Supply Chain Collaboration among SMEs in Kenya: A Review of Collaboration Barriers

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Abstract

Small and Medium Enterprise usually face a myriad of challenges ranging from technology to finances. There are many other challenges that affect the SME supply chain collaboration worldwide though some are prevalent in developing world. These challenges inhibit collaboration and finally affect SME performance. Supply chain collaboration barriers are one area that has not been conclusively studied. Therefore, this paper reviewed the supply chain collaboration barriers affecting SME in Kenya since Supply chain collaboration plays a vital role in the development and performance of SMEs. Exploratory research design was used based on desk research that involved a review of relevant literature. Most SMEs account for a large percentage of informal and formal employment in Kenya hence the need to study the barriers.

Keywords: Supply Chain Collaboration, Collaboration Barriers, SMEs, Kenya

1.0 Introduction

The main objective of supply chain collaboration is to focus on improving the efficiency of inter-organizational relationships from source to consumer with particular importance on the interfaces of the various operations in the supply chain. It is widely believed that partners in the supply chain are all focusing on the same goals of relaying goods and services to end users at the lowest cost possible. This will enable the supply chain partners to streamline their processes by eliminating wastes, adjusting their operations and improving communications to effectively serve the supply chain (Simatupang and Sridharan, 2005; Cao *et al*., 2010). Supply chain collaboration has been defined in many ways by different scholars. According to Cao *et al*., (2010) supply chain collaboration is defined as two or more firms that form relationships and work together to plan and execute supply chain operations. It is a process based on mutual respect, information sharing and trust, mutual ownership of decisions and shared responsibility for outcomes (Kahn *et al*., 2006).

Further, Whipple and Russell (2007), defined it as two or more companies working together to create competitive edge and higher bottom- line than can be achieved single handedly. This close cooperation among independent chain partners engaged in joint efforts to successfully meet end user needs at lowest cost possible (Simatupang and Sridharan, 2005). Supply chain management on the other hand is the active management of supply chain functions to achieve a sustainable competitive edge and optimize customer value. Supply chain management has also been defined as an integrated approach beginning with scheduling and control of materials, services, logistics and information flow from upstream to downstream and signify a shift in business management practice (Fantazy, 2010). It is a conscious effort by the supply chain partners to develop and run supply chains in the most efficient and competent manner. Supply chain collaboration takes place when chain members share information freely, work together to solve common problems, devise joint planning and manage risks together (Simatupang and Sridharan, 2005; Fantazy, 2010). The success of collaboration depends on trust, commitment, and effective communications by specifying responsibilities and conflict resolution techniques (Magnan *et al.*, 2002). Supply chain collaboration practice in supply chain management has established itself as a sustainable business operation.

The ultimate goal in supply chain collaboration is to create value for the end consumers as well as the business partners in the supply chain network (Sanders, 2008; Simatupang and Sridharan, 2005; Fantazy, 2010). To accomplish this, firms in the supply chain network must combine their process together internally and externally with other firms in the network in order to succeed. Supply chain collaboration can sometimes be a very difficult task, since it requires total preparedness, training, competent business partners and a change in one or more organizational cultures. A successful supply chain collaboration requires transformation from managing individual functions to incorporation of all activities into key supply chain processes (Chopra and Mendhl, 2001; Juanqiong *et al.,* 2007). It involves partners sharing information facilitated by integration of their business processes. Supply chain collaboration involves collaborative work between suppliers and buyers, common systems, joint product development, shared information and risk. Integrated supply chain requires continuous information flow in real time for efficiency.

According to Bagchi *et al.,* (2005), the wide spread use of web based technologies and increased competition in global economy has given rise to supply chain collaboration across many sectors. Further, the use of Information Technology has contributed and facilitated the growth of supply chain collaboration in Kenya. The concept of collaboration has made a significant growth in Kenya from being theoretical to highly competitive edge enhancer in supply chain management. Most firms have now realized the benefits of information technology in streamlining their processes and especially in supply chain. As a result it has become popular among the business community from small and medium enterprises (SMEs) to major companies. However, despite the many benefits that collaboration provides to firms adopting it, most firms still face a lot of barriers.

1.1 Small and Medium Enterprises in Kenya

Small and medium enterprises (SMEs) play an important role in Kenya's economic growth. According to Ong'olo and Odhiambo (2013), SMEs form a critical sub-sector that employs about 80% of the Kenyan workforce. Small and medium enterprises sector commonly referred to as *jua kali* constitute over 70% of manufacturing firms in Kenya and accounts for over 40% of the total employment (CBS-GoK, 2006). Small and medium enterprise is defined as an organization employing between 1 to 50 employees and with a ranging annual income of Ksh 4 million to Ksh 100 million (CBS-GoK, 2006). European Union (EU) defines SMEs as made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro or an annual balance sheet total not exceeding 43 million euro. The Government of Kenya is currently promoting this sector through reservation of 30% of government's procurement budget to marginalized groups. This has led to the growth of new small and medium enterprises run by youths, women and persons with disability with the aim of creating new jobs. Government has also recognized SME sector as the force that will help the country achieve middle class economy. With the current enabling environment of entrepreneurship, innovation and the new Micro and Small Enterprise Act 2012, the evolution of SMEs in Kenya is set to bud. However, the impact of growth of SMEs depends on the design of the regulatory policies inclined to support SMEs in any economy.

Small and medium enterprises operational and business opportunity has been influenced by the regulatory and institutional reforms heralded by the new constitution in Kenya. All over Kenya, SMEs are increasingly growing in recognition in terms of the important role they play in socioeconomic growth. In Kenya, most small and medium entrepreneurs engage in informal business structures with no formal strategic planning and recognized management frameworks (Ong'olo and Odhiambo, 2013). These SMEs often fail owing to competition from established sector players, inadequate loan facilities, poor technological and corruption propagated by licensing authorities. While SMEs provide good opportunities for economic development of the nation, they are not safe from factors that lead to business failures. Despite their importance in the economy, past statistics show that three out of five SMEs fail within the first few months of operation in Kenya (CBS-GoK, 2006). The most common reason for high failure rates is due to political instability, negative perception towards SMEs products, inadequate resources such as credit and unfair competition from established firms.

1.2 Supply Chain Collaboration

As companies move toward integrating their internal functions and begin to appreciate the workings of the larger systems to which they belong, they begin to generate vivid understanding of the scope of supply chain collaboration. Whipple and Russell (2007), described collaboration as two or more companies working together to create a competitive advantage and higher profits than can be achieved by acting alone.

Successful collaboration relies on the development of mutual trust between business partners, as well as the readiness to share information that can benefit all within the supply chain. The goal is to treat all the supply chain partners equally. This mutual level of trust is enhanced by putting in place a set of service-level agreements and associated performance measurement tools that provide everyone with rapid and accurate feedback on how well collaborative efforts are being executed (Simatupang and Sridharan, 2005). Collaboration can be evident in many different aspects of the supply chain and can be encouraged to grow in the already existing relationships between parties that have contractual relationships (Whipple and Russell, 2007). Some supply chains have grown to be very complex with multiple stages in the process. In Kenya supply chain collaboration has been witnessed in manufacturing sector, for example, where barley farmers collaborate with beer manufacturers. However, for small businesses even to some extent established firms do experience challenges in adopting supply chain collaboration practices. This paper therefore reviewed literature on the barriers that Kenyan SMEs encounter while adopting supply chain collaboration in supply chain management.

1.3 Benefits of Supply Chain Collaboration

The benefits of such collaboration are considered to be important within the supply chain. Research has shown that firms that adopted supply chain collaboration gained several benefits in terms of improved product quality, cost reduction, better risk management, demand planning and economies of scale in production (Sanders, 2008, Chopra and Mendhl, 2001). Information technology as the driver of collaboration has facilitated supply chain collaboration which has made it possible for chain partners to share information on markets, demand and supply in real time (Rowland, 2008; McLaren *et al.,* 2000). Other benefits are: reduced inventory levels due to the increasing technological changes, enhancing customer service by reducing lead times and reduced time in product development among many more.

2.0 Supply Chain Collaboration Barriers Faced by Small and Medium Enterprises (SMEs) in Kenya

In Kenya, Small and medium enterprises (SMEs) can be categorized into three categories: microenterprise, small enterprises and medium enterprises. These categories are based on the number of employees and sales turnover. Kenyan SMEs face various barriers and challenges which prevent them from further expanding their business and markets. These barriers arise from wide-ranging institutional changes, globalization, technology and liberalization of organizations. Other scholars summarized the barriers into: interpersonal, organizational and individual. Most research findings have shown that competition, inability to get loan, inability to source skilled labor and lack of government support as major problems that SMEs face. Other challenges are; technology barriers, poor networking amongst the important players in the market, lack of market access, inadequate finance and competitions from established firms. In Kenya SMEs continue to face stiff competition from well established local and international firms, limited capability to meet the challenges of market globalization and liberalization. Others are limited capacity for knowledge acquisition, technology management and limited access to capital. Most SMEs are normally set up and operated by individuals who may not have the skill to effectively manage the whole business. The founders may have specific skills such as sales, production and product development but lack other vital competencies which are critical for the success of the business undertaking. It is against this backdrop of deficiencies that create need for external service providers to bridge the gap. The below are some of the barriers impeding on SME collaboration growth in Kenya:

2.1 Lack of Trust

Successful supply chain collaboration between partners requires trust and commitment. Lack of trust is seen as the major stumbling block in supply chain collaborations. Trust is earned and it grows over time between supply chain partners. With time, each participant earns trust while it builds its reputation among the other business partners. Business relationships employing trust result in win-win outcome for all the partners. However, organization practices, culture and human nature will not change overnight. Distrust among business partners especially in research and development (R&D) and sharing of information has contributed to downfall of many SMEs. Until parties understand that it is in their own best interest to trust each other and share information, supply chain management success will be an uphill task.

2.2 Lack of Credit

Lack of access to credit line is a major problem to SME's world over. This affects acquisition of technology by limiting the number of alternatives that can be considered. Some firms may use inappropriate technology because it is the only technology they can afford financially. In some cases, even where credit is available, SMEs may lack ability to tap into the opportunity by making wise lending choices. SMEs may also lack liberty of choice because the lending conditions may force the purchase of heavy, immovable equipment that can serve as collateral for the loan. Credit challenges operate in various ways in Kenya where capital market forces entrepreneurs to rely on self- financing or borrowing from friends. Lack of access to long term credit for small and medium enterprises forces them to rely on high cost short term lending from shylocks. The high cost of credit, high bank charges and fees in Kenya is also an impediment to SME collaboration and growth (Wanjohi and Mugure, 2008). Lack of access to formal credit has given room to informal lenders such as shylocks and pyramid schemes offering expensive credit facilities. Access to finance remains a major challenge facing SME's in Kenya and world over.

2.3 Technology Barriers

Lack of appropriate technology has been cited as an impediment to SME collaboration, innovation and growth. Most SMEs lack the capital to develop or acquire appropriate technologies. The most persistent barrier to greater supply chain coordination and cooperation is lack of adequate information systems. Insufficient information systems support is a critical barrier since collaboration is essentially information based. It is simply impossible to coordinate value-added activities across functional and organizational boundaries without shared information regarding product designs, order status, delivery schedules and inventory levels among other transaction-oriented variables. Besides, the accessibility of relevant, accurate and timely information is essential to supply chain efforts to reduce inventory and enhance customer care. Insufficient information systems can lead to the problem of managing complex supply chain networks requiring the collection and analysis of huge amounts of data. However, a technological advance in computer science has led to greater use of data servers that collect and store huge quantities of data.

Previous studies have shown that through the use of communication tools, such as internet, organizations can build value in their supply chain partnerships. Efficient supply chain networks can offer considerable improvements in productivity and in customer satisfaction by making available real-time information networked around the organization and giving full supply chain visibility (Rowland, 2008). However, making incongruent technology platforms compatible is a huge challenge, especially when multiple partners are involved in multiple regions with different levels of technology know-how (Barratt, 2004). Granted that all companies can use email, phones and fax interchangeably, more specialized systems for purchasing, inventory management and business intelligence are unlikely to be the same between collaborating partners. Selecting collaboration software that fits the needs and resources of all chain partners can be the biggest obstacle to collaboration. There is need to find technology that is flexible to support a wide range of external and internal systems for purchasing, planning and finance. This must go hand in hand with dissimilar connectivity protocols. Such a technology can greatly reduce technology barrier and enable more supply chain partners to collaborate on the same platform.

2.4 Risk Barriers

It is easy to get support from a few people for a supply chain collaboration project as long as there is value, but where many partners are involved it is not as easy. Increase in company size, project costs, time investments and information sensitivity comes with increase in risk such as information leakage to competitors among many more (Naslund *et al.*, 2008). Therefore the benefits of collaboration must outweigh the risks to avoid partners preferring working as individuals. More risk exposure within the supply chain collaboration can cause disintegration of the partnership. Therefore, supply chain partners must collectively identify, share and manage risks in a timely manner. Information leakage poses the greatest hindrance to supply chain collaboration among SMEs in Kenya.

2.5 Lack of Knowledge

The *jua kali* sector lacks technological know-how and business skills. Most of entrepreneurs who operate such SMEs lack sufficient business skills mainly attributed to low levels of education. The level of education is not adequate to know how to produce a high quality product at low cost. The manufacturer must also possess effective selling, marketing and cost control skills which most SMEs lack.

Bringing together the network of firms to work as a team successfully, requires good interpersonal skills and persuasion to ensure other supply chain partners do the right thing (Haji-Pakir *et al.,* 2010). The knowledge differences in organizations means that organizations must successfully manage their supply chains by spending significant amount of time increasing the capabilities of the supply chain members. As firms build their supply chain information infrastructure, they may find themselves with various information management systems that need to be integrated both internally and externally to ensure information flow. Hence, firms must understand the need of continuous training of the persons to use the system. Successful supply chain collaboration requires constant training of staff so as to build their skills in innovation and entrepreneurship.

2.6 Culture/organizational Barriers

Organizational challenges touch on several issues such as performance, the mutual benefits and availability of clear vision for the company (Kubickova *et al*., 2009). Supply chain collaborations do not succeed if organization culture is not helpful and partners are unhappy with each other. Workplace culture, lack of management commitment to collaboration and unsuitable support structures can contribute challenges to supply chain collaboration to a level of collaboration termination (Kubickova *et al*., 2009). Lack of understanding or failure to choose correct partners in supply chain management can lead to collaboration failure (Barratt, 2004). To find the right timing on when to collaborate and the selection of partners to collaborate with is important for a successful partnership. Work culture and attitude among employees can also impede collaboration. Organizations where employees have bad attitude towards collaboration, may struggle to implement supply chain and process improvement programmes due to resistance to change (Rowland, 2008; Barratt, 2004). Most SMEs in Kenya lack skilled management staff which affects their collaboration especially due to lack of strategic appreciation of supply chain collaboration benefits.

2.7 Lack of Effective Metrics

Metrics that include performance measurements from all members of the supply chain are essential. Supply chain partners should focus on optimizing the chain operations as opposed to individual firms. Members of supply chain need to work collaboratively to ensure mutual gains and savings for better service delivery. This calls for partner SMEs playing oversight role over the supply chain to measure the performance of activities and organizations that are not directly under their control (Magnan *et al.,* 2002). Lack of end-to-end visibility across the supply chain could lead to performance improvements becoming extremely difficult. This will affect the quality of collaboration.

2.8 Security and Safety

Security across the entire supply chain, ranging from planning comprehensive disaster recovery to coping with hackers and other malefactors is essential. The fact that a company may not survive a significant violation in supply chain security should be incentive enough to assess its vulnerability and close any identified security gaps. Nowadays, a company must assess security across its entire supply chain and it must ensure that each partner prevents the introduction of unauthorized materials and people. Business environments are increasingly depending on outsourcing; hence, particular attention should be paid to qualifying supply chain partners (Naslund *et al.,* 2008). This requires that new partners put in place security controls that exceed established requirements and can authenticate their execution. It is equally important to work with existing chain partners to assess and address actual and potential security deficiencies that may impede on collaboration. A secure supply chain will promote collaboration.

2.9 Relationship Barriers

Relationship or interpersonal barriers are related to the interaction between individuals. Relationship uniqueness is characterized by trust, good partner fit and past experience. According to Lambert, (2008), power play between partners can ruin relationship between partners. This is true since those partners with less power may be sidelined in making decisions and this may cause them to dissent. This usually causes mistrust and suspicion within the supply chain. Supply chain collaboration can also be curtailed when partners are unwilling to cede their own power or unwillingness to share information with other partners (Lambert, 2008). This could get worse to a point where the stronger partner may put pressure on the weaker partner to leave so as to pass through their agenda, which can increase uncertainty about the future of the partnership. The experience that partners bear during collaboration will form the future involvement and also motivation. Past experience tends to influence the future likelihood to collaborate or enter into partnerships.

In order to maximize supply chain collaboration benefits, chain partners must understand how relationships begin, grow and work. SMEs within the supply chain must have good communication, be honest and committed and treat each other well.

2.10 Alignment Barriers

This is caused by inconsistent goals, objectives and poor measurement practices. Different goals lead managers to make self-centered decisions that are frequently in opposition to those made by other supply chain members (Naslund *et al.*, 2008). Only when the various members of a supply chain are pulling in the same direction or working toward common goals can competitive product offering be developed and managed for posterity. Closely related is the fact that as an organization pursues different projects based on its own priorities, its supply chain partners are likely to become frustrated. In this scenario, mismatched goals will lead one or more members of the supply chain team to view the other members as only partially committed to the course. Different goal structures make supply chain collaboration difficult.

2.11 Human Resource Barriers

Organizations with employees that possess ability to influence others, exhibit better communication abilities while those with disciplined employees have good planning and organizational skills. Such skills can benefit collaboration immensely. Sociability is demonstrated by the ability to build relationships and friendships influenced by strong leadership skills (Kubickova *et al.*, 2009). Those organizations with employees that lack sociability, discipline and ability to influence will find it hard to support collaboration or relationships. Individual comfort zones of working with internal teams could cause a partner to protect his/her territory thereby disrupting the collaboration process. Diverse management methods, hurried change in employees and the process of decision making will affect the relationship too. Smith *et al*., (2006) found out that differences in managerial perceptions among American and Indian engineering firms were found to account for the observed variations in exporting activity. Supply Chain collaborative arrangements may face the unpredictability of the future as policies developed by multiple stakeholders and organizations can become fragmented. Traditional organizational borders internally and externally, can impede collaboration because they promote a desire to protect perceived strongholds. People will always tend to hold resolutely to their comfort zones, efforts to alter organizational borders and redefine responsibilities will always end up in employee resistance.

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