Assessing Supply Chain Management Practices on Organizational Performance; a Case Study of the West African Examinations Council (Waec), Ghana National Office, Accra

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Abstract:
Improved organizational performance is determined by how an entity strategically trade-off cost (efficiency) and responsiveness at all levels. Incorporating supply chain practices into existing structures has the potential of yielding positive returns for the organisation. The objective of this study was to assess the supply chain management practices (SCMP) and the critical success factors with its associated benefits on organizational performance at WAEC. The study used primary data from field survey using questionnaire instrument. Both descriptive and inferential statistics were used to assess the SCMP of WAEC. The study revealed a number of supply chain practices which include: product quality, joint problem-solving with suppliers, continuous improvement, customer interaction, periodic evaluation of performance, among others, are practiced at WAEC. However, the study identified some challenges such as inadequate information system, difficulty in partnering with key customers and suppliers, and difficulty in managing procurement processes of the council. The challenges has led to increased total supply chain cost, thereby reducing profitability in the long run, making it difficult to reap the benefits of an effective supply chain management practices. In view of the enumerated challenges, the researchers recommend that, an immediate integration of the business processes of the Council as well as embracing other new management philosophies such as Lean management, Total Quality Management (TQM) and Just-in-Time (JIT).

Key words: Supply Chain Management, Organizational Performance, West African Examinations Council (WAEC), Ghana, Accra

1. INTRODUCTION

In recent times, there has been massive awareness on supply chain management as an avenue through which firms can achieve competitive advantage in markets (Collin, 2003). A number of examples in the 1990s clearly show how some companies have made huge investment to streamline their supply chains in order to enhance customer satisfaction and further increase their internal productivity levels. As stated by Christopher (1998), it is not actually individual companies that compete with each other in this modern period; rather, competition is between supply chains. Supply Chain Management (SCM) has become a critical factor for the organization's success. In this regard, many firms and researchers have attempted to find out variables that affect either positively or negatively on SCM. SCM focuses on how organizations control their suppliers' processes, technology, and capability to improve competitive advantage (Farley 1997). Lee and Billington (1992) suggest that SCM is based on interactions of manufacturing, logistics, materials, distribution, and transportation functions within an organization. Subsequently, in measuring supply chain performance, many characteristics of SCM should be reflected in the supply chain performance measurement system. The existing supply chain performance measurement systems are problematic because they commonly use cost as the primary measure and they do not reflect the strategic goals of the organization nor consider the effect of supply chain disruption due to uncertainty (Beamon, 1998).

The West African Examinations Council is a body that conducts examinations under the following broad headings; National Examination, International Examination and Examinations administered on behalf of other Examining Boards in Ghana and other West African countries. The National Examinations are restricted to the specified member countries for which they are developed and they reflect their local policies, needs and aspiration.

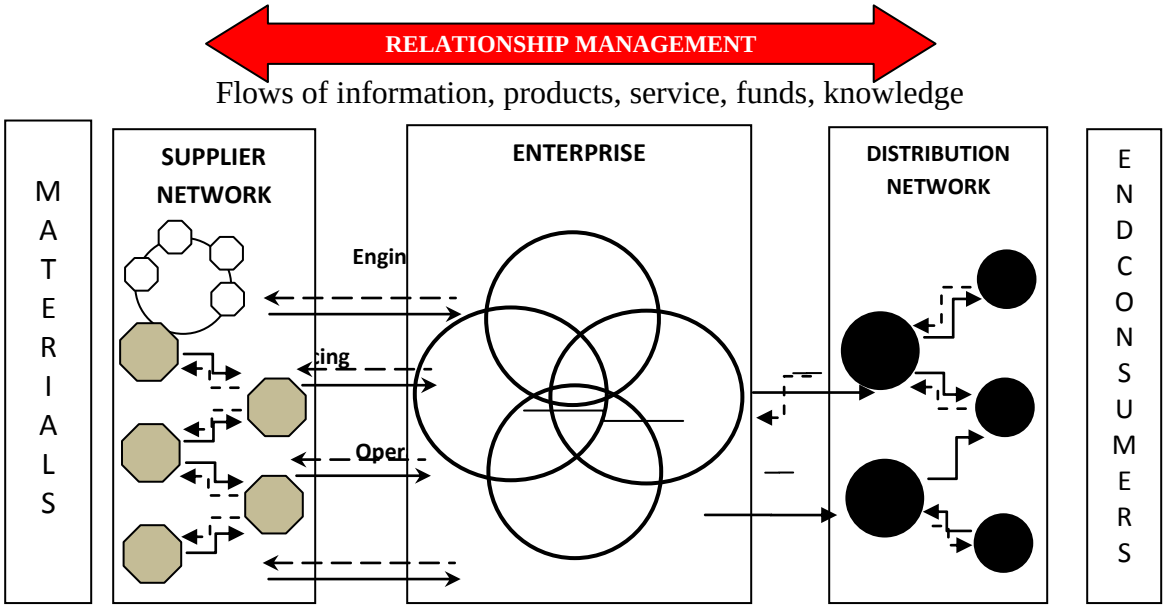
There has been a hitch in the flow of the supply chain network which in most case affects the performance of WAEC as a whole. In essence, it causes delays in conduct of examinations at some centers, release of results, examination malpractices, etc. which goes in a long way to affect the quality in the conduct of examinations by WAEC, (WAEC, 2012). In spite of the effort made by the Council in the year 2004, to craft its own supply chain system to embraced and implement the newly enacted Procurement Act (Act 663) which stands to govern the operations of the Council's supply chain concepts. Also with the overall objective to increase service level to customers and reduce cost of logistics. To be able to implement this complex change, it was required of the Council to manage supply chain in a well-coordinated manner. The full implementation started in year 2005(WAEC, 2012). Therefore, this study seeks to one, examine the supply chain management practices at the West African Examinations Council and assess how they affect performance, Two, to assess the basis of making supply chain decisions at the WAEC. Further, it attempts to assess challenges involved in implementing supply chain practices at WAEC and make recommendations that would be of benefit to the whole economy of Ghana in terms of the education related supply chain management practices. The study was also guided by the following research questions: One, what are some of the supply chain practices that affect the operations of the West African Examinations Council and assess how they affect performance? Two, on what basis are supply chain decisions made at the West African Examinations Council? Three, what challenges are involved in the implementation of supply chain practices at the West African Examinations Council? And what measures can be applied to improve supply chain management practices and to enhance organizational performance?

2. LITERATURE REVIEW

2.1 Supply Chain Management

Supply chain management is defined by Mentzer, (2001) as the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole. SCM focuses on how firms utilize their suppliers' processes, technology, and capability to enhance competitive advantage. Hence Supply chain management (SCM) enhances competitive performance by closely integrating the internal cross-functions within a company and effectively extending them to the external operations of external partners to be successful (Monzcka and Morgan, 1997; Ellram and Cooper, 1993; Lambert, James and Elram, 1998; Kim, 2006; Tan, Kannan, and Hadfield, 1998). Supply chain is a set of three or more entities directly involve in the upstream and downstream flows of products services, finances and information from a source to a customer (Hadfield, 2002; Mentzer, 2001). Figure 2.1 shows a network of supply chain.

Figure 2.1: Supply Chain or Supply Chain Network



Source: Georgevitch (2005)

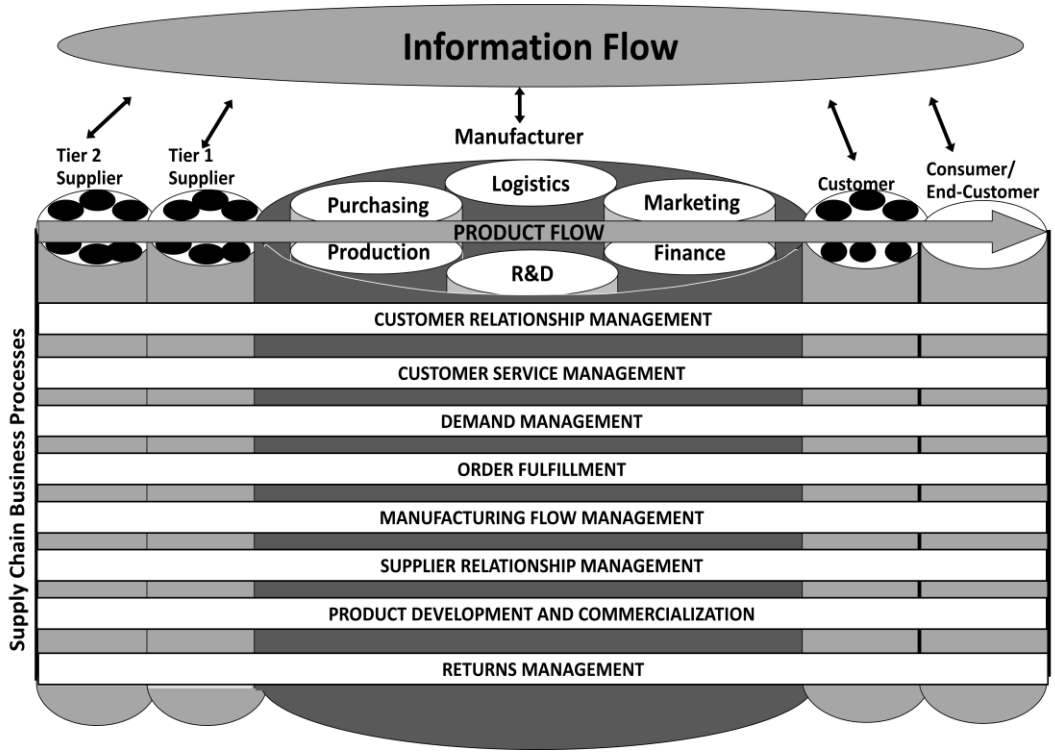
2.2 Supply Chain Management as a Management Philosophy

Supply chain management as management philosophy takes a system approach to viewing the supply chain as a single entity. This means that the partnership concept is extended into a multi firm effort to manage the flow of goods from suppliers to the ultimate customer. Each firm in the supply chain directly or indirectly affects the performance of other supply chain members, as well as the overall performance of the supply chain (Cooper, *et al*, 1997).

2.3 Supply Chain Management as a Set of Management Processes

Supply chain management is increasingly being recognized as the integration of key business processes across the supply chain. Implementation is carried through by three primary elements; the supply chain network structure, the supply chain processes and the management components. In terms of supply chain network structure, it is important to integrate decisions related to purchasing, manufacturing, stocks, warehousing and distribution. On the other hand, it is important to design a set of standard processes which will assure rational behavior of the individuals or companies that are part of the supply chain. Last but not least, it is necessary to define control mechanism to be able to audit performance of supply chain according to the plan. This is conducted by coordinating activities and processes in order to build links between supply chain members and making the right decision. There are several organizations trying to set cross-industry standard processes such as Global Supply Chain Forum (GSCF), Supply-Chain Operations Reference Model (SCOR), Collaborative Planning, Forecasting & Replenishment (CPFR) and Rosseta Net, which can help members of a supply chain integrate efficiently. The Global Supply Chain Forum defines supply chain management as "the integration of key business process from end user through to original suppliers that add value to customers and stake holders" (Lambert, 2005). According to Lambert, Cooper & Pagh, 1998 as cited in Otchere et al 2013, there are eight (8) supply chain management (business) processes: as shown in figure 2.2.

Figure 2.2 Integrating and Managing Business Processes across the Supply Chain



Source: (Adopted from Lambert, Cooper and Pagh, 1998 as cited in Otchere, et a l2013).

The eight key business processes run along the supply chain and cut across firms and functional silos within each firm. Although functional expertise remains in place, implementing supply chain management requires making a transition from a functional organization to one focused on business processes. While management teams of all firms in each supply chain should consider these eight processes, the relative importance of each process and the specific activities included may vary. Another effective way of managing supply chain is by using the supply chain operations reference (SCOR) model developed the Supply Chain Council to ensure effective communication among the supply chain partners and to measure performance of the chain. The scope of the SCOR model is defined as "from company's supplier's supplier to company's customer's customer.

2.4 Supply Chain Management versus Logistics

When defining supply chain management, it is common to relate it to logistics to better understand the approach, since the concept of supply chain management started in the logistics literature. Helldorsson and Larson (2000) show that supply chain management relative to logistics can be viewed in four different ways: Traditionalist, Re-Labeling, Unionist and Intersectionist. Some authors do not distinguish between supply chain management and logistics, they just interchange the names. Christopher (1998) defines supply chain management as an extension of logistics. Logistics is essentially a planning orientation and framework that seeks to create a single plan for the flow of products and information through a business. Supply chain management builds upon this framework and seeks to achieve linkage and coordination between processes of the entities in the pipeline. Schary (1998) also see supply chain as more than logistics. It includes the flow of material and products to customer and more than that, it includes also the organizations that are part of these processes crossing organizational boundaries to link their internal operations as part of this system. The scope of supply chain spans the entire set of organizations from procurement of material and

product components to delivery of completed product to the first customer (Schary, 1998).

2.5 Drivers of Supply Chain Development and Main Initiatives

In today's global economy, companies face increasing pleasure to reduce cost while maintaining production and quality levels to deliver results. In order to achieve these goals, companies must successfully overcome a number of challenges. As Meakem (2003), points out, free market economies and new technologies are creating new supply and demand markets around the world. Many organizations, for instance, are looking for supply from China. But good numbers of these organizations lack the information and knowledge necessary to drive more supply and production offshore. The rules of free market global competition dictate that only the strong survive. As a result, industries around the world are consolidating at a rapid rate. This in turn requires organizations to select the best suppliers and pull them into core enterprise activities. Organizations across geographies and industries are scrutinizing make-versus-buy options. And many are finding increased value in outsourcing production of goods and services.

Handfield (2002) summarizes divers into:

- Ever-increasing customer demand in terms of product and services cost, quality, delivery and technology as well as cycle time brought about by global competition.
- The emergence and greater acceptance of higher order cooperative inter-organizational relationships.
- The information revolution.

The consequence of this development is that companies are putting more and more efforts into developing new way to increase competitiveness on the market in terms of more efficient and effective supply chain management.

2.6 Supply Chain Management and Customer Relationship Management (CRM)

The phenomena of managing relationships with customers are unanimously recognized as an essential component to an organization and have become increasingly popular amongst academicians and practitioners in a wide variety of academic fields and industries (Lambert, 2005). This area of study is most often referred to as CRM. Although, the management of customer relationships is widely recognized as an essential component of an organization because of the expected benefits likely to occur if done well and the likely detriments to arise if neglected, the determination of what exactly constitutes CRM and its implementation remains to be a prominent point of contention in CRM literature and in practice has proven to be nothing short of extreme (Lambert, 2005). He further suggests that technology is a tool and "to be successful, management must place its primary focus on the CRM process, the people and the procedures that make the technology effective". This is not to say that technology doesn't play a role in CRM or can't assist in its success. Actually, it had been observed that all customers do not contribute equally to the firm's success; hence the goal of every firm is to identify those customers who desire and deserve special treatment so that offerings can be tailored to meet their needs while achieving the firm's profit goals for the customer.

2.7 Organizational Strategy and SCM Drivers

Strategy is concerned with the long-term direction of an organization (Johnson and Scholes, 2002). Raps (2005), claims that the key to success is an integrative view of the implementation process of strategy. Researchers have emphasized the strategic importance of integrating suppliers, manufacturers, and Customers. Christopher, 2003; stresses the importance of linking an innovative strategy to the company's vision and overall business strategy. Clients are shown to be key drivers of performance improvement and innovation and are the most significant factor in achieving integration in the supply chain.

2.8 Performance Improvement on SCM Practices

As cited in Otchere et al, (2013), Rosenzweig, Roth, and Dean, (2003) concluded in their studies that supply chain integration directly relates with business performance. Also internal

collaboration directly affects firm performance (Stank et al. 2001). A number of researchers have also found that higher levels of integration generally lead to better performance (Gimenez and Ventura, 2005; Stock et al. 1998). A study conducted on effects of SCM practices integration, and competition capability on performance **(**Kim, 2006) found that "in small firms, efficient SC integration may play a more critical role for sustainable performance improvement, while, in large firms, the close interrelationship between the level of SCM practices and competition capability may have more significant effect on performance improvement. Flynn et al. (2010) assessed the impact of three dimensions of supply chain integration (supplier integration, customer integration, and internal integration) on operational and business performance. They found that internal integration directly relates to both business and operational performance and that customer integration directly relate to operational performance. Although supplier integration is not relate directly to either type of performance, the integration of supplier and customer were related to operational performance. Internal and external integration influence each other along with performance. In the empirical study on the effect of SCI on alignment between corporate competitive capability and SC operational capability, it was found that "the effect of integration between corporate competitive capability and SC operational capability on performance improvement becomes insignificant as the developmental stage of SC integration increases (Kannan and Tan, 2010; Lee, 2000; Christopher, 2011cited in Otchere et el, 2013).

3. METHODOLOGY

Deductive approach with a combination of descriptive and explanatory approaches was used to describe and explain the supply chain management practices on organizational performance at WAEC our case study. This study used of both primary and secondary data. The primary data was gathered through field survey using self-administered questionnaires and the secondary data was collected from research papers, journals, books and online resources. The researchers also obtained data from written documents such as reports, as well as records made available by the case study institution (WAEC). The population of the study consists of staff members working in the area of supply chain at the WAEC office (Procurement, Transport, Finance, Administration and Test Administration Divisions). The total population at the head office was one hundred and sixty (160) staff members. A sampling size of fifty (50) was choosing through purposive sampling technique the respondents were choosing based on accessibility of information and the level of knowledge of supply chain activities and operations of WAEC. In order to answer these study questions a population mean and sample mean were computed. Scores were assigned to the respondents' choice of answers and aggregated scores were ranked accordingly. All data were coded and analysis was carried out using the Statistical Package for Social Sciences (SPSS) version 16.0 and Microsoft Excel 2007 Software. Tables and control charts have been applied and percentages calculated to give a reflection of the objectives. Conclusions have also been drawn from the results derived from the various tables and charts. Out of the chosen sample size of 50 given the questionnaires; 44 of them was returned, making the response rate of 88%.

4. RESULTS AND DISCUSSION

4.1 Demography of Respondents

Though WAEC is a service oriented organization, purely into examinations administration, its activities are organized around a number of departments for effective operation. The various departments identified by the study include procurement, stores, finance, transport, and test administration. The findings of the study showed that most of the staff (27%) work under the finance department, followed by the test administration department, accommodating about 24% of staff. Personnel whose activities are directly linked to value creation within the supply chain were about 12% under transport department, 17% under procurement, and 20 % under stores. With regards to Experience It was clear that 2.4% of the total respondents have worked at WAEC for less than a year, 47.6% between (1 – 5 years), 18% between six to ten years (6 -10 years) and 7% above ten

years (10 years). This indicates that majority of the staff have enough experience.

4.2 Supply Chain Management Practices

Respondents were asked to indicate their opinions by rating Supply Chain Management Practices within WAEC. The rating was a five point likert scale, ranging from **1 = 'Strongly Disagree' to 5 = 'Strongly Agree'**.

Table 4.1 Supply Chain Management Practices

FACTORS	1	2	3	4	5
	PERCENTAGES				
The Council considers quality as number one criterion in selecting suppliers.	5	0	7	35	53
The Council regularly solves problems jointly with our suppliers.	9.5	14.3	16.6	28.6	31
The Council helps its suppliers to improve their product quality.	7.1	21.4	23.9	40.5	7.1
There is a continuous improvement programs that includes Council's key suppliers.	11.6	23.3	37.2	20.9	7
The Council frequently interacts with customers to set reliability, responsiveness, and other standards for its operations.	2.4	9.8	26.8	43.9	17.1
The Council periodically evaluates the importance of its relationship with customers.	4.6	7	32.6	37.2	18.6
High level decisions regarding supply chain are made by Committee, without representatives from other functional departments.	51.2	25.5	7	14	2.3
Supply chain performance is measured predominantly at functional level	4.8	23.8	27.6	24.8	19

Source: Author's computations based on the field survey 2012

The study revealed that the Council selects suppliers based on a number of factors, one of which is the quality of product and service offered by suppliers. The findings reveal that, 53% and 35% respondents indicated 'strongly agree' and 'agree' respectively to the fact that WAEC considers product and service quality as one criterion in selecting suppliers. Furthermore, as measures to improve relationship with suppliers, 58.7% responded "Agreed" indicating that, the council effectively consult suppliers in dealing with issues relating to their supply chain processes. On product quality, 40.5% of the responses agree that the Council regularly provides support to their suppliers as part of moves to improve product quality. 7.1% however strongly agree to this while 23.9 stayed neutral and 7.1% strongly disagree to this. In view of the percentages it can be said that The Council helps its suppliers to improve their product quality. The literature reviewed indicates that continuous improvement is a contemporary management philosophy in the manufacturing industry and has been over the years finding its way into the service sector gradually. The findings of the study agree to the view that the Council normally initiates and executes programmes in promoting continuous improvement in its entire supply chain. The study revealed that the council frequently interacts with customers to set reliability, responsiveness, and other standards for its operations. From table 4.1, most of the respondents (61%) agree that customers' inputs are considered as the Council continue to improve its operations, 26.8% are however indifferent to this. On periodic evaluation of relationship with customers, 18.6% strongly agree that the Council perform this activity. 4.6% however strongly disagree to this while 32.6% were indifferent. Also, with decision making, consultation with members of the Council while making supply chain decisions was high. Although, high level decisions regarding supply chain are made by committees, views from representatives of

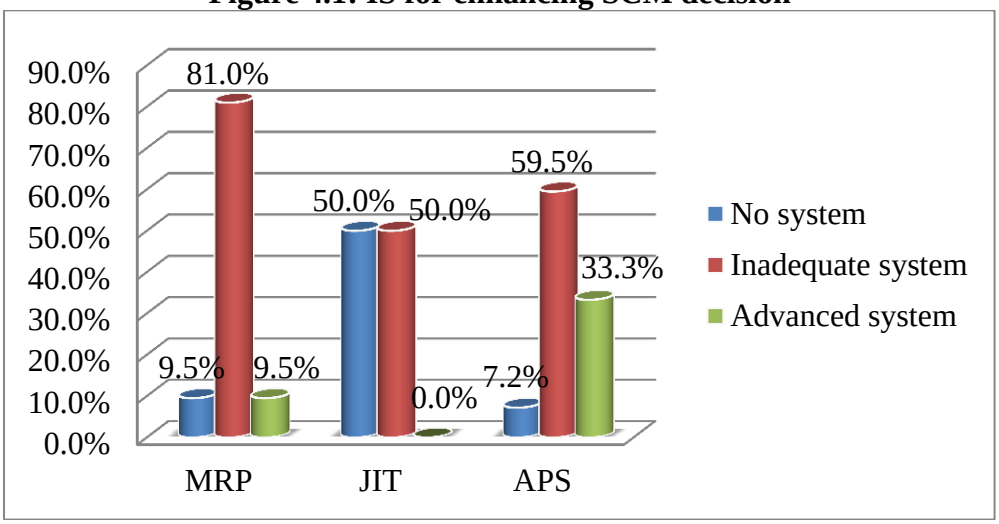
functional departments are considered. More than half of the responses disagree that high level decisions are solely made at committee level. Finally, measuring supply chain perfomance at functional level is partly perform by the Council. 19% responses show strongly agree that this activity is done predominantly at the functional level, while 23.8% agree to this. Not withstanding this, 4.8% had an opposite view of this.

4.3 Supply Chain Management Decisions

Supply chain decisions evolve around a number of drivers such as information, pricing, inventory, transportation and facility which aim at increasing responsiveness as well as reducing cost. A firm's ability to realize the benefits of effective supply chain decisions highly depend on how it handles its information. The study thus sought to find how the Council uses information technology to support its supply chain management decision. The following results were found:

Generally, the Council has inadequate system for supporting its supply chain management practices. 33.3% of the responses show that the Council uses advanced Planning and Scheduling while 7.2 % states that no advanced Planning and Scheduling are used. It can also be seen that in light of systems for supporting MRP and JIT are normally inadequate. 81% and 50% of the responses respectively show that the Council has inadequate systems for supporting MRP & JIT.

Figure 4.1: IS for enhancing SCM decision



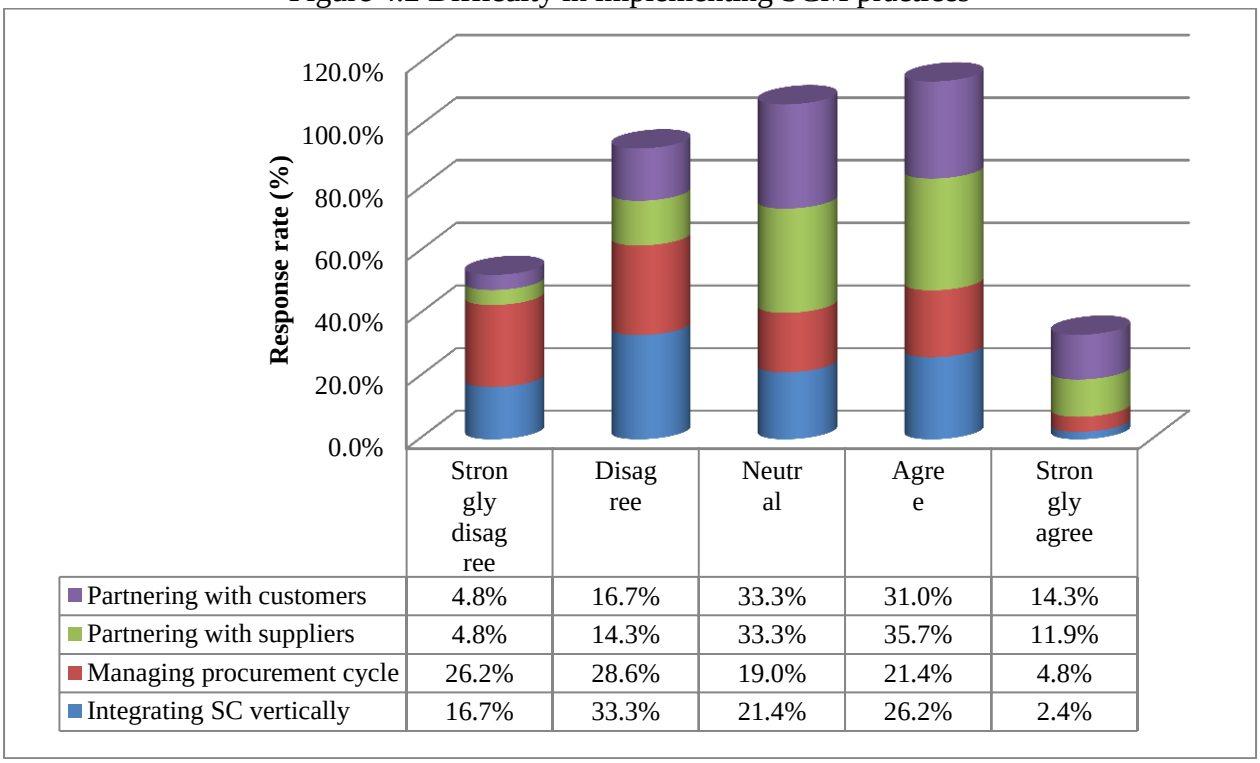
Source: Author's computations based on the field survey 2012

Integrating members of a supply chain is recently built around Enterprise Resource Planning (ERP). For the Council, though advanced Information Systems (IS) are not integrated into its operations, more basic ERP systems such Transaction Processing Systems (TPS), Customer Relationship Management Systems (CRMS), and Supplier Relationship Management Systems (SRMS) are incorporated into its operations. 39% responses revealed that basic ERP system are utilized more in the organization while 15% response believe ERP is not used at all in the organization. Representing user departments and external partners' interest in supply chain decision making process was also found to be done most often. The results indicate that no supply chain decision has ever been taken without consulting the user's needs. Trust for external service providers is a major issue for the Council; Majority (69%) responses revealed that the Council does not have trust for their service providers' reliability. What accounts for this has been failure of service providers to meet requirements and standards over the years.

4.4 Challenges in implementing supply chain management practices

In determining factors affecting the smooth implementation of supply chain management practices, staff at the Council rated their responses as follows in Figure 4.2: It is evident that, 14.3% and 31% of the respondents 'strongly agree' and 'agree' respectively that, it has been difficult over the years for the council to work closely with customers. While few respondents (4.8%) however strongly disagree that partnering with customer is challenging in impreminting supply chain management practices, 33.3% remain neutral. The results also showed that, on the average, integrating the Council's internal processes with suppliers is challenging, 47.6% agree to this fact and 33.3% remain neutral. Again, 54.8% responses 'disagree' with the view that managing procurement activities is a challenge to the Council and only 4.8% 'strongly agree' that it is a challenge. Furthermore, it is discernable from the Figure that, the Council finds it easy to vertically integrate its processes and that Controlling and managing the entire supply chain has been found to be of interest to the Council since it has been difficult to partner with both suppliers and customers. 50% of the respondents 'disagree' that integrating the Council's supply chain has been a challenge and 21.4% remain neutral.

Figure 4.2 Difficulty in implementing SCM practices



	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Partnering with customers	4.8%	16.7%	33.3%	31.0%	14.3%
Partnering with suppliers	4.8%	14.3%	33.3%	35.7%	11.9%
Managing procurement cycle	26.2%	28.6%	19.0%	21.4%	4.8%
Integrating SC vertically	16.7%	33.3%	21.4%	26.2%	2.4%

Source: Author's computations based on the field survey 2012

4.5 Drivers of supply chain performance

Respondents were asked to indicate their opinions by rating the challenges of Supply Chain Management Practices within WAEC. The rating was a five point likert scale, ranging from **1= not a problem, 2=slight problem, 3=frequent problem but can be managed, 4=major problem and 5= threat to the organization**.

Table 4.2 Challenges of Supply Chain Management Practices

FACTORS	5	4	3	2	1
	PERCENTAGES				
Rising logistics cost	21.4	50	16.7	11.9	0
Lack of professional expertise	2.4	0	9.4	57.1	31.1
Concentration on core service	0	23.8	35.7	28.6	11.9
Information flow	0	9.7	61	17.1	12.2
Supplier relationship	0	19	40.6	33.3	7.1
Customer expectation	0	7	33	55	5
Drafting of specifications	0	29	50	9	12
Product Design	0	16.7	54.8	21.4	7.1
Storage capacities	2.4	52.7	35.7	9.2	0
Level of cooperation with user departments	4.8	9.5	38.1	38.1	9.5

Source: Author's computations based on the field survey 2012

Table 4.2 indicates that, increasing logistics cost such as transportation, material handling and storage is a major problem to the Council. 50% responses show that this is a major problem to the organisation while 21.4% consider it as a threat to the Council's operation. On the other hand, it is clear that supply chain management expertise is not a major problem to the organization. 31.1% responses assert that there is enough professional expertise to manage supply chain practices, while 57.1% hold a similar view that it is a 'slight problem'. Again, the study showed that the Council has control over its core services, most of the responses (35.7%) believe that the Council's ability to concentrate on core services is a frequent challenge but are usually managed. However, no responses showed that the Council's inability to manage these services is a threat to the organization. Conversely, information flow is mostly a frequent problem (61%) but can be managed by the Council, but there was no indication that information flow is a threat to the organization. Also, managing supplier relationship is a frequent problem but can be managed. 7.1% responses and 33.3% do not consider this issue as a major problem. On customer expectation, most of the responses (55%) reveal that managing customer expectation in line with supply chain management practices is a slight problem, 5% hold the view that it is not a problem at all and there was no indication of threat to the organization. On the average, it can be said that customer expectation is effectively handled by the Council. Although, materials specification is poorly managed by the Council it is not a threat to the organization. 50% responses indicated that drafting of product specifications is a frequent threat to the Council but can be managed. In relation to the findings for the product design, the Council frequently finds it difficult in designing products and services. How products are designed determine material specification needed to produce them. Product design is the most (54.8%) occurring challenge to the Council's supply chain management practices, but it believes it can be managed. In addition, the Council's storage facility is inadequate. 52.7% of the respondents believe that storage capacity is a major problem to the organization, while 2.4% consider it as even a threat to the organization. Finally, harmonizing internal operations within the Council was found to be a problem. Inter-departmental integration is 38.1% a slight problem and 38.1% a frequent problem but can be managed. Should this persist, it could contribute about 9.5% major problem and 4.8% threat to the existing supply chain management practices of the Council.

5. DISCUSSION AND CONCLUSIONS

5.1 Summary of findings

The first objective of the study was to investigate the supply chain practices at the West African Examinations Council. The study revealed a number of these supply chain practices which includes: product quality, joint problem-solving with suppliers, continuous improvement, customer interaction, periodic revaluation of performance, among others. About 53% responses showed that one of the bases for selecting suppliers is product quality. On the average, 31% responses also revealed that the Council solves supply chain related issues on a joint consultation with members within the supply chain. Also, about 45% responses confirmed that necessary support is given by the Council to suppliers. However, continuous improvement was found not fully understood or adopted by the Council, although periodic evaluation is made on supplier performance. Lastly, high level decisions affecting the organization's supply chain is made at a committee level after considering members' input. The second objective tried to assess the basis for making supply chain decisions at the Council. Per data gathered supply chain decisions were mostly found to be supported by information systems, members' representation and the extent of suppliers' reliability that need to be considered while selecting them. Material Requirement Planning, Just-In-Time, and Advanced Planning and Scheduling were all found to be inadequate in the Council's supply chain. Typically, 81% responses revealed that MRP system was inadequate. Finally, investigating into the challenges involved in implementing supply chain practices at the Council was the third objective of the study. Among some of the challenges based on the data analyzed show that partnering with suppliers and customers is problematic as well as difficulty in managing procurement cycles. But, integrating its supply chain activities vertically is not so much challenging. Other factors which were mostly identified as frequent challenges includes rising logistics cost, poor storage facilities, difficulty in drafting specifications for materials, and product design related issues. The challenges leads to increase total supply chain cost, reducing profitability in the long run, making it difficult reap the benefits of effective supply chain management practices.

5.2 Conclusion

Efficient supply chain management practices have greater impact on organizational performance when properly identified and implemented. The main objective of the study was to assess supply chain management practices on organizational performance at WAEC. The research identified that, the Council recently embraced the idea of supply chain management. Current practices undertaken by the Council include solving problems jointly with supply chain members, giving priority to service quality in selecting suppliers, continuous improvement programmes, and periodic evaluation of performances. Despite these practices, there has been a hitch in the flow of the supply chain network which in most cases affects the performance of WAEC as a whole. In essence, it causes delays in conduct of examinations at some centres, release of results, and examination malpractices which go a long way to affect quality in the conduct of examinations by WAEC. In view of the findings above it is recommended that: One, there is the need for the Council to incorporate new supply chain management philosophies such as Total Quality Management (TQM), Just-in-Time (JIT) and Lean Management into its processes. Two Supply chain performance measurements should be an integrative affair applied to the whole processes in the Council's supply chain in order to prevent or reduce functional silos or optimization at one point without reflecting potential consequences at other points in the supply chain. Three, all stakeholders of the Council's supply chain should at every point in time cooperate by ensuring that there is effective information sharing in place. Four, In order to integrate the various activities of the Council as well as sharing information contemporarily information system such as ERP should be adopted. Five, More attention must be given the Council's core activities such test administration. Other activities such as transport and procurement could be outsourced to third parties. This will help reduce the overall wastes in the Council's operations, as well as increasing organizational performance.

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