectives included, Employees ranging from cleaners, Accounts assistants, Officers at Top management positions, and the procurement department.

Sample size and sampling procedure

A sample of 30 respondents was identified to fill the questionnaires. These were comprised of staff of the Electricity Company of Ghana Limited to access their view on the implementation of procurement and value chain for achieving effective organizational goals.

The respondents were selected using proportionate stratified sampling and simple random sampling.

Qualitative Research

The qualitative research method was considered as a means of gaining access to unquantifiable facts. This method uses ‘words as data’ and it allows the researcher ‘to share in the understanding and perceptions of others’. Qualitative methods unfold events over time which provides additional information often untapped by static quantitative methods. As this study deals with a single organization, the qualitative research method was incorporated in the research design. However, the qualitative method was used in conjunction with the quantitative method as a multiple research strategy to increase the depth of understanding of the results of procurement and value chain in the organisation. The reason behind the application of both

research methods was to discover the commonalities across various findings to increase validity and reliability of the conclusions about procurement and value chain.

Tools for analyzing the data

Data obtained from the field was summarized quantified statistically and presented in a comprehensive manner for easy understanding and interpretation.

However, the first process examined was to examine the data, find out whether all the questions have been properly answered, irrelevant and contradictory responses were also eliminated.

The second stage did the coding of the various research questions and their responses. They were subsequently classified quantitatively and the raw data then converted into tables.

This obtained a form of measurement to ensure and enhance efficient and effective analysis. Quantitative analysis of the data was made by the researcher. This was done to eliminate contradictory statement that cannot be relied on. It aimed at ensuring systematic and logical conclusions so as to be able to give workable suggestions to procurement and value chain for achieving effective organizational goals.

The total effect of this process is to ensure accuracy, consistency band reliability of the information to be obtained.

Presentation and Analysis of Data

This section is devoted to the presentation and analysis of data collected for the study. The analysis is based on the data collected from the field of study according to the response given by the respondents on the effectiveness of procurement and value chain on organizational performance. Both statistical and descriptive analysis was employed in analyzing both primary and secondary data obtained. Statistical tools such as tables and charts were used.

Table 1 shows gender variation of respondents.

In a bid to have balanced views, this researcher fairly consulted both male and female respondents. Their views were carefully and equally considered in this study. Their statistical over view was portrayed in the following table to enhance its coherence.

Sex	Frequency	Percentage (%)
Female	24	48
Male	24	48
No response	02	04
Total	50	100

Source: field data 2014

As indicated from the table out of 50 respondents, 24 were female making a percentage of 48% and 24 respondents were male also making a percentage of 48% and only 02 (04%) did not respond. According to the percentages, both sexes were interested in the topic and gave positive response to the study. This justified that both male and female members were equally considered in enriching this study.

Transparency in Procurement

Availability of Written Records of Procurement

The study sought to find out from procurement officers whether respondents have written records of procurement.

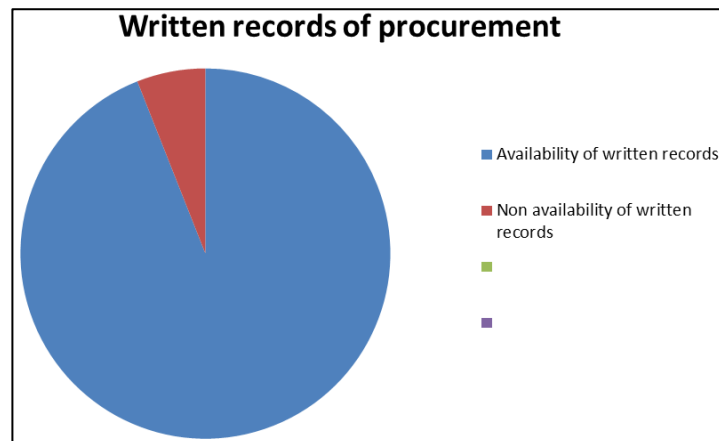


Fig: 1 Written records of procurement

Source: field data 2014

As it can be seen from Figure 1 above, respondents representing 94% responded that they had written record of procurement at their workplace. However, only respondents representing 6% indicated that, they do not have written records of procurement at their workplaces. This revelation is an indication that procurement entities keep tangible evidence and the appropriate records of their activities. Record keeping has the advantage of enhancing auditing, transparency and accountability as well as reducing the problem of poor record keeping in public organisation.

Access to Procurement Information

Access to information in any economy or a country is one of the indicators of transparency. It is revealed from the field study that 94 percent of procurement officers contacted published information on procurement whereas 6 percent did not publish information on procurement. On the part of contractors and consultants, 86 percent confirmed that they had access to procurement information while 14 percent of the respondents did not have access to summarized information on procurement. According to Greuning (2005) transparency refers to the creating of an environment where information on existing conditions, decisions and actions are made accessible and visible to all individual participants. If this assertion is something to go by, then procurement is transparent, since most people have access to procurement information.

Tender Invitation and Opening

The data sought to find out the minimum time period allowed for tender invitation.

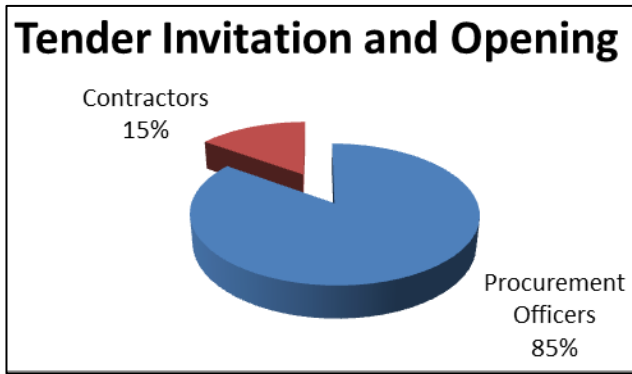


Fig 2: show respondents view on Tender Invitation and opening

Source: field data 2014

Figure 2 indicates the minimum time period allowed for tender invitation. It is measured as the difference between the date the tender notice appeared in the newspapers and the date of the tender opening. The figure revealed that, 94 percent of procurement officers responded that sufficient time was allowed for contractors to prepare and respond to invitation. Also, 85 percent of the contractors confirmed that they were given enough time to prepare whereas the remainder responded that they were given insufficient time period. This helped in data collection on tender which avoided under or over estimation of contract values

Causes of Delays in Procurement

Preparation of Procurement Plan and Duration

One of the challenges of public financial management in Ghana is proper planning. In order to have a viable public financial management, there is the need to strengthen day-to-day planning activities. The study revealed that all the procurement personnel's (100) percent indicated that they prepare their procurement plans themselves. This is an indication that all the procurement personnel's consulted followed the laid down procedures or the provision of the Act. The Act (21) states that all the procurement entities shall prepare procurement plans to support their approved programmes. The preparation of procurement plans by

procurement entities avoids unplanned expenditure by the entities and allows them to spend within their budgetary allocation for the fiscal year. It determines performance standards, establishes overall direction, reduces uncertainties and enhances coordination of various activities.

Table 2: Preparation of procurement plan

Status	No. of respondents	Percentage (%)
1-3 weeks	17	34
Between 1 and 2 months	30	60
Between 2 and 4 months	3	6
Total	50	100

Source: field data 2014

The study revealed that 60 percent, (ie more than halve of the respondents) indicated that it takes them between 1-2 months to prepare procurement plans while 34 percent indicated that it takes them between 1 and 3 weeks to prepare their procurement plans; 6 percent indicated that they used between 2 and 4 months to prepare their procurement plans. It is clear from the table above that preparation of procurement plans take a lot of time and therefore delayed the process. It is an affirmation of the existing literature that the Act delays procurement process, Nketia-Asante (2009). However, the information gathered from the field shows a total violation of the Public Procurement Act which stipulates that not later than a month to the end of the financial year the procurement plan for the following year must be submitted for approval.

The Procurement Act as a Cause of Delay in Public Procurement

Many people have been complaining about the delays in procurement activities in Ghana due to the passage of the Public Procurement Act. The study sought to find out whether the procurement act itself delays the award of contracts.

Table 3: Delay in public procurement

Delay in Procurement	No of Respondents		Percentage (%)	
	Procurement Personnel's	Contractors	Procurement Personnel's	Contractors
Strongly Agree	20	7	40	28
Agree	25	15	50	60
Disagree	4	3	8	12
Strongly Disagree	1	-	2	-
Total	50	25	100	100

Source: field data 2014

As indicated in Table 3, both groups of respondents (procurement personnel's and contractors) agreed that the Procurement Act causes delays in procurement. 40 percent of procurement personnel's and 28 percent of contractors strongly agreed that the Procurement Act causes delays in procurement. 25 procurement personnel's and 15 contractors representing 50 percent and 60 percent respectively also agreed that the Procurement Act causes delays in procurement. However, 8 percent of procurement personnel's and 12 percent of contractors disagreed with the assertion that the Procurement Act causes delays in the

award of contracts. This means that the Procurement Act delays the award of contracts since most of the respondents, both procurement personnel's and contractors agreed to that effect.

Summary of Findings, Conclusion and Recommendations

This involves; discussion of the findings as presented in the previous chapter, a summary in order to establish the role of procurement and value chain performance on organizational goals, and to make possible recommendations and suggestions

Summary of Findings

This study was set out to assess the effectiveness of Public Procurement on organizational effectiveness.

After a series of intensive review and analysis of materials relating to Procurement, the following findings were made.

- 1) The study revealed that the procurement department at ECG has a reliable and credible record of procurement activities. Record keeping enhances auditing, transparency and accountability in public organisations. These records of information are available and accessible to contractors quarterly. Procurement Act stipulates that all procurement entities are to keep tangible records of procurement.
- 2) It was revealed that, the media through which the public gets to know the procurement advertisements or opportunities were the national newspapers. This was in conformity with the Procurement Act 2003 that requires procurement entity to publish tender invitation in a wide nationally circulated newspaper as stated in Section 47 (2) of Act 663.
- 3) It came to light that contracts were publicly advertised and keenly contested. Procurement entities mostly adopt National Competitive Tendering method that enhances fairness and transparency in the procurement practices. The Daily Graphic and Ghanaian Times were among the newspapers through which tender invitation were published.
- 4) The time allowed for tender invitation and opening was manageable. Over Ninety percent of the respondents acknowledged that between one and four weeks were the maximum time period allowed for tender invitation and opening. Procurement entities allow enough periods for contractors to prepare for bidding. This step enhances procurement activities.

Conclusion

In reference to the research objectives set, the researcher concludes that procurement plays a positive role on purchasing in supply chain management.

Organizations that have procurement already in place have enjoyed its benefits like easing purchasing processes, increasing the supply chain awareness, reducing total costs, quality improvement among others.

However despite the many benefits that accrues from the application of procurement principles, there is the need to review the Procurement Act.

Also based on the overall flow of materials, companies can be seen as being composed of three primary processes: purchasing, manufacturing and distribution. While distribution systems were excluded in this research, the primary driver for the project was to evaluate the effectiveness of procurement and value chain practices such as strategic sourcing and utilization of E- procurement tools, to achieve organizational goals.

There has been extensive research that has identified the success factors in attaining trading and manufacturing priorities such as cost, quality, flexibility and delivery. While cost and quality have been on the forefront for several decades, the increased competition is forcing companies to start placing emphasis on flexibility and delivery.

As a result, this study attempted to understand the impact of purchasing initiatives in conjunction with widely adopted manufacturing initiatives on manufacturing flexibility.

Recommendations

The following recommendations were made to improve procurement activities in order to achieve its aim as a tool for improving effectiveness and efficiency in public organizations.

- 1) The Electricity Company of Ghana should take appropriate steps to develop and implement an adequate policy framework for enhancing integrity throughout the entire public procurement cycle, from needs assessment to contract management and payment;
- 2) Also the Company should disseminate the Procurement Principles to the private sector, which plays a key role in the delivery of goods and services for the public service.
- 3) Governments should provide potential suppliers and contractors with clear and consistent information so that the public procurement process is well understood and applied as equitably as possible.
- 4) Governments should promote transparency for potential suppliers and other relevant stakeholders, such as oversight institutions, not only regarding the formation of contracts but in the entire public procurement cycle.
- 5) Governments should adapt the degree of transparency according to the recipient of information and the stage of the cycle. In particular, governments should protect confidential information to ensure a level playing field for potential suppliers and avoid collusion. They should also ensure that public procurement rules require a degree of transparency that enhances corruption control while not creating 'red tape' to ensure the effectiveness of the system.

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