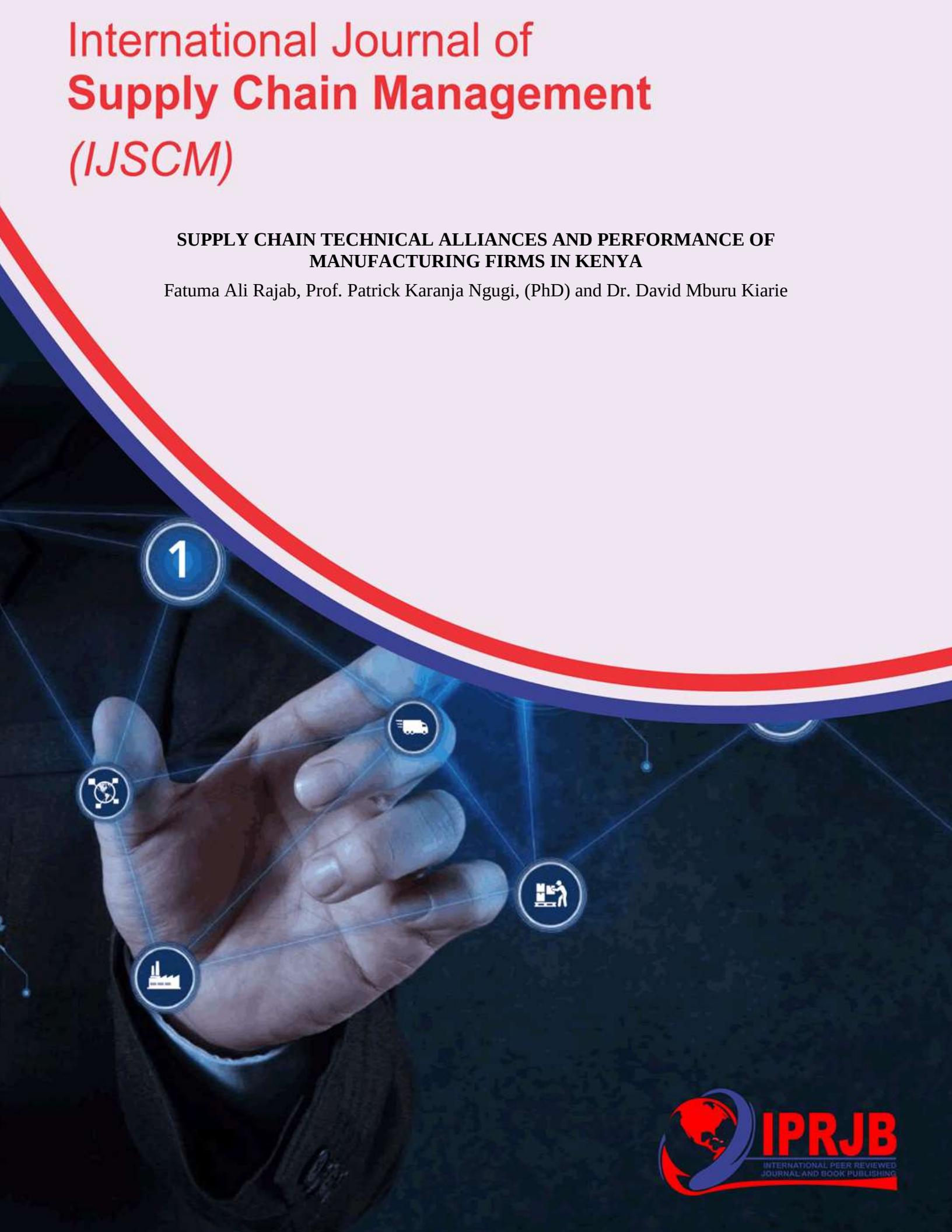
International Journal of
Supply Chain Management
(IJSCM)

SUPPLY CHAIN TECHNICAL ALLIANCES AND PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

Fatuma Ali Rajab, Prof. Patrick Karanja Ngugi, (PhD) and Dr. David Mburu Kiarie



IPRJB
INTERNATIONAL PEER REVIEWED JOURNAL AND BOOK PUBLISHING

International Journal of Supply Chain Management
ISSN 2518-4709 (Online)
Vol.8, Issue 1, No.2, pp 77 - 88, 2023

www.iprjb.org

Supply Chain Technical Alliances and Performance of Manufacturing Firms in Kenya

[1*] Fatuma Ali Rajab

Ph.D. Candidate, School of Business and Entrepreneurship, Jomo Kenyatta University of Agriculture and Technology, Kenya.

*Corresponding Author's Email: alifatuma6@gmail.com

[2]Prof. Patrick Karanja Ngugi, (PhD)

School of Business and Entrepreneurship, Jomo Kenyatta University Agriculture and Technology, Kenya

[3]Dr. David Mburu Kiarie

School of Business Management and Economics, Dedan Kimathi University of Technology, Kenya

Article History

Received 19th January 2023
Received in Revised Form 10th February 2023
Accepted 20th February 2023

Abstract

Purpose: The purpose of this study was to examine the effect of supply chain technical alliances on performance of manufacturing firms in Kenya

Methodology: The correlational research design was used in carrying out the study. The study used Fisher's formula to sample 234 manufacturing firms from the total population of 596 registered in Kenya Association of Manufacturers directory. The respondents of the study included managers in all 234 selected manufacturing firms. This research utilized a structured questionnaire to collect data. The study used SPSS version 25.0 to code, process and to carry out descriptive and inferential analysis. The analysed data was displayed using tables, graphs, and bar charts.

Results: Supply chain technical alliances has positive and significant relationship with performance of manufacturing firms in Kenya at $p<0.05$. This implies that upholding and enhancing supply chain technical alliances activities leads to improvements in performance of manufacturing firms in Kenya. The regression model established that the R value was 0.651 while the R^2 was 0.423 which indicated that the variability of the supply chain technical alliances on the performance of manufacturing firms in Kenya could be explained by up to 63.1% of the model and the P-value was $0.000<0.05$. This implies that the model was fit to determine the relationship between supply chain technical alliances and performance of manufacturing firms in Kenya and therein make conclusions and recommendations.

Unique Contribution to Theory, Practice and Policy: While the existing Social exchange theory of supply chain technical alliances used in this study was validated, the study recommends that managers in each manufacturing firm need to consider having supply chain technical alliances strategies in place as it leads to high organizational performance. The firms should ensure they collaborate with other firms on technical skills, sharing technology and acquired knowledge. The study recommended that manufacturing firms policy makers need to establish a policy framework to expedite effective strategies for supply chain technical alliances adoption to facilitate performance of their business operations.

Keywords: *Supply Chain Technical Alliances, Technical Skills, Technology Sharing, Knowledge Sharing, Organizational Performance, Manufacturing Firms*

International Journal of Supply Chain Management
ISSN 2518-4709 (Online)
Vol.8, Issue 1, No.2, pp 77 - 88, 2023

www.iprjb.org

INTRODUCTION

Supply chain strategic alliances, which involves bringing on board the suppliers to collaborate and ensure mutual benefit, upholds the need for technical alliances (Amit & Schoemaker, 2019). Manufacturing companies require technical competencies and skills that are essential in the daily operations of the firms. Through the extensive operations in the manufacturing sector, technicalities are often the main determinants of the success of the companies. This is whereby the suppliers and the manufacturing companies collaborate to bridge any technical gaps. According to Barraza (2017), supply chain technical alliances generates a learning process that, in accelerating invention and innovation creates dynamic economics. Through technical alliances, firms enhance their absorptive capacity. A firm's absorptive capacity is the firm's ability to acquire and value external knowledge (Döckel & Ligthelm, 2015).

Absorptive capacity can further be said to be a set of organizational practices and procedures, by which firms acquire, assimilate, transform and exploit external knowledge that is, when firms partner with other firms to acquire the requisite skills needed in an industry (Kariithi, 2017). Consequently, according to Kessio (2017), a firm's technical alliances may influence it capabilities as well as other's opinion of its capabilities. This is what manufacturing firms would require meeting the market needs and ensuring that they have the adequate technology for continued growth and performance. According to Kihara (2016), for entities to benefit from supply chain technical alliances, they ought to extensively collaborate with the suppliers such that they are able to manage the knowledge acquired from the suppliers while still managing their own internal knowledge to equip the employees with the newly acquired knowledge for efficiency and effectiveness.

The manufacturing companies benefit from their collaboration with suppliers through acquisition of the much required technical skills. The suppliers are at time with more advanced technical skills due to long period of experience or specification in a given area (Wambugu, 2014). Collaborating with such suppliers ensures that the manufacturing firms learn and acquire the technical skills, thus stirring their operations into success. According to Thrulogachantar and Zailani (2016), technical alliances also ensures that the sharing of technology with the suppliers is enhanced, and this puts the manufacturing companies in a better state to compete and excel in the market. The advances in technology keeps on changing, thus through collaboration the manufacturing firms expand their knowledge-base, and this could be best achieved through the suppliers.

Problem Statement

Across the World, the manufacturing sector has played an important role in driving economic development by stimulating and sustaining high productive growth, boosting employment opportunities for semi-skilled labor and building country competitiveness through exports (Munyi & Deya, 2019). According to Muturi & Maroa (2020), manufacturing sector contributes highly to the Kenyan economy and employs about 2million people, which represents about 13% of total employment in Kenya. The sector is expected to play a key part in the advancement of the Kenyan economy by contributing 20 percent of Gross Domestic Product (GDP). Studies have confirmed that firms which possess supply chain technical alliances portfolios tend to be more innovative and

generate better performance (Liu & Atuahene-Gima, 2018). Statistics show that manufacturing firms have continued to have low profits or never changing profits over long periods due to unforeseeable business environments (Kimeto, 2018). This raises a question on whether supply chain technical alliances could be one of the missing factors leading to the continued decline in performance of manufacturing firms in Kenya. The existing evidence in other contexts shows that supply chain technical alliances is a significant aspect that positively and significantly influences performance. Bengtsson and Kock (2019), contend that supply chain technical alliances play an important role in enhancing the effectiveness of the processes and ability of organizations to meet the customer needs. This is however yet to be proved in a Kenyan context, and particular among the manufacturing firms. Therefore, the objective of this study was to examine the effect of supply chain technical alliances on performance of manufacturing firms in Kenya

Objective of the Study

To examine the effect of supply chain technical alliances on performance of manufacturing firms in Kenya

Research Hypothesis

H_o: There is no significant effect of supply chain technical alliances on performance of manufacturing firms in Kenya

LITERATURE REVIEW

The Social Exchange Theory

Social exchange theory is used to reproduce the results of procedural and distributive justice in supply chain relationships. This study used Social Exchange Theory to determine the influence of supply chain technical alliances on the performance of manufacturing firms in Kenya. Social exchange theory is based on the concept of individuals or groups interacting due to the expectation of rewards and the avoidance of penalties or punishment (Awino, 2016). Increased competition has focused attention on the development of policies to build effective on-going relationships with customers and managing those alliances (Nyamao, 2016). A basic tenet of supply chain management is that on-going relationships among supply chain members and especially with customer's increases efficiency and effectiveness (Kiveu, Namusonge & Muathe, 2019).

The advantage of taking a social exchange perspective is due to the fact that supply chain technical alliances has a strong impact on supply chain processes, alliances and firm performance (Okello & Kanyora, 2015). Social Exchange Theory is composed of a series of propositions outlining the system of social exchange. A fundamental proposition of this theory is that for all actions taken, if an action is rewarded, more likely a member to an exchange is to perform that action again (Roya, 2017). Social exchange theory argues that individuals or groups adepts to form contact with others for the expectation of a reward (Soita, 2015). Based on the social exchange theory a business network may be seen as a type of exchange network (Amit & Schoemaker, 2019), and can be defined as a set of interconnected exchange relationships.

Döckel and Ligthelm (2015), analysed the effect of strategic alliances in logistics companies in Vietnam, and through a correlation research approach, the study established that one of the key fundamentals of strategic alliances is technical alliances, where companies collaborate to enhance their competences and technical skills. According to the authors, through extensive collaboration with the suppliers and the clients, the logistics companies were able to gain more expertise in other fields, thus strengthening their business and their ability to meet the customer needs. This is supported by Liu and Atuahene-Gima (2018), who argue that technical alliances in logistics and supply chain enable both firms to gain extra knowledge on the other side of business, thus they are able to establish ways to meet the customer expectations and promote efficiency in the entire supply chain process.

A similar study by Roya (2017), sought to assess the role of technical alliances among the manufacturing firms in Malaysia. Through an empirical review approach, the study revealed that most of the companies that had succeeded in gaining competitiveness and stirring the customer satisfaction were those that had strong ties with their suppliers to the extent to sharing technologies and other technical knowledge. The authors indicated that strong technical collaboration implied that both the manufacturers and the suppliers were committed to meet a common goal, which is to have satisfied customers and continued business. Viewing things in this perspective, Roya, (2017) argues that production companies tend to share their knowledge with the suppliers, who on the other hand share theirs for common purpose, and this ensures more success in the business. Liu and Atuahene-Gima, (2018), agree with this by indicating that the supply chain process in the modern business market requires extensive collaboration and alliances such that even technical knowledge and skills are shared between the company and the suppliers.

Conceptual Framework

The aim of using the conceptual framework was to offer a clear image of the association between dependent and independent variables. it illustrates how dependent and independent variables are related. Supply chain technical alliances was the independent variable while performance of manufacturing firms was the dependent variable.

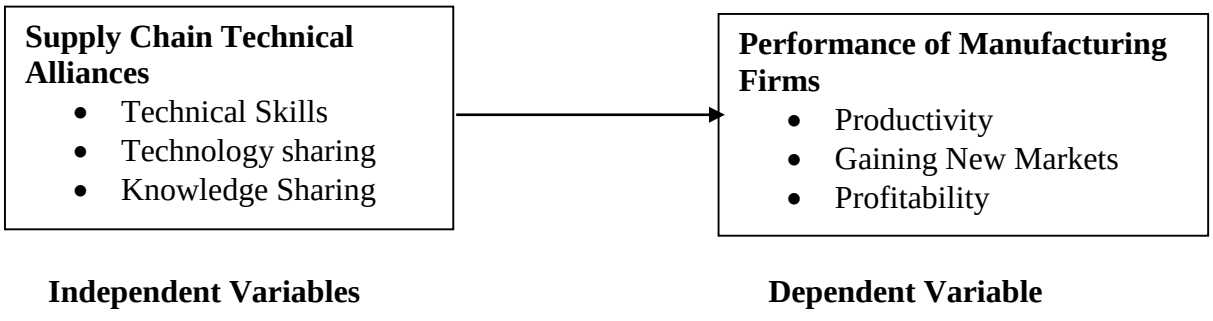


Figure 1: Conceptual Framework

Research Gaps

It is apparent that effect of supply chain technical alliances on performance of manufacturing firms is analytically significant since productivity, quality improvement, gaining new markets, revenue growth, return on investment, customer satisfaction and profitability is paramount in any manufacturing firm worldwide (Munyi & Deya, 2019). Despite the role of supply chain technical alliances in manufacturing sector, the number of researches that have explored the effect of supply chain technical alliances on performance is still insignificant (Nyamao, 2016). From the examination of the written and published literature on supply chain technical alliances and performance of manufacturing firms, the research recognizes that there is a call for a study to be carried out in this field in Kenya. Literature obtainable signify that, studies available are mostly done on developed countries and not focusing more developing states such as in Africa (Muturi & Maroa, 2020). Available empirical studies indicate that very little had been documented about the effect of supply chain technical alliances on performance of manufacturing firms in Kenya regionally (Wambugu, 2014). This calls for research so as to provide direction and insight and fill the literature gap in supply chain strategic alliances and their effect on organizational performance, whether real or simply perceived. This will provide guidance on what form and degree of alliances to make (Sasaka, Namusonge & Sakwa, 2014).

Awino, (2016), investigated measurement for strategic alliances and organizational performance of manufacturing firms. The strategic alliances practice they adopted included supplier integration, customer integration and collaborative forecasting. The study concluded that strategic alliances have a positive impact on organizational performance. However, this study was conducted in Malaysia manufacturing firms and not the Kenyan manufacturing firms. Baraza (2017), investigated impact of strategic alliances on value co-creation and firm performance: a healthcare service sector perspective. The study adopted five components in relation to supply chain alliances; incentive alignment, information access, collaborative communication orientation and goal congruence. This study did not discuss all supply chain alliances practices. This research was done on the healthcare sector. A similar study need be done in Kenya and especially on the manufacturing sector.

METHODOLOGY

The study used correlational research design. Correlational design is a research design that aims to describe variables or explore the association between variables in one or more populations (Wang, 2015). The target population of the study included 596 manufacturing firms registered members as per the KAM directory. The firms were stratified according to categories (sub sectors) which are 14. Simple random sampling was then employed to identify the firms to be studied. The study used Fisher's formula to sample 234 manufacturing firms from the total population. This research utilized a structured questionnaire to collect data. The questionnaire was divided into five sections, each focused on a single research objective. Drop and pick as well as online method was applied to administer the research questionnaire to the respondents. The study used quantitative data which prior to analysis, was sorted to ensure completeness. Quantitative data involved descriptive and inferential statistics. Descriptive statistics analysis was conducted to provide an

overview of the sample through demographic details of the participating respondents including measure of central tendencies, standard deviation, range, variance among others. Inferential statistics facilitate inferences and involved both correlation and regression analysis to show the relationship between the dependent variable and the independent variables. The analysed findings were then presented in form of frequency tables, pie charts and bar charts.

RESULTS AND DISCUSSIONS

Descriptive Analysis of Supply Chain Technical Alliances

The respondents were asked to indicate their level of agreement with specific statements on supply chain technical alliances on their performance based on a 5-points Likert's scale as 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree. The conclusions on the Likert responses were made by combining 1 and 2 to imply disagreement, 3 to imply neutral decision and 4 and 5 to imply agreement. The results were analyzed and displayed in table 4.9. From table 4.9, 63% respondents rated technical skills is very crucial in increasing productivity (mean=3.59≈4, SD=1.30). Technology sharing is very key in improving productivity where 82% of the respondents agreed (mean=4.16≈4, SD=0.78). Likewise, 76% of the respondents agreed that knowledge sharing play a significant role in improving productivity (mean=3.93≈4, SD=1.15).

The findings also indicate that 80% of the respondents agreed that technical skills are very paramount in gaining new markets (mean=3.96≈4, SD=1.207). The findings indicate that 82% of the respondents agreed that technology sharing is very crucial in gaining new markets (mean=3.93≈4, SD=1.153). The findings indicate that 75% of the respondents agreed that knowledge sharing are very crucial in gaining new markets (mean=3.96≈4, SD=1.21). The findings indicate that 77% of the respondents agreed that technical skills are very crucial in improving profitability (mean=4.02≈4, SD=1.20). The findings indicate that 64% of the respondents agreed that technology sharing is important in improving profitability (mean=3.863≈4, SD=1.35). The findings indicate that 62% of the respondents agreed that knowledge sharing are very crucial in improving profitability (mean=3.79≈4, SD=1.35). In conclusion, the average mean of the responses was 3.97 when viewed on a scale of five points presenting a standard deviation of 1.17. This means that the majority of the respondents agreed that supply chain technical alliances implementation leads to an improvement in the performance of the manufacturing firms in Kenya.

This is in line with Wambugu (2014), who found that for entities to benefit from supply chain technical alliances, they ought to extensively collaborate with the suppliers such that they are able to manage the knowledge acquired from the suppliers while still managing their own internal knowledge to equip the employees with the newly acquired knowledge for efficiency and effectiveness.

The manufacturing companies benefit from their collaboration with suppliers through acquisition of the much required technical skills. The suppliers are at time with more advanced technical skills due to long period of experience or specification in a given area. Collaborating with such suppliers ensures that the manufacturing firms learn and acquire the technical skills, thus stirring their

operations into success. According to Okello and Kanyora, (2015), technical alliances also ensures that the sharing of technology with the suppliers is enhanced, and this puts the manufacturing companies in a better state to compete and excel in the market. The advances in technology keeps on changing, thus through collaboration the manufacturing firms expand their knowledge-base, and this could be best achieved through the suppliers.

Table 1: Percentages, Mean and Standard Deviation of Supply Chain Technical Alliances Process

Indicators	1	2	3	4	5	Mean	S D
Technical skills is very crucial in increasing productivity	11%	11%	15%	35%	28%	3.59	1.30
Technology sharing is very key in improving productivity	0%	3%	16%	45%	37%	4.16	0.78
Knowledge sharing play a significant role in improving productivity	6%	8%	10%	39%	37%	3.93	1.15
Technical skills is very paramount in gaining new markets	5%	7%	8%	32%	48%	4.11	1.13
Technology sharing is very crucial in gaining new markets	5%	5%	8%	36%	46%	4.13	1.09
Knowledge sharing are vital for maintaining gaining new markets	7%	7%	11%	33%	42%	3.96	1.21
Technical skills has a positive effect in increasing profitability	7%	7%	10%	31%	46%	4.02	1.20
Technology sharing helps in increasing profitability	9%	9%	18%	16%	48%	3.86	1.35
Knowledge sharing are key in improving profitability	9%	11%	18%	18%	44%	3.79	1.35
Average						**3.95**	**1.17**

Key: SD= Strongly Disagree, D= Disagree, U= Uncertain, A= Agree, SA= Strongly Agree

International Journal of Supply Chain Management
ISSN 2518-4709 (Online)
Vol.8, Issue 1, No.2, pp 77 - 88, 2023

www.iprjb.org

Test of Hypothesis

The study sought to test for the hypothesis in order to ascertain the effect of each of supply chain technical alliances on performance of manufacturing firms in Kenya.

H_o: There is no significant effect of supply chain technical alliances on performance of manufacturing firms in Kenya.

The study's objective was to determine how supply chain technical alliances affected the performance of manufacturing firms in Kenya. The purpose of the study was to statistically determine how supply chain technical alliances —an independent variable— the performance of manufacturing firms in Kenya (dependent variable). The regression coefficients, model summary and the ANOVA test were used to accomplish this. This made it possible for the researcher to decide whether to accept the null hypothesis or not. The model equation used for the study variable was of the form; $\mathbf{Y = \beta_0 + \beta_4 X_4}$**.** The results in Table 4.21, presents the fitness of regression used in explaining the study phenomena. Supply chain technical alliances is essential on the performance of manufacturing firms in Kenya. This is evident, as shown by the R square value of 0.423. This implies that 42.3% change in dependent variable (performance of manufacturing firms in Kenya) can be accounted for by supply chain technical alliances. The other 57.7% change can be explained by the other variables used in the study.

The model was also statistically significant implying that supply chain technical alliances affect performance of manufacturing firms in Kenya. This is further supported by the F statistic 130.695 where the value was greater than the F critical value at 3.909 and 0.000 significance level, which is lower than the conventional 0.05. This implies there is goodness of fit in the model. To this end we thereby reject the null hypothesis that supply chain technical alliances does not improve performance of manufacturing firms.

$F_{statistic} = 130.695 > F_{critical} = 3.909$ (1, 178).

Regression of the coefficients results, revealed that supply chain technical alliances and performance of manufacturing firms in Kenya have a positive and significant relationship (**β**=0.575, p=0.000). This implies that a unit change in aspects related to supply chain technical alliances result to a 0.575 unit change in performance of manufacturing firms in Kenya.

$\mathbf{Y = B_0 + B_1 X_1 + e}$ **(**Performance of manufacturing firms =1.800 + 0.575* Supply chain technical alliances)

This implies that as level of Supply chain technical alliances increases also level performance increases in manufacturing firms. This finding was in line with the study by Nyamao (2016), who stated that supply chain technical alliances generate a learning process that, in accelerating invention and innovation creates dynamic economics. Through technical alliances, firms enhance their absorptive capacity. A firm's absorptive capacity is the firm's ability to acquire and value external knowledge (Muturi & Maroa, 2020). Absorptive capacity can further be said to be a set of organizational practices and procedures, by which firms acquire, assimilate, transform and exploit external knowledge that is, when firms partner with other firms to acquire the requisite

skills needed in an industry (Kimeto, 2018). Consequently, according to Munyi and Deya, 2019), assert that a firm's technical alliances may influence it capabilities as well as other's opinion of its capabilities. This is what manufacturing firms would require meeting the market needs and ensuring that they have the adequate technology for continued growth and performance. According to Baraza (2017), for entities to benefit from supply chain technical alliances, they ought to extensively collaborate with the suppliers such that they are able to manage the knowledge acquired from the suppliers while still managing their own internal knowledge to equip the employees with the newly acquired knowledge for efficiency and effectiveness.

Table 2: Regression Analysis for Supply Chain Technical Alliances

Model of fitness					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
.651a	0.423	0.42	0.327		
ANOVA					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	13.95	1	13.95	130.695	.000b
Residual	19	178	0.107		
Total	32.95	179			
Regression of Coefficients					
	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	β	**Std. Error**	**Beta**		
Constant	1.8	0.2		8.992	0.000
Supply chain technical alliances	0.575	0.05	0.651	11.432	0.000

Dependent Variable: Performance of Manufacturing Firms

Predictors: (Constant), Supply chain technical alliances

International Journal of Supply Chain Management
ISSN 2518-4709 (Online)
Vol.8, Issue 1, No.2, pp 77 - 88, 2023

www.iprjb.org

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings, the study concluded that supply chain technical alliances positively and significantly influence performance of manufacturing firms in Kenya. The sub-constructs of supply chain technical alliances that is technical skills, technology sharing and knowledge sharing influences performance positively. The findings indicated that majority of the firms believed implementation of supply chain technical alliances systems in firms was effective in improving performance. Technical skills improve performance and lack of technical skills decreased performance. The study findings also indicated that the nature of the technology sharing in majority of firms is proficient in improving performance. Proficient technology sharing improves performance while inefficient technology sharing decreases performance. The findings further revealed that majority of firms have applied knowledge sharing to improve on responsiveness to customer feedback which was found to improve performance.

Recommendations

On the supply chain technical alliances, it can be inferred that it is the duty of the policy makers and the management of manufacturing firms, ensure they collaborate with other firms on technical skills, sharing technology and acquired knowledge. The study also recommends that future scholars and researchers should aim to test the relationship between supply chain technical alliances and performance using different sub constructs apart from technical skills, technology sharing and knowledge sharing. The study also recommends the need for manufacturing companies to acquire technical competencies and skills that are essential in the daily operations of the firms. Through technical alliances, firms enhance their absorptive capacity. This will enable manufacturing firms meet the market needs and ensuring that they have the adequate technology for continued growth and performance. The study further recommends that the policy makers in manufacturing sector should enforce supply chain strategic alliances policies to ensure achievement of performance of all manufacturing firms.

REFERENCES

Amit, R. &Schoemaker, P.J.H. (2019). Strategic assets and organizational rent. *Strategic Management Journal* 14(1), 33-46.

Awino, Z. B. (2016). Strategic management: an empirical investigation of selected strategy variables on firm's performance*: a study of supply chain management in large private manufacturing firms in Kenya.* Doctoral dissertation: University of Nairobi.

Baraza, D. (2017). *Effects of competitive strategies on performance of manufacturing firms in Kenya; a case study of East Africa Breweries Limited*. Doctoral dissertation: University of Nairobi.

Bengtsson, J. & Kock, H. (2019). Corporate Capital Structure Decisions: Evidence from leveraged buyouts. *Financial Management,* 2(4), 76-87.

Döckel, J.A., & Ligthelm, A.A. (2015). Factors responsible for the growth of small business. South African *Journal of Economic and Management Sciences,* 8(1), 54-62

Kariithi, J. N. (2017). Factors affecting performance of manufacturing firms in Kenya: a case of pharmaceutical firms in Nairobi county. *Strategic Journal of Business & Change Management*, 4(2), 234-257.

Kessio, H. K. (2017). *Strategic Agility and Performance of Small and Medium Enterprises in Nairobi Central Business District, Kenya.* Master dissertation. University of Nairobi.

Kihara, N. S. A. (2016). *Influence of Strategic Contingency Factors on Performance of Large Manufacturing Firms in Kenya.* Doctoral dissertation. JKUAT.

Kimeto, C. I. (2018). *Strategic issue management practices among manufacturing firms in Nairobi, Kenya.* Doctoral dissertation. University of Nairobi.

Kiveu, M. N., Namusonge, M., & Muathe, S. (2019). Effect of innovation on firm competitiveness: the case of manufacturing SMEs in Nairobi County, Kenya. *International Journal of Business Innovation and Research,* 18(3), 307-327

Liu, W., & Atuahene-Gima, K. (2018). Enhancing product innovation performance in a dysfunctional competitive environment: The roles of competitive strategies and market-based assets. *Industrial Marketing Management,* 73, 7-20.

Munyi, G. M., & Deya, J. (2019). Effect of Strategic Value Chain Positioning on Firm's Performance: A Case of Pharmaceutical Supply Chain Firms in Kenya. *European Journal of Business and Strategic Management*, *4*(3), 58-76.

Muturi, W. &Maroa, J. G. (2020). Influence of strategic management practices on performance of floriculture firms in Kenya a survey of Kiambu County, Kenya. *International Journal of Economics, Commerce and Management 3*(7), 23-48.

Nyamao, O. L. (2016). *Effect of Strategic Leadership on Performance of Small and Medium Enterprises in Kenya. A case of manufacturing firms in Kenya*. Doctoral dissertation. University of Nairobi.

Okello, B. & Kanyora, S. N. (2015). Influence of strategic management practices on performance of construction firms in Kenya, a Case of reliable concrete works limited, Kenya. *International Journal of Economics, Commerce and Management* 3(6),53-87.

Roya R. (2017). Supply chain technical alliances (people, process and technology) and organisational culture in hotels: Which traits matter? *International Journal of Contemporary Hospitality Management.* 29. 10.1108/IJCHM-10-2015-0617.

Sasaka, P. S., Namusonge, G. S. & Sakwa, M. M. (2014). Effects of strategic management practices on corporate social responsibility performance of parastatals in Kenya. *European Journal of Business and Innovation Research*, 2(1), 106-128.

Soita, N. (2015). Factors affecting supply chain collaboration in government ministries in Kenya. *International Journal of Production Research*, 54(2), 403-404.

Thrulogachantar, P. &Zailani, S. (2016). The influence of purchasing strategies on manufacturing performance: An empirical study in Malaysia. *Journal of Manufacturing Technology Management*, 22(5), 641-663.

Wambugu, N.V. (2014). *Influence of competitive strategies on performance of large supermarket chains in Nairobi city County, Kenya.* Doctoral dissertation. University of Nairobi.

Wang, K. T. (2015). *Research design in counseling*. Chicago: Nelson Education.