

Link between Negotiation and Supply Chain Agility

Wainaina, Githii Michael* and Wairimu, Githii Gladys

**Department of Management Science and Project Planning, University of Nairobi, Kenya.*

ABSTRACT

The aims of this study were to determine the issues negotiated by supermarkets and product suppliers and to find out the relationship between these issues and supply chain agility. The study adopted a cross-sectional survey design. The outcome from the study revealed that supermarkets indeed engage suppliers in negotiations on different considerations and that there is a positive relationship between negotiation and supply chain agility.

Keywords: *Negotiation; Supply Chain; Agility*

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I. Introduction

In recent years the business environment has drastically changed due to the dynamics in the environment which has made firms to become more complex. This has therefore made firms to search for new ways such as making their supply chains (SC) agile and adopting negotiation at the operational level for them to remain relevant and competitive. Good negotiation skills help firms build long lasting relationships, deliver qualified solutions and avoid future conflicts with suppliers (Quinn and Hilmer, 1994). Rubin and Brown (1975) see negotiation as a process where individuals with the same goals in mind meet and agree on issues they are discussing. It is a discussion between parties regarding a contract, agreement or relationship where they are dependent on each other and have objectives that might contradict each other. Negotiation is an important aspect to business managers since it helps them develop critical thinking and effective communication skills (McClendon et al, 2010). Good relationships and negotiations with suppliers help organizations meet their goals of maximizing on profits and minimizing on costs (Ertel, 1999; Handfield et al., 2006). Supply chain agility on the other hand is a way of ensuring customers' expectations are satisfied by ensuring that the required changes in the organization are met on time - being responsive to market demands and keeping productivity high (Sharifi et al, 2006). Supply chain agility represents how quickly a supply chain retorts to the changes in its business environment, competitive forces, buyer's tastes and preferences and so on. An agile supply chain is also said to be a procedure of product movement concerned with doing things very fast and at the same time minimizing costs and also being responsive to market requirements while maintaining flexibility and keeping production high (Ambe, 2009).

The supermarket sector over the years has assisted producers to make available their products all over the country. This industry has enabled both high- and low-income earners to access products and services at fair prices as per the amount required. Supermarkets have led to job creation in the country thus enabling the economy to grow and thus transforming the market business. To achieve this more, there is need for cutting of costs through adoption of negotiation skills (Carvalho, 2012).

This study therefore sought to find operational issues that supermarkets negotiated with suppliers. And further to establish whether in implementation of such agreements, the entire SCs are agile and supportive. The study commences with a review of general literature about negotiation in SC management, SC agility and the context of the study. This is closely followed by a discussion of the research design adopted to realise the objectives of the study and the data analysis undertaken to reach the relevant conclusions.

II. Literature Review

2.1 Negotiation in Supply Chain Management

Negotiation is a discussion between two or more parties which takes into account the needs and interests of all the parties so that they end as winners (Dudek and Stadtler, 2005). It is a very important aspect of the supply chain members since it helps them avoid conflicts thus leading them to finding alternatives that suit them well. It is that process where negotiators decide to resolve disagreements and divide resources satisfactorily and is carried out voluntarily (Zohar, 2015). An agreement is reached without parties having any disputes or arguments. Brett (2000) explained that negotiation is a process where parties have a beneficial social interaction amongst themselves so as to attain some goals. From an operations management perspective, it entails discussing issues such as quality, cost or price, quantity, delivery flexibility, technology and innovation.

According to Kaufman et al (2018) there are three dimensions of negotiation; set up, structure and discussion. *Setup* entails the structure that guides the negotiator about the other party involved in the negotiation table. It is always good to have a conducive environment for discussion where one is aware of what the other party is offering. *Structure* is more of a proposal prepared in such a way that the other party can have valuable options to consider and later lead to a common ground of agreement. Lastly, discussion entails presentation of the offer to the other party. Both parties discuss about the proposal until a consensus is arrived at or where negotiators decide to quit negotiating. Implementation of good negotiation issues facilitates the firm's ability to attain effective low-cost procurement processes which improves profitability. Good negotiated agreements contribute a lot to the supply chain members as they are able to build better relationships and reach mutual beneficial results (Dudek and Stadtler, 2005).

Negotiated Issues

There are a number of issues that firms can negotiate on to ensure that they meet their objectives; those related to the topic of study are quality, cost, and delivery flexibility and information technology.

Reeves and Bednar (1994) define quality as greatness in goodness of value that meets a customer's expectations or goes beyond what a customer had expected. It is also said to be the totality of hallmark of a product that brings full satisfaction to a customer in need when demand is high. When negotiating, supermarkets ensure that their suppliers have good systems and policies that enable them monitor and manage their products thus enabling them to produce goods of high quality. This is done by establishing measures that enable suppliers adhere to quality conformance and ensuring detection of any defects early in the process (Lysons, 2008).

Costs entail how a firm can manage its production costs and other related aspects like overheads, inventory and value-added (Abdulkareem et al, 2013). Supermarkets can save costs by practicing economies of scale with their suppliers. By so doing, the suppliers are able to lower commodity prices. Also, having a database of suppliers helps firms negotiate on lower costs for long term relationships and still avoid incurring costs related to supplier appraisals every time supplies are needed.

Delivery flexibility is described as how fast products are delivered to the market place (ibid, 2013). According to Kumar (2007) delivery entails a lot of factors such as how fast a product or service is made available to the supermarket by suppliers on short term notice in case of a crisis, how the suppliers can be relied on when it comes to the development of the products or services and how fast modifications and improvements in these products and processes can be made as per client orders.

Information technologies (IT) used in SC management varies from organization to organization depending on the type of activities carried out, however, those used in Supermarkets include; supply chain management systems (SCMS), Internet or Web, electronic data interchange (EDI), Barcodes and mobile technologies like mpesa services. They enable organizations to receive and share information on time thus ensuring SC functions are run smoothly. Supermarkets should discuss how much information they should share with their suppliers and how both parties' systems should be linked to each other for easier communication (Kamau, 2014).

2.2 Supply Chain Agility

Agility is the potentiality of a firm to act very fast to the turn arounds that take place in the business environment which are brought about by unexpected shifts in supply and demand (Lee, 2004). There are five dimensions of agility namely; alertness, accessibility, decisiveness, swiftness, and flexibility (Gligor, 2013; Gligor et al, 2013). However, only three apply to the extant study; alertness, accessibility and decisiveness. *Alertness* entails the capability of a business firm to smell out changes, opportunities and threats. According to Sharifi & Zhang (1999) firms need to be in a position where they can sense and anticipate changes in the business environment. By having good relationships with their suppliers, supermarkets are able to get information about any changes in the business environment like for example what their competitors are up to. *Accessibility* is the capability of supermarkets to very fast access important information. Atkinson & Moffat (2005) allude that information presence is one of the important precursors for agility. Supply chain members must agree during negotiation on how they can share information on inventories, demand of goods/services and production (Woo et al, 2015). Access to this current and relevant information allows supermarkets to very fast notice any changes in the business environment (Overby et al, 2006). *Decisiveness* is the ability of a supermarket to make decisions using the available information as acquired. Speeding up of the decision phase in a supply chain helps firms achieve an agile response (Gligor, 2013). The decision-making phase of the supply chain should be agreed on early in the negotiation process to be always as short as possible in a way that provides ample time to implement agreements.

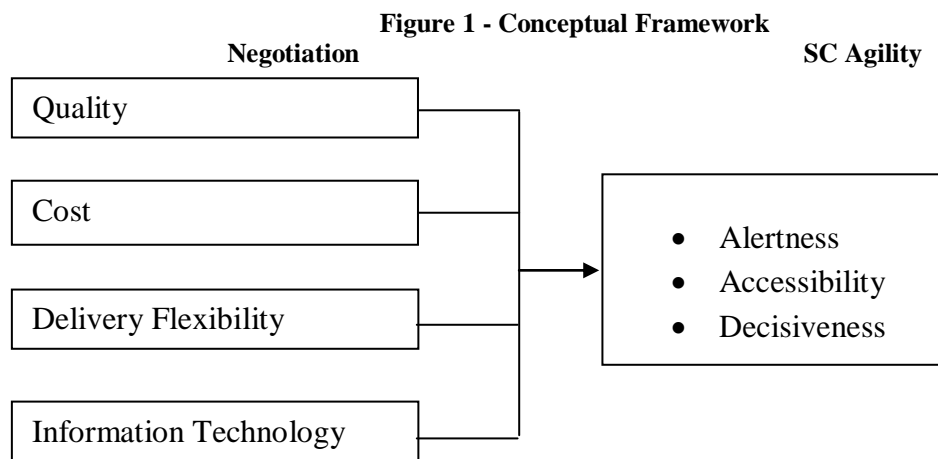
2.3 Negotiation and Supply Chain Agility

SC agility enables supermarkets to quickly provide the required product at the best time that the customer or the market needs it (Ravi et al, 2005). It is propositioned here that through negotiating on issues

such as quality, cost, delivery flexibility and the type of information technology used, supermarkets would be able to keep their supply chain agile - able to embrace changes for growth that will lead to profitability and satisfy customer demands. Implementation of negotiated issues facilitates the firm's ability to attain effective low-cost procurement processes which improves profitability. Fairly negotiated agreements contribute a lot to the supply chain members as they are able to build better relationships and reach mutual beneficial results (Dudek and Stadtler, 2005). When supermarkets adopt good negotiations with their suppliers the end result becomes a workable supply chain agility thus enabling them to remain in market and competitive. Supply chain agility uses real time data to specify how the SC responds to changes in the business environment.

Conceptual Framework

The relationship between the issues negotiated by supermarkets (quality, cost, delivery flexibility and information technology) and SC agility (alertness, accessibility and decisiveness) is summarized into a conceptual framework (Figure 1) below.



III. Methodology

Since the purpose of the study was to establish whether there exists a relationship between negotiated issues like quality, cost, delivery- flexibility and information technology and SC agility, explanatory cross-sectional survey design was deemed appropriate. All the sixty eight supermarkets in Nairobi formed the target population. A census was conducted whereby each supermarket was issued one questionnaire, allowing for uniformity of responses (Cooper and Schindler, 2006). The respondents were procurement officials or equivalents of the sixty-eight supermarkets. Data gathered from the study was edited, coded and analyzed to certify correctness. Data gathered was analysed whether the hypothesised negotiated issues were actually negotiated by supermarkets and was evaluated by use of descriptive statistics – specifically arithmetic means and standard deviations. The relationship between the negotiated issues and supply chain agility in supermarkets was examined by use of multiple regression analysis.

IV. Findings and Discussions

Findings suggest that all the four issues - cost, quality, delivery flexibility and information technology - are negotiated to a large extent. Regarding the relationship between the negotiated issues and SC agility of supermarkets, there seems to exist a positive relationship between negotiation and SC agility - alertness, accessibility and decisiveness. The multiple regression models showed that the relationships were statistically significant within a 5% significant confidence level. The coefficient of multiple determination (R-Square) derived from the alertness model presented a value of 0.479 meaning that 47.9% of supermarkets alertness is explained by the negotiated issues discussed while for the accessibility model presented a value of 0.484 meaning that 48.4% of Supermarkets access to important information involves the issues negotiated and lastly the decisiveness model presented a value of 0.460 meaning that 46% of supermarkets decision making process involves the issues negotiated. These meant that there exist other factors that influence SC agility. These findings relate to those of Betts (2009) who found out that SC agility was a relatively new concept within the supply chain literature that needed future researchers to explore more on it.

V. Conclusions

It is evident that supermarkets do negotiate on quality, cost, delivery flexibility and information technology with their suppliers to a considerable extent. This was stipulated on by conclusions from descriptive

statistics which showed predominantly that all the negotiated issues had been put into action and thus negotiation is carried out effectively with suppliers. All the relationships were statistically significant at (p-value) $p < 0.05$. This therefore means that the negotiated issues are good predictors of SC agility.

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