

EFFECTS OF SUPPLY CHAIN MANAGEMENT PRACTICES ON COMPETITIVE ADVANTAGE IN RETAIL CHAIN STORES IN KENYA, A CASE STUDY OF NAKUMATT HOLDING LIMITED

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ABSTRACT

Effective supply chain management (SCM) has become a potentially valuable way of securing competitive advantage since competition is no longer between organizations, but among supply chains. This study conceptualized and develops four dimensions of SCM practice (strategic supplier partnership, customer relationship, information sharing and postponement) and tested the relationships between SCM practices and competitive advantage. Data for the study was collected from Nakumatt holding and the findings were used to determine whether higher levels of SCM practice can lead to enhanced competitive advantage in Nakumatt supermarket. The purpose of this research was to determine the impact of supply chain management practices on competitive advantage. The study focused on the causal relationships between SCM practice and competitive advantage and ignored the possible recursive relationships. This study adopted a case study design. The target population consisted of 968 employees. The study utilized 10% of the target population which was selected using a stratified random sampling technique giving a sample size of 100 respondents. Questionnaires were used as the main data collection instrument and a pilot study was subsequently carried out to pretest questionnaires for validity and reliability. The gathered data was analyzed using descriptive studies aided by Statistical Package for Social Sciences (SPSS) version 20 and findings presented on frequency tables, figures and graphs, inferences drawn from the data obtained. Correlational analysis and multiple linear regressions were carried out to establish the relationship between the research variables.

Keywords: *Supply Chain Management Practices on Competitive Advantage.*

Introduction

As Supply chain competition in the 1990s intensified and markets became global, so did the challenges associated with getting a product and service to the right place at the right time at the lowest cost. Organizations began to realize that it is not enough to improve efficiencies within an organization, but their whole supply chain has to be made competitive. The understanding and practicing of supply chain management (SCM) has become an essential prerequisite for staying competitive in the global race and for enhancing profitably. SCM is the strategic coordination of the traditional business functions and tactics across these businesses functions within a particular

organization and across businesses within the supply chain for the purposes of improving the long-term performance of the individual organizations and the supply chain as a whole (CLM 2005).

The goal of SCM is to integrate both information and material flows seamlessly across the supply chain as an effective competitive weapon. The concept of SCM has received increasing attention from academicians, consultants, and business managers alike. Many organizations have begun to recognize that SCM is the key to building sustainable competitive edge for their products and/or services in an increasingly crowded marketplace (Johnson, 2008). The concept of SCM has been considered from different points of view in different bodies of literature, such as purchasing and supply management, logistics and transportation, operations management, marketing, organizational theory, and management information systems.

The retail chain business in the world has a variety of successful examples such as; Wal-Mart, IKEA, Tesco, Target and so on. Wal-Mart retail chain was founded by Sam Walton of the USA. It has over 8,000 stores in 15 countries, Wal-Mart stores are stocked with thousands of low-cost products imported from developing countries with low-wage workers and often poor environmental regulations (Stevenson, 2007). The company has responded by increasing the energy efficiency of its U.S. trucking fleet and many of its buildings in the United States, Canada, and China.

Nakumatt Holdings Ltd Supermarket is the largest retail market player in East Africa, Uganda and Rwanda, and still expanding to the wider East African region, Nakumatt has 50. stores dealing in general retail merchandise. Established in 1987, Nakumatt Holdings Limited stays ahead of competition by providing quality, value, service, variety lifestyle. Nakumatt store formats range from convenience stores, supermarkets to hypermarkets which showcase distinct world-class shopping floor layouts and amenities. All Nakumatt branches hold a range of over 50,000 quality Products, thanks to its rich heritage and passion for retail excellence, Nakumatt stores countrywide have carved out a niche for themselves as the ideal shopping and entertainment centers for the whole family.

Nakumatt prides in delivering quality, value, service, variety and lifestyle enhancing products. The company boasts a dynamic management team committed to getting the best possible results so that the accumulated benefits can be passed on to consumers via access to a broader range of quality, affordable products and excellent services. Nakumatt goal is to create a chain of superstores in strategic locations delivering quality, value, service, variety and lifestyle, with convenient opening hours giving everyone the opportunity to shop at any of its stores in the region. To ensure a clear focus of quality across the organization and direct employee activities towards quality, customer focus and continual improvement, Nakumatt top management is committed to a Quality Policy Statement. Nakumatt has distinguished itself from its peers in various ways: The retail chain is proud of its cutting-edge Oracle retail IT system that took an investment of more than KSh 140 million (2 million US dollars) to roll out. Nakumatt's environment and quality policy ensures that customers are afforded products and goods that meet world environmental and quality standards.

Statement of the Problem

Retail chain business in Kenya and the East African region has undergone rapid transformation. This growth has not come without any challenges. Some retail supermarkets (Uchumi supermarket) have undergone collapse, receivership and eventual revamping after government intervention. Nakumatt has acquired Woolworth supermarket and increased its presence in East African region. Tuskys and Naivas have also expanded their network in the region. The high growth of this single stop shopping has placed Kenya as a supermarket hub in comparison to the rest of Eastern Africa in supermarkets presence. Kenya has approximately 206 supermarkets beside the existing hypermarkets (Business Report 2000). The McKinsey Global Institute (MGI 2010) projects that the number of African households with discretionary income over \$5,000 will rise from 85 million to 128 million by 2020 .The increase in income will further increase the retail branches, till rate and rise in competition.

While most retail outlets tend to cherish competition and encourage growth, it is surprising that two third of these firms drop out of the growth curve of the product lifecycle. A significant fraction of these progress to maturity and stagnate shortly before crashing down. Most of these firms face this trend because retail business is volatile and there is also increasing competition in major markets due to inadequate contingency planning and incompatible growth retail models (Agarwal, & Audretsch, 2001). Moreover frequent changes in consumer trends and short business cycles are also some of the challenges in the retail supply chain requiring agile models. Global research by Siggelkow (2001) show that most business that has employed agility in their operations have succeeded. Advanced design and logistic links with suppliers are related to better-performing plants (De Toni, 2000). Insufficient attention to SCM practices concentration on core competencies, use of inter-organizational systems such as EDI and elimination of excess inventory levels by postponing customization toward the end of the supply chain has led to firms performing poorly. There are low level of supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity and JIT capability (Froehlich and Westbrook, 2003) which have contributed to poor performance of retail chain stores. The Practice of supplier base reduction, long-term relationship, communication, cross-functional teams and supplier involvement to measure buyer–supplier relationships has been poorly utilized (Tan, 2002). There is need to provide effective ways of managing retail chain stores using supply chain management practices that will see them gain competitive advantage.

Objectives of the Study

General Objective

The general objective of this research was to determine the effects of SCM practices on competitive advantage in Nakumatt supermarket.

Specific Objectives

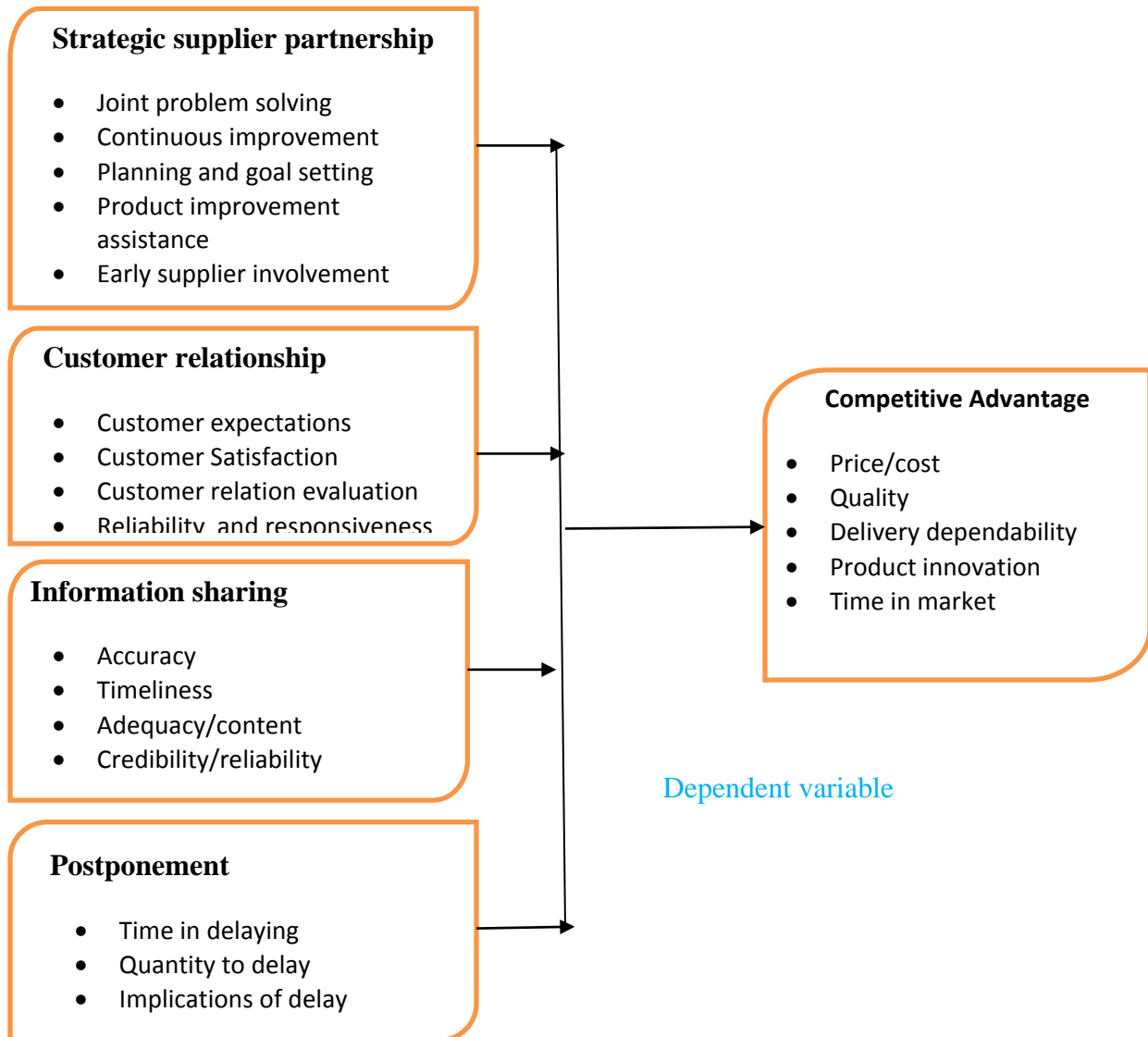
This study was guided by the following specific objectives:

- i). To determine whether Strategic supplier partnerships have effect on competitive advantage in Nakumatt supermarket,
- ii). To establish the effects of customer relationship on competitive advantage in Nakumatt supermarket.

iii)To examine the effects of information sharing on competitive advantage of a firm in Nakumatt supermarket.

iv)To assess the effect of postponement of supply chain activities on competitive advantage in Nakumatt supermarket

Conceptual Framework



Independent variables

Strategic Supplier Partnership

Strategic supplier partnership is defined as the long term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. A strategic partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts (Gunasekaran, 2001). Such strategic partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more key strategic areas such as technology, products, and markets. Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment (Tan, 2002). Strategically aligned organizations can work closely together and eliminate wasteful time and effort. An effective supplier partnership can be a critical component of a leading edge supply chain (Noble, 1997).

Customer Relationship

Comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. Noble and Tan consider customer relationship management as an important component of SCM practices. As pointed out by (Day, 2003) committed relationships are the most sustainable advantage because of their inherent barriers to competition.

The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival (Ragatz, 2007). Good relationships with supply chain members, including customers, are needed for successful implementation of SCM program.

Information Sharing

Information sharing has two aspects: quantity and quality. Both aspects are important for the practices of SCM and have been treated as independent constructs in the past SCM studies. Level (quantity aspect) of information sharing refers to the extent to which critical and proprietary information is communicated to one's supply chain partner (Monczka, 2008) Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information (Menzter, 2000).

Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain. By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage. (Lalonde, 2008) considers sharing of information as one of five building blocks that characterize a solid supply chain relationship. Supply chain partners who exchange information regularly are able to work as a single entity (Stein and Sweat, 2008). Moreover, Tompkins and Ang consider the effective use of relevant and timely information by all functional elements within the supply chain as a key competitive and distinguishing factor. The empirical findings of (Childhouse, 2003) reveal that simplified material flow, including

streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain.

Information sharing also includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged (Morberg, 2002). While information sharing is important, the significance of its impact on SCM depends on what information is shared, when and how it is shared, and with whom. Literature is replete with example of the dysfunctional effects of inaccurate/delayed information, as information moves along the supply chain. Divergent interests and opportunistic behavior of supply chain partners, and informational asymmetries across supply chain affect the quality of information (Feldman, 2003).

It has been suggested that organizations will deliberately distort information that can potentially reach not only their competitors, but also their own suppliers and customers (Mason-Jones, 2007). It appears that there is a built in reluctance within organizations to give away more than minimal information since information disclosure is perceived as a loss of power. Given these predispositions, ensuring the quality of the shared information becomes a critical aspect of effective SCM (Feldman, 2003).

Postponement

Postponement is defined as the practice of moving forward one or more operations or activities (making, sourcing and delivering) to a much later point in the supply chain (Van Hoek, 2010). Two primary considerations in developing a postponement strategy are: (1) determining how many steps to postpone, and (2) determining which steps to postpone (Beamon, 2008).

Postponement allows an organization to be flexible in developing different versions of the product in order to meet changing customer needs, and to differentiate a product or to modify a demand function (Waller, 2000). Keeping materials undifferentiated for as long as possible will increase an organization's flexibility in responding to changes in customer demand.

In addition, an organization can reduce supply chain cost by keeping undifferentiated inventories. Postponement needs to match the type of products, market demands of a company, and structure or constraints within the manufacturing and logistics system (Pagh, 2005). In general, the adoption of postponement maybe appropriate in the following conditions: innovative products (Fischer, 2007); products with high monetary density , high specialization and wide range; markets characterized by long delivery time, low delivery frequency and high demand uncertainty; and manufacturing or logistics systems with small economies of scales and no need for special knowledge (Pagh, 2005).

Literature Review

Resource Dependent Theory (RDT)

The theory centers on how some firms become reliant on others for needed inputs such as goods and materials, and how firms can manage such relationships (Pfeffer and Salancik, 1978). The asymmetric interdependence that exists in these inter-firm relationships is critical to reduce environmental uncertainty for some firms. As supply chain members work together closely, they often become more dependent on each other thus developing partnerships, alliances and cooperation. Thus, RDT has a high level of value in the supply chain context.

The assumptions in this theory include; commitment to partnership for mutual benefits, creating conditions favorable to be depended on by your partners to create a position of strength, trust in the partnership deal. Thus, from the perspective of best value supply chains, dependencies should be used to create mutual forbearance and trust, not to drive aggressive exploitation of one chain member by another.

The Theory of Customer Service

The theory of customer service is based on identifying and satisfying your customers' needs and exceeding their expectations. A company must be totally committed to delivering consistently high standards of service to gain and retain customer loyalty. Customer satisfaction and loyalty are inextricably linked to the quality of customer service and, ultimately, to the company's competitive advantage hence profitability.

Key assumptions of the theory are; build a Customer Service Culture. Indoctrinate new employees into the customer service culture immediately. Provide comprehensive training programs that make them experts in their field. Empower employees to make decisions that lead to customer satisfaction. Reward outstanding employee performance with recognition in the company newsletter, celebratory dinners, prizes and other perks.

Know Your Customers by profiling them. You can ask them directly, through customer comment cards and surveys at your place of business and on your website. In addition to demographic details, learn what they like and dislike, and how your product or service directly benefits them (Lin, 2002). Note their buying preferences and interests. Consider how your customer perceives quality.

Communication, Establish a continuing dialog with your customers. Keep them informed of special promotions that appeal to their interests. Tell your customers how much you appreciate their business by letter, email or a telephone call. Ask for your customers' opinions on a regular basis to ensure you are consistently delivering good customer service. Pay attention to their changing needs, and introduce new products and services based on customer feedback gathered from surveys. Continually explore new ways to keep your customers engaged. Focus on caring for your existing customers and new ones will naturally follow.

Communication Privacy Management Theory

Communication privacy management theory is a [communication theory](#) first developed by Sandra Petronio. Communication Privacy Management theory describes the ways in which relational actors manage their privacy boundaries and the disclosure of private information. The theory focuses heavily on the processes that people employ to determine when and how they choose to conceal or reveal private information. The theory describes the ever-present [dialectic](#) of privacy and openness within various relationship models, explains how relationships develop as public and private boundaries are negotiated and coordinated, and demonstrates how individuals regulate revealing and concealing information through communication. The theory focuses on the idea that there are not only two contradictory stances within a relationship, but that at any given moment decisions are weighed using multiple viewpoints.

CPM theory considers those rules for access and protection of information by examining the following about information sharing: the types of ownership of information, the circumstances under which sharing occurs, and the expectations of sharing (McAdam R, McCormack D, 2001).

Theory of Postponement

The theory of postponement by [Jim Uchneat](#) is well understood in the supply chain and manufacturing world. With solutions that have several variants, or that require customization, the process is designed to postpone adding variant features or customizations until the last possible moment. Common sub-assemblies may be built to stock, but variants are built to order, and are assembled just before they ship (Min S, Mentzer JT. 2004).

Content creation in this era, where buyer relevance is a core principle, should leverage that same postponement philosophy. The “new producers” on the front line of business – marketing campaign developers, bloggers, inside sales, presales, direct sales and channel partners should be able to custom assemble content just as it is needed. They should be able to do this every day without consuming their day. To do this requires content that is pre-produced in a modular fashion that anticipates their customers’ need for information. Modules must be managed for easy access, selection and final assembly (Waller MA, Dabholkar PA, GentryJJ. 2000).

Just as postponement is designed into a manufacturing production process, it must be designed into a content production process. Key to this is having a well thought out content strategy including a documented understanding of buyer personas, how they buy, their problems, and key messages that map to situation variants. A guiding document, called Content Frameworks, defines what content modules are required and how they support buyers’ information needs.

Empirical Review

SCM is synonymous with the integration of supply base that evolved from the traditional purchasing and materials functions (Banfield, 2000). In the perspective of transportation and logistics management, SCM is synonymous with integrated logistics systems, and hence focus on inventory reduction both within and across organizations in the supply chain. Eventually, these two perspectives evolved into an integrated SCM that integrates all the activities along the whole supply chain.

Topics such as supplier selection, supplier involvement, and manufacturing performance, the influence of supplier alliances on the organization success factors in strategic supplier alliances, supplier management orientation and supplier/buyer performance, the role of relationships with suppliers in improving supplier responsiveness, and the antecedence and consequences of buyer–supplier relationship have been researched on the supplier side. Studies such as those by (Clark and Lee, 2000)

(Tan, 1998) explore the relationships between supplier management practices, customer relations practices and organizational performance; (Froehlich and Westbrook, 2011) investigate the effects of supplier–customer integration on organizational performance, (Tan, 2002) study SCM and supplier evaluation practices and relate the constructs to firm performance, (Min and Mentzer, 2004) develop an instrument to measure the supply chain orientation and SCM at conceptual levels. (Cigolini, 2004) develop a set of supply chain techniques and tools for examining SCM strategies.

METHODOLOGY

According to Kothari, (2004) a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. The research was a case study conducted in Nakumatt Holding. In this study, the researcher used mixed research method. Mixed method involved collection of both quantitative and qualitative data sequentially. This is because the researcher employed the questionnaires and both statistical and text data analysis. The mixing of the data occurred at several stages at the data collection, data analysis and interpretation. Mixing of the quantitative and qualitative research is connected between a data collection of the first phase of research and the data analysis of the second phase of research.

Data Analysis/Findings

In this study, a multiple regression analysis was conducted to test relationship among variables i.e. dependent and independent variables. The analysis was done to establish how the specific supply chain management practices affect competitive advantage at Nakumatt supermarket. A regression analysis results are presented in Model Summary table. The result as shown in the model summary indicates that information sharing, customer relationships, strategic supplier partnerships and postponement activities explained 70.4% of change in competitive advantage.

Table 4. 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215 ^a	.046	-.023	.37438

a. Predictors: (Constant), Information Sharing, Customer Relationships, Strategic Supplier Partnerships, Postponement Activities

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Competitive advantage) that is explained by all the four independent variables (Strategic supplier partnership, customer relationship, information sharing, and postponement of activities).

The F-ratio found in the ANOVA table measures the probability of chance departure from a straight line. The significance value is 0.00 which is less than 0.05 thus the model is statistically significant in predicting how Information Sharing, Customer Relationships, Strategic Supplier Partnerships, Postponement Activities affect competitive advantage. The F critical at 5% level of significance was 0.00. Since F calculated is greater than the F critical (value = 7.391), this shows that the overall model was significant

Table 4.2: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1809.028	5	361.806	3.231	0.000 ^b
	Residual	761.755	98	4.140		
	Total	2570.803	103			

a. Dependent Variable: Competitive Advantage

b. Predictors: (Constant), Information Sharing, Customer Relationships, Strategic Supplier Partnerships, Postponement Activities

The coefficients table sought to identify which predictors are significant contributors to the 70.4% of explained variance in Y (i.e., $R^2=.0704$) and which ones are not – and in what way(s) do the significant ones help us to explain Y.

Table 4.26: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.119	.710		-.168	.867
	Strategic Supplier Partnerships	.101	.016	.374	6.255	.000
	Customer Relationships	.170	.041	.211	4.141	.000
	Postponement Activities	-.020	.011	-.075	-1.849	.066
	Information Sharing	.066	.027	.009	.210	.834

a. Dependent Variable: Competitive Advantage

The established regression equation was

$$Y = -.0119 + 0.101\chi_{i1} + 0.170\chi_{i2} + 0.006\chi_{i3} + (-)0.020\chi_{i4} + \varepsilon$$

The regression equation above has established that holding all factors (Information Sharing, Customer Relationships, Strategic Supplier Partnerships, and Postponement Activities) constant, factors affecting competitive advantage will be -.119. The findings presented also shows that taking all other independent variables at zero, a unit increase in Strategic Supplier Partnerships will lead to a 0.101 increase in competitive advantage. As a result of low Postponement of supply

chain Activities will lead to a -.020 decrease in competitive advantage. On the other hand, a unit increase in information sharing will lead to a 0.006 increase in competitive advantage and a unit increase in customer relationship will lead to a 0.170 increase in competitive advantage in Nakumatt Supermarket. This infers that Customer relationship influences competitive advantage most followed by strategic supplier partnership, postponement and information sharing that has negative impact due to low application. The study also established a significant relationship between competitive advantage and the independent variables; customer relationship ($p = 0.00 < 0.05$), strategic supplier partnership ($p = 0.000 < 0.05$), postponement ($p = 0.066 > 0.05$) and information sharing ($p = .834 > 0.05$) as shown by the p values. This shows that only customer relationship and strategic supplier partnership are significant. The results indicate that there is a significant association between all the variables of strategic supplier partnership and competitive advantage (Phi greater than 0.5). Also, there is a significant association between all the measures of customer relationship and competitive advantage. Only relationship with information sharing and postponement is insignificant (Phi -.142 and -.032 respectively).

Discussion

The study findings established that customer relationship at Nakumatt supermarket can be described as good. The firm frequently interacts with customers to set reliability responsiveness and other standards. In addition, it frequently determines future customer expectations as well as measuring and evaluating customer satisfaction. Nakumatt supermarket facilitates customers' ability to seek assistance from them and periodically evaluate the importance of the firm's relationship with its customers. The study results revealed that business information was accessible and reliable to a great extent. Nakumatt trading partners were found to share proprietary information with the firm keep it fully informed about issues that affect their business. The study established that information exchange between Nakumatt trading partners and Nakumatt was reliable and the firm informs its trading partners in advance of changing needs. The information exchange between Nakumatt trading partners and the firm was also found to be adequate. The findings indicated that Nakumatt and its trading partners exchange information that helps establishment of business planning. The firm and its trading partners keep each other informed about events or changes that may affect the other partners. The study results have shown that Nakumatt trading partners share business knowledge of core business processes with the firm and information exchange between trading partners and Nakumatt was complete, accurate and timely.

Conclusion

This study made conclusions based on findings in regards to strategic supplier relationships, customer relationship, information sharing, and postponement of supply chain activities. The study revealed that Nakumatt supermarket has strategic supplier partnerships. The study findings established that customer relationship at Nakumatt supermarket could be described as good. The study results revealed that business information was accessible and reliable to a great extent. Nakumatt was found to practice postponement as a strategy to improve supply chain management. Despite all these supply chain practices being in place, only customer relationship and strategic supplier partnership were able to significantly affect Nakumatt supermarket's

competitive advantage. This could mean that the competitive advantage experienced by Nakumatt supermarket is derived from other functions in addition to supply chain management.

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