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RELATIONSHIP BETWEEN RISKS MONITORING & CONTROL MANAGEMENT STRATEGY AND SUPPLY CHAIN PERFORMANCE AMONG MANUFACTURING COMPANIES IN KENYA

DR. MBURU DAVID KIARIE, DR. PATRICK K. NGUGI AND DR. KENNEDY O. OGOLLAH

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RELATIONSHIP BETWEEN RISKS MONITORING & CONTROL MANAGEMENT STRATEGY AND SUPPLY CHAIN PERFORMANCE AMONG MANUFACTURING COMPANIES IN KENYA

[1*] Dr.Mburu David Kiarie
Doctorate student, Jomo Kenyatta University of Agriculture and Technology, Kenya
Corresponding email address: dmburu77@gmail.com

[2]Dr. Patrick K. Ngugi
Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

[3]Dr. Kennedy O. Ogollah
Lecturer, University of Nairobi, Kenya

Abstract

***Purpose*:** The purpose of this study was to determine the relationship between risks monitoring and control management strategy and supply chain performance among manufacturing companies in Kenya.

***Methodology*:**The study adopted a cross-section survey of descriptive nature .The target population comprised of the 412 manufacturing companies within Nairobi County that were registered members of KAM. The fisher *et al* formula for calculating the sample size was used to yield a sample size of199. Data was collected using questionnaires and analyzed using statistical package of social sciences (SPSS) version 21 as a tool of analysis.

Results: The study findings revealed that the constructs of risk identification management strategy combined together influenced supply chain performance as supported by a p value of 0.000.Further, most of the companies had risk analysis and evaluation management strategy in place.

***Policy recommendation*:**the study recommended that manufacturing companies should put in place a risk analysis and evaluation management strategy to enhance supply chain performance.

Keywords: *Monitoring & Control Management, performance, manufacturing companies*

1.1 INTRODUCTION

Today's market place is characterized by turbulence and uncertainty. Market turbulence has tended to increase in recent years for several reasons the supply chain. Demand in almost every industry sector seems to be more volatile. Product and technology life-cycles have shortened significantly and competitive product introduction make life cycle demand difficult to predict

(WB, 2012). Considerable 'chaos' exists in supply chains through the effect of such actions as sales promotion, quarterly sales incentives or decision rules such as quantities which results into continuous disruptions along the supply chain (Singhal& Hendricks, 2005).

Today, vulnerability of Supply chains to disturbances or disruptions has increased and has received considerable attention by practitioners as well as academics (Skipper & Hanna, 2009). It's not only the effect of external events such as natural disasters but also the impacts of changes in business strategy, the impact of one entity in the supply chain failing can as well lead to a number of entities closing down and in some instances the whole supply chain shuts down. The risk implications of the entwined global marketplace that characterize today's supply chains have also been evidenced vividly in the recent global financial crisis. Many companies have experienced a change in their supply chain risk profile as a result of changes in their supply chain profile and changes in their business models. The adoption of 'lean' practices, the move to outsourcing and a general tendency to reduce the size of the supplier base potentially increase supply chain vulnerability (Richard, 2008).

The level of decision making along supply chain in manufacturing companies, quality of service and the type of relationship with other organizations generally influences the level of outputs expected from the functional and tertiary groups (Cooper &Ellram, 2003). The diversity and complexity of organizations, growth, strategic conceptualization & pursuit of adaptive mechanisms coupled with adverse changes in technology, and the global competitiveness of different markets, is beyond the efforts of an organization alone but between the supply chains (Cox & Watson, 2001). Most literature reveal that supply chain performance in manufacturing companies is more appropriate as units of analysis than the entire organization management with the realization of the fact that those involved in the chain are in a position to lead in a number of possible directions (Miller & Ross, 2003).

Today's marketplace is shifting from individual company performance to supply chain performance: the entire chain's ability to meet end-customer needs through product availability and responsive, on-time delivery (Chen &Labadi, 2005). Supply chain performance crosses both functional lines and company boundaries. Functional groups (engineering/R&D, manufacturing, and sales/marketing) are all instrumental in designing, building, and selling products most efficiently for the supply chain, and traditional company boundaries are changing as companies discover new ways of working together to achieve the ultimate supply chain goal: the ability to fill customer orders faster and more efficiently than the competition (Abdullah & Abdel, 2004).The process of choosing appropriate supply chain performance measures is difficult due to the complexity of these systems in manufacturing companies. The performance of a supply chain in manufacturing companies is characterized by its ability to remain market-sensitive without losing the integration through the chain. One of the difficulties in designing and analyzing a supply chain in these companies is that its processes are governed by the strategic attributes of the supply chain (Lysons, 2006). In today's world, supply chain management (SCM) is a key strategic factor for increasing organizational effectiveness and for better realization of organizational goals such as enhanced competitiveness, better customer care and increased profitability (Bosman, 2006).
The globalization of markets and outsourcing has made many manufacturing companies select supply chain and logistics to manage their operations. Most of these companies realize that, in order to evolve an efficient and effective supply chain, SCM needs to be assessed for its

performance to reduce risk of disruptions (Van &Beulens, 2002). Supply chain management (SCM) has been a major component of competitive strategy to enhance organizational productivity and profitability as well as metric measure, however performance pertaining to Supply chain and risks pertaining to disruptions among manufacturing companies has not received adequate attention from researchers or practitioners today (Wegner & Bode, 2006).

1.2 Statement of the Problem

In the current global downturn, businesses are being hit by falling demand and unpredictable global supply costs which will expose these and other built in supply chain vulnerabilities. The key questions are, do business leaders understand these vulnerabilities and does their supply chain team have the capability to identify them and present the plans to mitigate them? In most cases the answer is no. In tough times businesses need to focus absolutely on profit, cash flow and eliminating unpredictable events from a declining demand profile (WB, 2012).Businesses processes today are endangered due to increased vulnerabilities as a result of risks along the process of enhancing performance in the organization (Suhong, Bhanu, Ragu & Rao, 2006). Several studies reveal that Supply chains collapses at an alarming rate due to continuous risk disruptions in developing nations in the world (Singhal& Hendricks, 2005). Past studies showed that most supply chains fail within first three years of business operations (Bosman, 2006). According to World Bank report (2013),companies with poor supply chain performance experienced 33-40%, lower stock of returns and approximately 70% to 80% of these companies' supply chains fail within 1-3 years (WB, 2013). It's also evident that share price volatility in the year after the supply chain performance drop goes to 13.5% higher compared with volatility in the year before the disruption (Hendricks &Singhal, 2005).

Poor Supply chain performance reduces company's revenue, cut into market share, inflate company's cost, increase budget and threaten production up to 60%, damage a company's credibility with investors and other stakeholders, thereby driving up its cost of capital; such firms experienced 7% lower sales, 11% higher costs and 14% increase in inventories (Ruud &Bosman, 2006).

According to a study by Sean and Kilcarr, (2013) on Third-Party Logistics, economic losses due to poor supply chain performance among manufacturing companies increased by 465% over the last three years climbing from $62 billion in 2009 to well over $350 billion in 2011.

A study by the Public Procurement Authority (PPOA) (2013) revealed that most of the tendered products/services are being brought with a mark-up of 60% on the market price hindering the supply chain performance due to high costs (Kirungu, 2012). This means that supply chains performance in Kenya is at a high risk of inadequate risk interference and influence. Further Howarth and Fredericks (2012) identifies that Small and Medium Enterprises (SMEs) manufacturers contributed to 70% of the Kenyan Gross Domestic Product (GDP) in 2011 whose operations are entirely depended on the performance of their supply chains, however increased non-performance of their supply chains due to risk interference, have resulted to a major stagnation in their profit margin reducing the GDP at an alarming rate.Statistics from Economic Survey (2014) show that Supply chain performance in manufacturing companies is a component of Kenya's overall GDP. In the last 31 years, it has been greatly fluctuating. In 1980, industry and manufacturing accounted for 21 percent of Kenya's overall GDP. In 1990, it decreased to 19 percent, and in 2000, the value added to GDP decreased again to 17 %. In

2011, there was a slight rise to 19% of Kenya's overall GDP (WB, 2013). This sudden change in GDP calls for immediate solution to the manufacturing companies' supply chains risk disruptions since Kenya's economy is market-based, and maintains a liberalized external trade system, hence the need for this study.

2.0 LITERATURE REVIEW

2.1 Theoretical review

2.1.1 Dynamic Risk Management Theory

The theory develops a continuous time, infinite horizon model of a firm which endogenously and dynamically adjusts its risk management contract which is a function of the firm's exogenous product price (frank, 2003). The model can be described by the following timeline: At time zero, the levered firm decides whether to initiate a risk management contract (guaranteeing a set of forward prices for a certain fraction of the firm's output), and chooses its maturity (Carter, 2004). At each subsequent time period, the firm produces one unit of product at a fixed cost and realizes cash flows that are determined by the current spot price and the price guaranteed by the risk management contract (if any) and whether or not the firm is in financial distress. The firm can default, in which case the debt holders recover part of the firm's value and the Equity-holders get nothing and are obligated to terminate (pay out or cash out) any outstanding risk management contracts, or, if not in default, the firm meets its periodic debt payments and pays production costs, and then makes a decision with respect to its risk management strategy; the firm can enter a risk management contract and choose its maturity; if the firm currently operates with a risk management contract in place, it can choose to terminate the contract early and to cash out (or to pay out) its current position at a fair market value. Both the initiation and the termination of the risk management contract generate transaction costs (Klapper, 2001).

The residual cash flow after debt payments and production costs is paid to the equity-holders as dividends. The firm is assumed to default on its debt optimally; when the market value of the firm's equity becomes zero. The firm's decisions with respect to the risk management strategy are made from the perspective of the shareholders who maximize the value of their equity stake. Both equity and debt are priced fairly taking into account the risk management strategy of the equity-holders. Because of a need to limit the dimensionality of the model, we are forced to make several modeling compromises. First, the model does not allow the firm to change the structure of its debt over time. Second, it assumes that the firm holds no cash, which implies that it pays all its residual cash flows as dividends (Stulz, 2002). The understanding of corporate risk management is based on static models that describe how various capital market imperfections give firms an incentive to reduce risk. While existing models provide rich intuition as to why firms should manage risk, they provide fewer predictions about how firms translate the incentives to manage risk into actual decisions on the choice of risk management instruments and how these strategies evolve over time (Zsidisin, 2004). Dynamic model of corporate risk management present and tests a continuous-time and infinite-horizon framework. It analyzes issues, which are difficult to address in static models, including the optimal timing to initiate risk management contracts and frequency of adjustment (Brown, 2001).

Many static models assume that firms make one-period decisions to hedge and that these decisions are irreversible and costless. Therefore one-period models also often implicitly assume that the employed risk management instruments have the same duration as the lifetime of the firm. Treating risk management choices as irreversible limits the ability of the static models to recognize the value of dynamic risk management in adapting to changes in market conditions and firm characteristics. The fact that most risk management instruments have shorter maturities than the duration of the firm's operations has important implications for the timing and sequence of risk management decisions and it provides an intuition for the limited effect of risk management on firm exposure (Brown &Klapper, 2001). This theory explicitly explains the application and relevance of hedging against risk management strategy in this research.

3.0 METHODOLOGY

The study adopted a cross-section survey of descriptive nature .The target population comprised of the 412 manufacturing companies within Nairobi County that were registered members of KAM. The fisher *et al* formula for calculating the sample size was used to yield a sample size of199. Data was collected using questionnaires and analyzed using statistical package of social sciences (SPSS) version 21 as a tool of analysis.

4.0 RESULTS FINDINGS

4.1Risks Monitoring & Control Management Strategy

4.1.1 Relationship between Risk Control and Monitoring Management Strategy and Better Quality

Results in Table 1 show the results of the odd ratio regression with regard to quality. The result reveals that having written down contract with suppliers had a positive and significant relationship with quality. The odds of observing better quality were 8.274 times higher for those having written down contract with suppliers. This implies that the practice of having written down contract with suppliers result to better quality.

Table 1: Odd Ratio Regression for Risk Control and Monitoring (Quality)

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)
Pre-shipment inspection of suppliers	1.32	0.683	3.73	1	0.053	3.742
Insurance policy of suppliers	0.914	0.602	2.304	1	0.129	2.493
Contract with suppliers	2.113	0.537	15.462	1	0.000	8.274
Constant	-2.255	0.761	8.775	1	0.003	0.105

4.1.2Relationship between Risk Control and Monitoring Management Strategy and Better Cost

Results in Table 2 show the results of the odd ratio regression with regard to cost. The result reveals that pre-shipment inspection of suppliers had a positive and significant relationship with better cost. The odds of observing better cost were 0.158 times higher for those practicing

pre-shipment inspection of suppliers. This implies that the practice of having pre-shipment inspection of suppliers result to better cost.

The results also reveal that having insurance policy of suppliers had a positive and significant relationship with better cost. The odds of observing better cost were 5.638 times higher for those having insurance policy of suppliers. This implies that the practice of having insurance policy of suppliers result to better cost. The result reveals that having written down contract with suppliers had a positive and significant relationship with better cost. The odds of observing better cost were 24.236 times higher for those having written down contract with suppliers. This implies that the practice of having written down contract with suppliers result to better cost.

Table 2: Odd Ratio Regression for Risk Control and Monitoring (Cost)

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)
Pre-shipment inspection of suppliers	1.847	0.817	5.109	1	0.024	0.158
Insurance policy of suppliers	1.730	0.575	9.032	1	0.003	5.638
Contract with suppliers	3.188	0.656	23.614	1	0.000	24.236
Constant	-1.026	0.668	2.355	1	0.125	0.358

These findings are in line with Hood and Young (2005) who maintain that many organizations may have gone out of business because of their failure to adopt effective risk management strategies and organizations therefore are seeing the value of adopting a risk-based approach to execute strategies in order to survive in a post-recession world. Further according toVan and Beulens, (2002), in this era of both globalization of markets and outsourcing, many manufacturing companies select supply chain and logistics to manage their operations. Most of these companies realize that, in order to evolve an efficient and effective supply chain, all supplies needs to be assessed for its performance to reduce risk of disruptions.

4.2 Hypothesis Testing

The hypothesis was tested by running an ordinary least square regression model. The acceptance/rejection criteria was that, if the p value is greater than 0.05, the Ho is not rejected but if it's less than 0.05, the Ho fails to be accepted. The null hypothesis for this objective was: Risk control and monitoring management strategy has no significant effect on supply chain performance among manufacturing companies in Kenya. The alternative hypothesis for this objective was: Risk control and monitoring management strategy has significant effect on supply chain performance among manufacturing companies in Kenya.

Table 3: Risk control and monitoring management strategy model ANOVA

ANOVA						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	5.948	1	5.948	49.952	.000b
	Residual	14.051	118	0.119		
	Total	19.999	119			

a Dependent Variable: Supply chain Performance
b Predictors: (Constant), Risk control and monitoring management strategy

Table 4: Risk control and monitoring management strategy model summary

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.545a	0.297	0.291	0.345074

a Predictors: (Constant), Risk control and monitoring management strategy

Table 5: Risk control and monitoring management strategy model coefficients

Coefficients						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	0.09	0.095		0.949	0.345
	Risk control and monitoring management strategy	0.784	0.111	0.545	7.068	0.000

a Dependent Variable: Supply chain performance

The F statistic for the model was significant at 5% level of significance implying that the model fit well. The regression results reveal that risk control and monitoring management strategy explain 29.7% of the changes in supply chain performance.

The relationship between risk control and monitoring management strategy and supply chain performance was significant at 5% level of significance. The p-value was 0.000 which indicated that the null hypothesis was not accepted at 5% level of significance hence risk control and monitoring management strategy has significant effect on supply chain performance among manufacturing companies in Kenya.

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4.3Hedging Against Risk Management Strategy

4.3.1Buffer Stock

The respondents were asked whether their company increase buffer stock at various levels in the supply chain. Result in Figure 1 show that a majority of the respondents (80%) indicated that their company increase buffer stock at various levels in the supply chain.

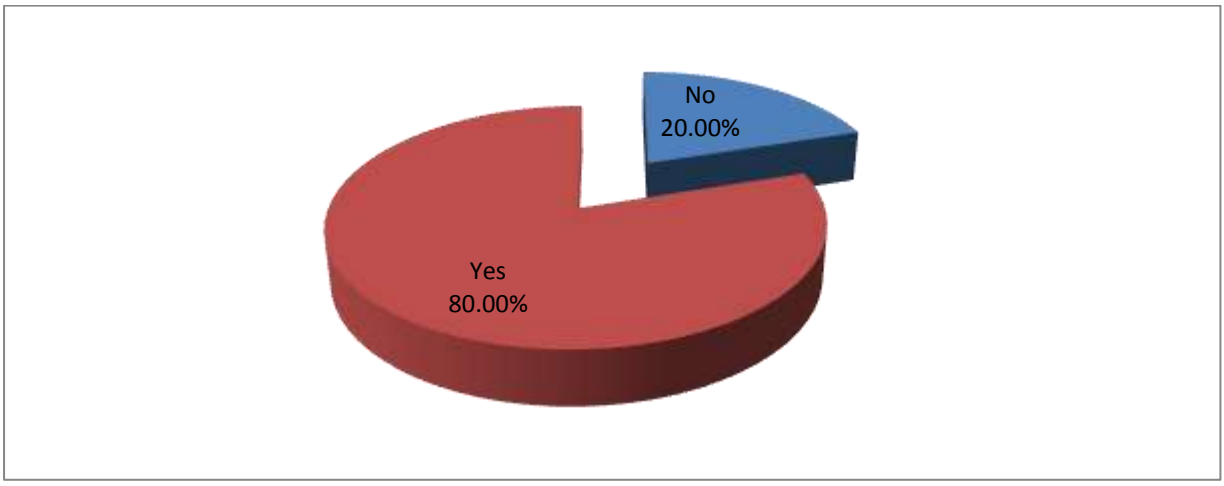

Figure 1: Buffer Stock

Results in Table 6 show that majority of the respondents (53.1%) indicated that increased buffer stock at various levels in the supply chainhas decreased lead time by more than 10%while 46.9% of the respondents indicated that increased buffer stock at various levels in the supply chainhas decreased lead time by a range of 6-10%. Results in Table 6 also shows that majority of the respondents (58.3%) indicated that increased buffer stock at various levels in the supply chainhas improved quality by more than 10% while 41.7% of the respondents indicated that increased buffer stock at various levels in the supply chainhas improved quality by a range of 6-10%. Further, results in Table 6 also shows that majority of the respondents (54.2%) indicated that increased buffer stock at various levels in the supply chainhas reduced cost by more than 10% while 45.8% of the respondents indicated that increased buffer stock at various levels in the supply chainhas reduced cost by a range of 6-10%.

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Table 6: Buffer Stock (YES)

Statement	Indicator	Percentage
Buffer stock and lead time supply chain performance	Decreased lead time by 0-5%	0.00%
	Decreased lead time by 6-10%	53.10%
	Decreased lead time by more than 10%	46.90%
	Total	100.00%
Buffer stock and quality of supply chain performance	Improved quality by 0-5%	0.00%
	Improved quality by 6-10%	41.70%
	Improved quality by more than 10%	58.30%
	Total	100.00%
Buffer stock and cost of supply chain performance	Reduced cost by 0-5%	0.00%
	Reduced cost 6-10%	45.80%
	Reduced cost by more than 10%	54.20%
	Total	100.00%

Results in Table 7 show that a majority of the respondents (58.3%) indicated that increased buffer stock at various levels in the supply chain has increased lead time by a range of 6-10% while 41.7% of the respondents indicated that increased buffer stock at various levels in the supply chain has increased lead time by more than 10%. Results in Table 7 also shows that 50% of the respondents indicated that increased buffer stock at various levels in the supply chain has decreased quality by a range of 6-10% while 50% of the respondents indicated that increased buffer stock at various levels in the supply chain has decreased quality by more than 10%. Further, results in Table 7 also shows that majority of the respondents (54.2%) indicated that increased buffer stock at various levels in the supply chainhas increased cost by more than 10% while 45.8% of the respondents indicated that increased buffer stock at various levels in the supply chain has increased cost by a range of 6-10%.

Table 7: Buffer Stock (NO)

Statement	Indicator	Percentage
Failure to increase buffer stock and lead time supply chain performance	Increased lead time by 0% - 5%	0.00%
	Increased lead time by 6- 10%	58.30%
	Increased lead time by Over 10%	41.70%
	Total	100.00%
Failure to increase buffer stock and quality of supply chain performance	Decreased quality by 0% - 5%	0.00%
	Decreased quality by 6- 10%	50.00%
	Decreased quality by Over 10%	50.00%
	Total	100.00%
Failure to increase buffer stock and cost of supply chain performance	Increased cost by 0% - 5%	0.00%
	Increased cost by 6- 10%	45.80%
	Increased cost by Over 10%	54.20%
	Total	100.00%

4.3.2Order Cycle Times

The respondents were asked whether their company have a strategy that reduces order cycle times. Result in Figure 2 show that a majority of the respondents (83.33%) indicated that their company have a strategy that reduces order cycle times.

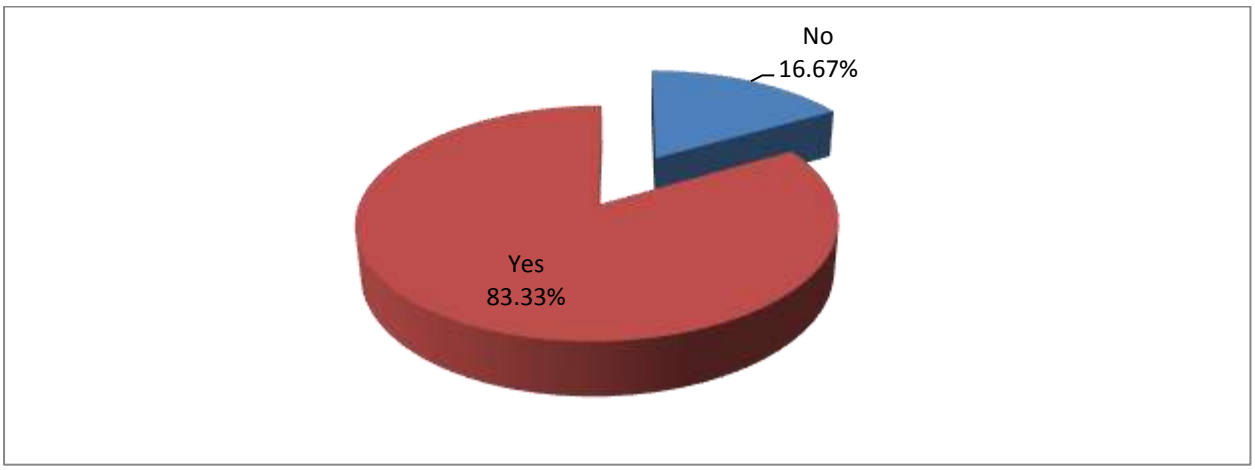

Figure 2: Order Cycle Times

Results in Table 8 show that majority of the respondents (55.4%) indicated that having a strategy that reduces order cycle times has decreased lead time by more than 10% while 44.6% of the respondents indicated that having a strategy that reduces order cycle timeshas decreased lead time by a range of 6-10%. Results in Table 8 also shows that majority of the respondents (52.5%) indicated that having a strategy that reduces order cycle timeshas improved quality by more than 10%while 47.5% of the respondents indicated that having a strategy that reduces order cycle times has improved quality by a range of 6-10%. Further, Results in Table 8 also shows that majority of the respondents (53.5%) indicated that having a strategy that reduces order cycle timeshas reduced cost by more than 10% while 46.5% of the respondents indicated that having a strategy that reduces order cycle timeshas reduced cost by a range of 6-10%.

Table 8: Order Cycle Times (YES)

Statement	Indicator	Percentage
Order cycle times and lead time supply chain performance	Decreased lead time by 0-5%	0.00%
	Decreased lead time by 6-10%	44.60%
	Decreased lead time by more than 10%	55.40%
	Total	100.00%
Order cycle times and quality of supply chain performance	Improved quality by 0-5%	0.00%
	Improved quality by 6-10%	52.50%
	Improved quality by more than 10%	47.50%
	Total	100.00%
Order cycle times and cost of supply chain performance	Reduced cost by 0-5%	0.00%
	Reduced cost 6-10%	46.50%

	Reduced cost by more than 10%	53.50%
	Total	100.00%

Results in Table 9 show that majority of the respondents (58.3%) indicated that having a strategy that reduces order cycle times has increased lead time by a range of 6-10% while 41.7% of the respondents indicated that having a strategy that reduces order cycle times has increased lead time by more than 10%. Results in Table 9 also shows that 50% of the respondents indicated that having a strategy that reduces order cycle timeshas decreased quality by a range of 6-10% while 50% of the respondents indicated that having a strategy that reduces order cycle times has decreased quality by more than 10%. Further, Results in Table 9 also shows that majority of the respondents (54.2%) indicated that having a strategy that reduces order cycle times has increased cost by more than 10%while 45.8% of the respondents indicated that having a strategy that reduces order cycle timeshas increased cost by a range of 6-10%.The results agrees with that of Rutherford, (2010) that increase in buffer stock in company help reduce risks along supply chain by reducing risk of stock, allows flexibility in case of unexpected delay in the supply chain.Company share supply chain costs with partners on cost involved dependent on type contract.

Table 9: Order Cycle Times (NO)

Statement	Indicator	Percentage
Lack of order times and lead time supply chain performance	Increased lead time by 0% - 5%	0.00%
	Increased lead time by 6- 10%	58.30%
	Increased lead time by Over 10%	41.70%
	Total	100.00%
Lack of order times and quality supply chain performance	Decreased quality by 0% - 5%	0.00%
	Decreased quality by 6- 10%	50.00%
	Decreased quality by Over 10%	50.00%
	Total	100.00%
Lack of order times and cost supply chain performance	Increased cost by 0% - 5%	0.00%
	Increased cost by 6- 10%	45.80%
	Increased cost by Over 10%	54.20%
	Total	100.00%

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4.3.3 Sharing Supply Chain Cost with Partners

The respondents were asked whether their company share supply chain costs with partners. Result in Figure 3 show that a majority of the respondents (80.83%) indicated that their company share supply chain costs with partners.

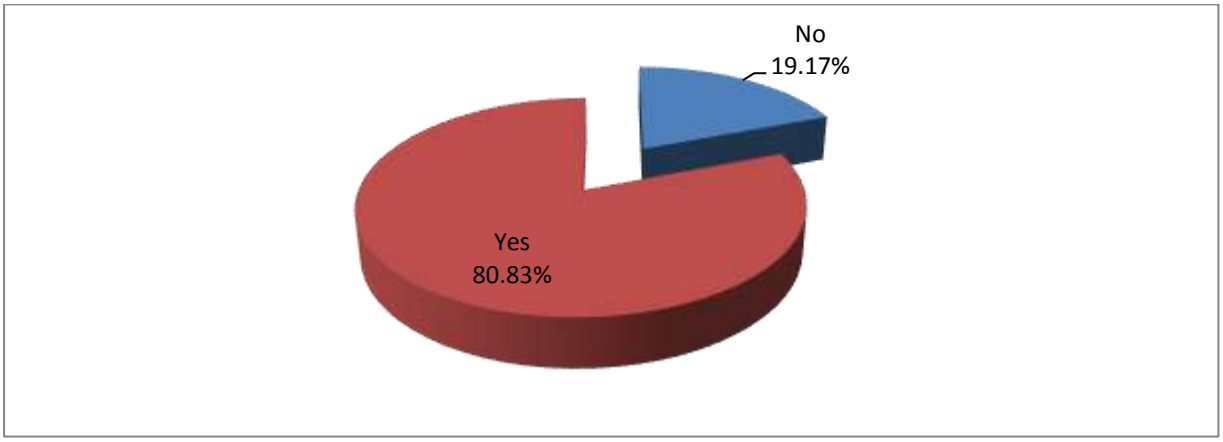

Figure 3: Sharing Supply Chain with Partners

Table 10: Sharing Supply Chain with Partners (YES)

Statement	Indicator	Percentage
Sharing supply chain costs with partners and lead time supply chain performance	Decreased lead time by 0-5%	0.00%
	Decreased lead time by 6-10%	50.00%
	Decreased lead time by more than 10%	50.00%
	Total	**100.00%**
Sharing supply chain costs with partners and quality supply chain performance	Improved quality by 0-5%	0.00%
	Improved quality by 6-10%	43.60%
	Improved quality by more than 10%	56.40%
	Total	**100.00%**
Sharing supply chain costs with partners and cost supply chain performance	Reduced cost by 0-5%	0.00%
	Reduced cost 6-10%	44.70%

Statement	Indicator	Percentage
	Reduced cost by more than 10%	55.30%
	Total	**100.00%**

Results in Table 10 show that 50% of the respondents indicated that sharing supply chain costs with partners has decreased lead time by a range of 6-10% while 50% of the respondents indicated that sharing supply chain costs with partners has decreased lead time by more than 10%. Results in table 10 also shows that majority of the respondents (56.4%) indicated that sharing supply chain costs with partners has improved quality by more than 10% while 43.6% of the respondents indicated that sharing supply chain costs with partners has improved quality by a range of 6-10%. Further, Results in Table 10 also shows that majority of the respondents (55.3%) indicated that sharing supply chain costs with partners has reduced cost by more than 10% while 44.7% of the respondents indicated that sharing supply chain costs with partners has reduced cost by a range of 6-10%.

Table 11: Sharing Supply Chain with Partners (NO)

Statement	Indicator	Percentage
Sharing supply chain costs with partners and lead time supply chain performance	Increased lead time by 0% - 5%	0.00%
	Increased lead time by 6- 10%	26.90%
	Increased lead time by Over 10%	73.10%
	Total	100.00%
Sharing supply chain costs with partners and quality supply chain performance	Decreased quality by 0% - 5%	0.00%
	Decreased quality by 6- 10%	53.80%
	Decreased quality by Over 10%	46.20%
	Total	100.00%
Sharing supply chain costs with partners and cost supply chain performance	Increased cost by 0% - 5%	0.00%
	Increased cost by 6- 10%	42.30%
	Increased cost by Over 10%	57.70%
	Total	100.00%

Results in Table 11 show that majority of the respondents (73.1%) indicated that sharing supply chain costs with partners has increased lead time by more than 10% while 26.9% of the respondents indicated that sharing supply chain costs with partners has increased lead time by a range of 6-10%. Results in Table 11 also shows that majority of the respondents (53.8%) indicated that sharing supply chain costs with partners has decreased quality by a range of 6-

10% while 46.2% of the respondents indicated that sharing supply chain costs with partners has decreased quality by more than 10%. Further, results in Table 11 also shows that majority of the respondents (57.7%) indicated that sharing supply chain costs with partners has increased cost by more than 10% while 42.3% of the respondents indicated that sharing supply chain costs with partners has increased cost by a range of 6-10%.

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1Summary of Finding

The objective of the study was to explore the effect of risk monitoring and control management strategy on supply chain performance among manufacturing companies in Kenya. Result showed that most of the companies that conducted pre-shipment inspection of suppliers. Pre-shipment inspection of suppliersresulted to decreased lead time, improved quality and reduced cost. Results also showed that most of the companies had insurance policy of suppliers. The bivariate regression results indicated that the odds of improved lead time were higher for those companies having insurance policy of suppliers and contract with suppliers. The regression results indicated that the odds of improved quality were higher for those companies having contract with suppliers. These results also indicated that the odds of better cost were higher for those companies conducting pre-shipment inspection of suppliers, having insurance policy of suppliers and havingcontract with suppliers. The multivariate regression results indicated that the odds of observing improved cost were higher for those companies that had a risk control and monitoring management strategy in place. This indicated that the odds of better supply chain performance were higher for companies that had arisk control and monitoring management strategy influence.

5.2 Conclusion

According to the study most of the companies had risk monitoring and control management strategy in place since most of the companies conducted pre-shipment inspection of suppliers, had insurance policy of suppliers and contract with suppliers. The study concluded that the odds of observing better lead time was higher for those companies that had insurance policy of suppliers and had contract with suppliers. The odds of improved quality were higher for those companies that hadcontracts with suppliers. The odds of observing better cost were higher for companies that conducted pre-shipment inspection of suppliers, had insurance policy of suppliers and had contract with suppliers. This implies that having a risk monitoring and control management strategy in place influence supply chain performance in manufacturing companies in Kenya.

5.3 Recommendations of the Study

The study also recommended that manufacturing companies should put in place risk control and monitoring management strategies. In particular, the companies should consider conducting of pre-shipment inspection of suppliers, having an insurance policy of suppliers and also have contract with suppliers. This would assist to boost supply chain performance.

5.4 Suggested Areas for Further Study

Further studies can be done on the effect of risk management strategies that influence the supply chain performance of service delivery companies. In addition further studies are

recommended in the area of competitive strategies and strategic responses adopted by manufacturing companies in order to improve supply chain performance.

In addition, further studies may investigate the influence of demographic factors on the risk management strategies of manufacturing companies. For instance, are manufacturing companies with a high male gender composition more likely to put in place effective risk identification, risk analysis and evaluation, risk monitoring and control and hedging against risk management strategies? What is the potential effect of the type of company on risk management strategies? What is the potential effect of the age of company on risk management strategies? What is the impact of gender composition, experience, age of manufacturing companies' employees on supply chain performance? Studies may be carried out to find answers to these questions.

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