

International Journal of **Supply Chain Management** (IJSCM)

**Effect of Strategic Outsourcing Approaches on The Performance of
Manufacturing Companies Listed at The Nairobi Security
Exchange, Kenya**

Moses Munguti Kisilu and Ms. Catherine Gatari



**CARI
Journals**

Effect of Strategic Outsourcing Approaches on The Performance of Manufacturing Companies Listed at The Nairobi Security Exchange, Kenya

^{1*}Moses Munguti Kisilu

Post Graduate Student: School of Business, KCA University

*Corresponding Author's E-mail: mkisilu1@gmail.com

^{2*}Ms. Catherine Gatari

Lecturer, Department of procurement, KCA University

Abstract

Purpose: This study sought to establish the effect of strategic outsourcing approaches on the performance of manufacturing.

Methodology: A descriptive survey design was adopted, informed by the relatively small population of the listed manufacturing and allied companies, which doubled as the target population of the study. A structured and closed-ended questionnaire was used to collect primary data, administered by drop and pick a method. Total of (72) strategic managers drawn from the nine manufacturing firms were involved in the study. Data collected was quantitatively scrutinized based on research objectives and presented in form of tables and charts for interpretation. The data was then be analyzed through descriptive and inferential statistics supported by the statistical package for social sciences (SPSS), version 22. Regression analysis was done to ascertain the effect of strategic outsourcing approaches on performance. The response rate of the study was 92%.

Results and conclusion: The findings of the study showed that strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing have a positive relationship with performance of performance of the manufacturing companies listed at the Nairobi Security Exchange. The results of the regression analysis revealed there is a significant positive relationship between the dependent variable and the independent variable. The independent variables reported R-value of .805 indicating that there is a perfect relationship between a dependent variable and independent variables. R square value of 0.647 means that 64.7% of the corresponding variation in performance of manufacturing companies listed at the Nairobi Security Exchange can be explained or predicted by (strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing) which indicated that the model fitted the study data. The results of the regression analysis revealed that there was a significant positive relationship between the dependent variable and independent variable at ($\beta = 0.647$), $p=0.000 <0.05$).

Unique contribution to theory, practice and policy: Finally, the study commends that manufacturing companies listed at the Nairobi Security Exchange embrace the various strategic outsourcing approaches as a way to improve their performance. Equally, the study recommends

similar studies be carried out in other industries across the country and in abroad to ascertain if the same results can be obtained and generalized.

Keywords: *Strategic professional outsourcing, strategic business process outsourcing, strategic project outsourcing, strategic professional outsourcing.*

1.1 INTRODUCTION

Contemporary developments in information technology coupled with globalization have accelerated global market competition exposing manufacturers to the unforgiving and ever-changing market undercurrents. Besides, the sector is faced with numerous challenges including; the growing cost of manufacturing, unstable government policies, poor infrastructure, lack of access to long term asset financing, insufficient and unreliable energy supply, etc., (the Kenya Manufacturing Priority Agenda, (MPA), 2018). To counter these developments, Manufacturers have found themselves captives of what Charles Darwin's theory of evolution termed 'the survival for the Fittest', where only those that are adaptive to change survive. It is a race against time with manufacturing companies re-examining, re-engineering, and diversifying operations by ceding out none core processes to specialized third-party companies to focus on core competencies and stay afloat.

Business concepts continue to change, with manufacturers across different industries adopting pioneering elastic policies that redefine their ultimate business process configuration to grab market opportunities and remain competitive. Among these strategies is the strategic integration of supply chain performance with outsourcing part of their business. According to Isaksson, & Lantz (2015) companies have adopted outsourcing to competitively re-shape and re-align business as well as bolster their competitive market position. Outsourcing is the practice of re-assigning activities conventionally in-sourced to an outside provider (s) local or abroad (off-shore). This stratagem embroils offering one or many business processes to a third party for accomplishment (Scott-Jackson et al., (2005).

In the past (before 1990's) outsourcing was viewed as a tactic tool which involved outsourcing of peripheral functions to reducing business operational costs. Fast forward the trend advanced to investment in intensive tasks and in the 1990s, outsourcing gained ground, justified by reduced costs, improved business elasticity, and improved product and service quality (Lau and Zhang, 2006).

1.1 Strategic Outsourcing approaches

The advent of globalization, developments in technology, amplified social demands, and unpredictable market economy trends have forced organizations to employ strategic outsourcing techniques to bolster their competitiveness and profitability. Information sharing has been made easy, stakeholders are now informed on the kind of products and services they want, this continues to exert pressure on industries to embrace invention and innovation to create customer value through production of quality goods and services at market competitive prices (Prescott, 2011).

1.2 Problem Statement

Despite, the crucial role played by the manufacturing sector towards stabilizing both the local and global economy, the sector has in the recent past experienced performance issues exhibited by;

trade imbalance, drop in GDP, and restructuring, closure and relocation of manufacturing firms in Kenya (Magutu, Aduda, and Nyaoga, 2015).

Driven by remarkable growth in Agriculture, manufacturing, and transport sector the Kenyan economy grew by a whopping 6.3% percent in 2018, an improvement compared to a growth of 4.7 percent in 2017, (KNBS, 2019b). Specifically, the Manufacturing sector recorded a growth of 4.2 percent in 2018, which a remarkable rebound from a 0.5 percent in 2017, (Economic Survey, 2019). Conversely, its contribution to (GDP) declined from 10 percent in 2014 to 7.7 percent in 2018 (Deloitte, 2019).

This fluctuation in the performance of the manufacturing sector has led to a significant rise to fears of a premature deindustrialization phenomenon (kam.co.ke, 2020). Kenya once a priority investment destination in Africa, today, the case is different as international investment companies bypass Kenya for other African countries, (Memia, 2018). The third quarter manufacturing barometer 2017 showed that 45% of the Kenyan manufacturers cited cost of industrial inputs, limited access to financing, and poor infrastructure as the major factors hampering the sectors capacity maximization and growth. Further the population of manufacturing companies in the country has gone up in the recent years exhibited by manufacturing output growth by 69% since 2010, (The Manufacturing Priority Agenda (MPA) 2018). This has increased Competition forcing companies to change tact in the way of operating some of their business functions to stay afloat

Theoretically, previous studies that investigated the effect of outsourcing on the performance of manufacturing companies in Kenya were case studies or either focused on a specific sector within the industry or only covered one or two aspects of outsourcing. For instance, Musau,(2016); Kamanga & Ismail, (2017) conducted case studies on the impact of strategic outsourcing on organizational performance, case study of Bidco Africa limited and Delmonte Kenya Limited. Similarly, Tesfaye, (2019) did a study on the effect of strategic sourcing on organizational Performance: a case of MOHA Soft Drinks Industry S.C, Addis Ababa. Kivuva, (2018), Kyusya (2015) conducted studies on the effect of outsourcing on the operational performance of oil marketing companies and the shipping industry respectively.

Worth to note, the two studies recommended a study on the effect of outsourcing in the manufacturing sector. The above statistics and analysis demonstrate knowledge gap and a performance problem in the manufacturing sector in Kenya. Thus, the need for an empirical study to evaluate the effects of strategic outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange (NSE).

1.3 Objectives of the Study

- i. To find out the effect of strategic professional outsourcing on the performance of the manufacturing companies listed at the Nairobi Security Exchange.
- ii. To determine the effect of strategic manufacturing outsourcing on the performance of the manufacturing companies listed at the Nairobi Security Exchange.
- iii. To find out the effect of strategic business process outsourcing on the performance of the manufacturing companies listed at the Nairobi Security Exchange.
- iv. To investigate the effect of strategic project outsourcing on the performance of the manufacturing companies listed at the Nairobi Security Exchange

2.0 LITERATURE REVIEW

2.1 Resource-Based Theory

Resource based theory also known as the resource-advantage theory denotes the management framework for determining the strategic resources a company can exploit to achieve sustainable competitive advantage. Resource-based theory (RBT) analyses organizations' internal assets and competences. It explores whether it is prudent to outsource or produce products and services internally. Importantly this theory underlines the company's internal resources in attaining sustainable competitiveness, contents that the ability of a company to achieve and sustain competitive advantage is determined by how the company makes use of the resources in their possession. For the resources to be strategic they must be valuable, rare, imperfectly imitable and non-substitutable, (Barney, 1991).

2.2 STRATEGIC OUTSOURCING APPROACHES

2.1.1 Strategic professional outsourcing

The global labor market is growing amid the local economic dynamics; As such, there is an upsurge in the number of manufacturing firms outsourcing professional services to expert personnel in low-cost labor markets both locally and overseas. This is in an attempt to acquire a competitive edge over their rivals. A study by Gupta, (2004) affirmed that the increased movement towards a single globalized economy exerted more pressure on manufacturing companies, and that there was need for companies to employ strategies that will enable them to gain from global trade efficiencies such as; low-cost talented labors and innovation capabilities through strategic outsourcing of different processes and services.

2.1.2 Strategic manufacturing outsourcing

Manufacturing outsourcing is an unequivocal strategy for modern manufacturing companies wishing to become more effective and enhance their competitiveness. Owing to the increased competition, the opportunities for outsourcing have moved from peripheral tasks such as cleaning, service maintenance, and hospitality services to critical tasks including; product design, parts assembly and manufacturing. In his study on outsourcing in the manufacturing sector, Arnold, (2015) affirmed that it's regular for a modern manufacturing organization to outsource product design and development services. This is a clear affirmation that today outsourcing is not tied to the non-core business activities, but a strategic issue that is integrated into the entire company strategy.

2.1.3 Strategic business process outsourcing

As part of the modern business approaches manufacturing companies have adopted business process outsourcing to augment their competitive position in the industry both locally and globally amid the turbulent global forces. This process involves the delegation of peripheral business tasks to specialized third party provider to coordinate, administer, and manage them efficiently. (Saxena and Bharadwaj, 2009, p. 688). It encompasses ceding out of operations and responsibilities of specific business processes to external service provider (Jordan, 2015).

2.1.4 Quality Management practices.

Quality Management practices have become essential in the business world. Most manufacturing firms are conforming to international standards in order for the product to compete locally, regionally and globally. The International Organization for Standardization (ISO 9000) is a series of international standards on quality assurance and quality management that state how strategic activities are to be carried out in a firm to guarantee that quality is reflected in the final goods and products. Manufacturing firms must conform and adhere to the set standards for firms by ensuring that quality is achieved (Martin, 2007).

2.1.5 Strategic project outsourcing

Global industry competition is perpetually building up, putting more cost and quality pressures on the manufacturing sector. In coping with this challenge many companies have opted to contract out processes and services, to specialized, efficient external companies. Design and development of innovative merchandises and execution of value adding strategies are vital project initiatives in the manufacturing industry. Across the industries projects are carried out by managers. This is because the capacity to successfully accomplish projects borders on organizational performance.

2.2 Operationalization of Variables

Table 1: Operationalization of Variables

Variable Definition	Indicator
Strategic business process outsourcing	Delivery lead-time
Logistics Services (3PL)	Market coverage
Cleaning & security services	Cleanliness and safety
Machine repair and maintenance services	Machine turnaround time
Strategic manufacturing outsourcing	Product quality
Production	Production cost
Product Designing	Production output rate
Parts Assembling	Quality/Variety of product designs
Strategic professional service outsourcing	Contract compliance/Breach
Legal service	Staff satisfaction
HR Outsourcing	Transaction visibility
Information Technology	
Strategic project outsourcing	Project success/failure
Project Management	Project turnaround
Construction project	Project cost
Software development	
Organizational performance	Profits
Profitability	Production output
Productivity	Quality of products
Product/services quality	Rate of new orders
Market share	Cost savings
Cost Efficiency	

Source: (Author, 2020)

3.0 METHODOLOGY

A descriptive survey design was adopted, informed by the relatively small population of the listed manufacturing and allied companies, which doubled as the target population of the study. A structured and closed- ended questionnaire was used to collect primary data, administered by drop and pick a method. Total of (72) strategic managers drawn from the nine manufacturing firms were involved in the study. Data collected was quantitatively scrutinized based on research objectives and presented in form of tables and charts for interpretation. The data was then be analyzed through descriptive and inferential statistics supported by the statistical package for social sciences (SPSS), version 22. Regression analysis was done to ascertain the effect of strategic outsourcing approaches on performance

Regression model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e,$$

Where by:

β_0 = is the Y intercept where X=Zero

Y = Organizational Performance,

X₁ = Strategic professional service outsourcing

X₂ = Strategic manufacturing outsourcing

X₃ = Strategic project, outsourcing

X₄ = Strategic business process outsourcing (BPO) and e = Error term.

4.0 RESULTS FINDINGS

4.1 Descriptive Statistics

4.1.1 Strategic professional outsourcing

The first objective of the study was to assess the effect of strategic professional outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange. The researcher sought to establish whether manufacturing companies listed at the Nairobi Security Exchange had outsourced professional services such as legal services, information technology services and human resource services. Results show that the majority of the manufacturing companies had outsourced information technology at 40%, followed legal services were at 30%, and human resources services at 30%, see table 2 below. This implies that manufacturing companies had embraced the strategic outsourcing of professional services to bolster their market position.

Table 2: Outsourced Professional Services

Services	Percentage
Legal services	30
Information technology services	40
Human resource services	30
Total	100.0

Source: Author 2020

4.1.2 Effect of strategic professional outsourcing on organizational performance

The respondents were asked to indicate the extent to which they agree on various statements concerning strategic professional outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange. The responses were rated on a Likert scale and the results presented in Table 3 below. It was rated on a 5-point Likert scale ranging from; 1 = strongly disagree to 5 = strongly agree. The scores of 'strongly disagree' and 'disagree' have been taken to represent a statement not agreed upon, equivalent to the mean score of 0 to 2.5. The score of 'neutral' has been taken to represent a statement agreed upon, equivalent to a mean score of 2.6 to 3.4. The score of 'agree' and 'strongly agree' has been taken to represent a statement highly agreed-upon equivalent to a mean score of 3.5 to 5.

The results revealed that majority of the respondents with a mean of (4.13) agreed that through strategically outsourcing the organization had reduced the cost of legal services. The measure of dispersion around the mean of the statements was 0.94 indicating the responses were varied. The result revealed that majority of the respondent as indicated by a mean of (4.27) agreed with the statement human resource service outsourcing reduces staff and streamlines the organizational process. The standard deviation for was 0.968 showing a variation. The result revealed that majority of the respondent (4.55) agreed with the statement that human resource service outsourcing allows organizations to maneuver internal politics in the recruitment process. The results were varied as shown by a standard deviation of 0.5. The average response for the statements on Human resource service outsourcing showed that Human resource service outsourcing reduces administrative burden through cost and time saving, that human resource service outsourcing enhances internal company expertise this was indicated by a mean value of (4.22) and (4.4), with a standard deviation of 0.955 and 0.704 respectively.

With a mean of (4.46), the majority of respondents agreed with the statement that outsourced IT services are cost-effective. The measure of dispersion around the mean of the statements was 0.787 indicating the responses were varied. Further results revealed that majority of the respondent by a mean of (4.44) and (4.21) agreed with the statement professional service outsourcing has enhanced flow of information in the organization and increased our company's flexibility for innovation. The results were varied by a standard deviation of 0.786 and 0.942 respectively. The average response for the statements on outsourced professional services is more dependable compared to insourced ones was (4.01). The results were varied as shown by a standard deviation of 0.81.

The average mean of all the statements was 4.01 indicating that most of the respondents agreed on strategic professional outsourcing affecting the performance of manufacturing companies listed at the Nairobi Security Exchange. However, the variations in the responses were varied as shown by a standard deviation of 0.81. These findings imply that strategic professional outsourcing was at the heart of the organizations. The findings agree with Lembke (2012) that using strategic professional outsourcing as a strategic outsourcing tool is a smart move and can reduce expenses significantly.

This means companies strategically outsourcing professional services stand a chance of sustaining their competitive market position. This is because when companies save on cost and time get the opportunity to offer quality time and cost-effective goods and services.

Table 3: Strategic professional outsourcing

Statements	Mean	Std. Deviation
The organization has reduced the of legal services via outsourcing	4.10	0.94
Human resource service outsourcing reduces staff and streamlines the organizational process	4.27	0.968
Human resource service outsourcing allows organizations to maneuver internal politics in the recruitment process	4.55	0.5
Human resource service outsourcing reduces administrative burden thus, saving time and cost	4.22	0.955
Human resource service outsourcing enhances internal company expertise	4.41	0.704
Outsourced IT services are cost-effective	4.46	0.787
professional service outsourcing has enhanced flow of information in the organization	4.44	0.786
Outsourcing has increased our company's flexibility for innovation	4.21	0.942
Outsourced professional services are more dependable compared to insourced ones	4.11	1.096
Average	4.01	0.81

Source: Author, 2020

4.1.3 Strategic Manufacturing Outsourcing and organizational performance

The second objective of the study was to establish the effect of strategic manufacturing outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange. The researcher sought to establish whether manufacturing companies listed at the Nairobi Security Exchange had strategically outsourced manufacturing functions including; product design, assembling of parts and product design services.

Table 4: Outsourced Manufacturing Services

Services	Per cent
Production services	20
Product design services	45
Product parts assembly	35
Total	100.0

Source: Author, 2020

Results indicated that product design services were the commonly outsourced services at 45%, product parts assembly at 35% and production services at 25%. This implies that the majority of companies had outsourced one of two manufacturing functions and processes and that production services were least outsourced among the companies listed at the Nairobi security exchange.

4.1.4 Effect of strategic manufacturing outsourcing on organizational performance

The respondents were also asked to comment on statements regarding the effect of strategic manufacturing outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange.

The results revealed that majority of the respondent with a mean of (3.58) agreed with the statement that Production outsourcing has improved the quality of the goods. The measure of dispersion around the mean of the statements was 1.0 indicating the responses were varied. The result revealed that majority of the respondent as indicated by a mean of (3.63) agreed with the statement Production outsourcing has reduced overall organizational capital investments. The standard deviation was 0.9 showing a variation. The result revealed that majority of the respondent (3.6) agreed with the statement that Outsourced production and design services are of high quality compared to insourced ones. The results were varied as shown by a standard deviation of 0.7.

The average response for the statements on Outsourced product assembling activities is more economical compared to insourced ones was (3.45). The results were varied as shown by a standard deviation of 1.2. The average responses for the statements on Parts assembling outsourcing have relieved company personnel of non- core activities were (3.5). The results were varied as shown by a standard deviation of 1.0. The results revealed that majority of the respondent with a mean of (3.61) agreed with the statement that Outsourcing has reduced product development budget. The measure of dispersion around the mean of the statements was 0.6 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4.17) agreed with the statement Production outsourcing has reduced personnel training cost. The standard deviation was 0.8 showing a variation. The result revealed that majority of the respondent (3.63) agreed with the statement that Parts assembling outsourcing has reduced production lead time. The results were varied as shown by a standard deviation of 0.8. The average response for the statements on manufacturing outsourcing has reduced production overheads was (3.66). The results were varied as shown by a standard deviation of 1.

The average mean of all the statements was 3.77 indicating that majority of the respondents agreed on strategic manufacturing outsourcing affecting the performance of manufacturing companies listed at the Nairobi Security Exchange. However, the variations in the responses were indicated by a standard deviation of 1.134. These findings agree with Maghanga (2011) that through strategic manufacturing outsourcing, companies can improve competitive Market positioning.

Table 5: Strategic manufacturing outsourcing

Statements	Mean	Std. Deviation
Production outsourcing has improved the quality of the goods	3.58	1.0
Production outsourcing has reduced overall organizational capital investments	3.63	0.9
Outsourced production and design services are of high quality compared to insourced ones	3.6	0.7
Outsourced product assembling activities are more economical compared to insourced ones	3.45	1.2
Parts assembling outsourcing has relieved company personnel of non- core activities	3.5	1.0
Outsourcing has reduced product development budget	3.61	0.6
Production outsourcing has reduced personnel training cost	4.17	0.8
Parts assembling outsourcing has reduced production lead time	3.63	0.8
Manufacturing outsourcing has reduced production overheads	3.66	1.0
Average	3.77	1.134

Source: Author, 2020**4.1.5 Strategic business process outsourcing**

The study sought to establish the effect of strategic business process outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange as the third objective. Respondents were asked to state whether their companies had outsourced the following services; Logistics, cleaning and security services and Machine repair and maintenance services. See table 6 below;

Table 6: Distribution of Outsourcing for Strategic Business Process

Services	Percentage
Logistics services	30
Clearing and security services	40
Machine repair and maintenance services	30
Total	100.0

Source: Author, 2020

Results indicated that cleaning and security services were the commonly outsourced services at 40% then logistics services and machine repair and maintenance services at 30% each. This means that majority of manufacturing companies had outsourced cleaning and security services. These are non-core activities that companies outsource to allow the management together with other company resources are channelled toward the core functions of a company.

4.1.6 Effect of strategic business process outsourcing on organizational performance

The respondents were asked to indicate their levels of agreement on statements concerning strategic business process outsourcing and organizational performance. (See table 7 below)

The results revealed that majority of the respondent with a mean of (3.8) agreed with the statement that outsourced logistics has increased vehicle fleet management. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied. The result revealed that majority of the respondent as indicated by a mean of (4.9) agreed with the statement outsourcing logistics has enhanced vehicle and route optimization. The standard deviation was 0.9 showing a variation. The result revealed that majority of the respondent (3.4) agreed with the statement that outsourced logistics had increased market coverage. The results were varied as shown by a standard deviation of 1.3.

The average response for the statements on outsourced service maintenance has reduced the cost of machine service/repair by qualified engineers was (3.6). The results were varied as shown by a standard deviation of 1.2. The average response for the statements on cases of machine failures has reduced by outsourcing maintenance services was (4.1). The results were varied as shown by a standard deviation of 0.8. The results revealed that majority of the respondent with a mean of (4.1) agreed with machine productivity improved by outsourcing maintenance. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied.

Majority of the respondent as indicated by a mean of (4) agreed with the statement that it's cost-effective to outsource repair and maintenance services that insourcing. The standard deviation was 1 showing a variation. The result revealed that majority of the respondent (4.2) agreed with the statement that the quality of outsourced cleaning and security is better than in-sourced ones. The results were varied as shown by a standard deviation of 0.8. The average response for the statements on the cost of running our organization has greatly decreased by outsourcing cleaning and security services were (3.9). The results were varied as shown by a standard deviation of 0.9.

Average mean of all the statements was 3.8 indicating that majority of the respondents agreed on strategic business process outsourcing affect the performance of manufacturing companies listed at the Nairobi Security Exchange. However, the variations in the responses were varied as shown by a standard deviation of 0.9. The results are in tandem with Parkhe (2013) who opine that an organization benefits greatly when strategic business process outsourcing is embraced in their strategic outsourcing.

Table 7: Strategic business process outsourcing

Statements	Mean	Std. Deviation
Outsourced logistics has increased vehicle fleet management	3.8	0.9
Outsourcing logistics has enhanced vehicle and route optimization	4.9	0.9
Outsourced logistics has increased market coverage	3.4	1.3
Outsourced service maintenance has reduced the cost of machine service/repair by qualified engineers	3.6	1.2
Cases of machine failures have reduced by outsourcing maintenance services	4.1	0.8
Machine productivity improved by outsourcing maintenance	4.1	0.9
It is cost-effective to outsource repair and maintenance services that insourcing	4.0	1.0
The quality of outsourced cleaning and security is better than in-sourced ones.	4.2	0.8
The cost of running our organization has greatly decreased by outsourcing cleaning and security services	3.9	0.9
Average	3.8	0.9

Source: Author, 2020**4.1.7 Strategic project outsourcing**

Finally, the study sought to find out the effect of strategic project outsourcing on the performance of manufacturing companies listed at the Nairobi Security Exchange. The respondents were asked to indicate Respondents were asked to state whether their companies had outsourced Construction projects, project management services and software development services.

Results indicated that the majority of companies had outsourced software development project at 55% followed by construction project outsourcing at 21% and finally project management services at 24%. Clearly, software development services were the commonly outsourced services by a majority of the companies. See table (8).

Table 8: Outsourced project services

Services	Percentage
Project management services	24
Software development project	55
Construction project outsourcing	21
Total	100.0

Source: Author, 2020

4.1.8 Effect of strategic project outsourcing on organizational performance

Respondents were asked to indicate their views on the following strategic project outsourcing statements. Most of the respondent with a mean of (4.5) agreed that outsourced construction projects were completed on time and with less conflict. The measure of dispersion around the mean of the statements was 0.5. The result revealed that majority of the respondent as indicated by a mean of (3.9) agreed that construction projects promoted compliance with government regulations and mandates. The standard deviation was 0.8 showing a variation. The result revealed that majority of the respondent (3.2) agreed with the statement that outsourced software development projects are cost-effective compared to in house ones. The results were varied as shown by a standard deviation of 1.4

The average response for the statements on outsourced software is of high quality compared to in house ones was (4.5). The results were varied as shown by a standard deviation of 0.5. The average response for the statements on outsourced projects ensures tap on specialists' knowledge needed for the project was (4.4). The results were varied as shown by a standard deviation of 0.6. The results revealed that majority of the respondent with a mean of (4.4) agreed with the statement outsourced projects are completed on scope and budget. The measure of dispersion around the mean of the statements was 0.9 indicating the responses were varied.

The result revealed that majority of the respondent as indicated by a mean of (4.3) agreed with the statement outsourcing enables organizations to focus on core competencies. The standard deviation was 0.7 showing a variation. The result revealed that majority of the respondent (4.5) agreed with the statement that project outsourcing has enhanced in-house project management competency of the company. The results were varied as shown by a standard deviation of 1.0. The average response for the statements on project management outsourcing leads to better project definition, monitoring, reporting & communications were (4.1). The results were varied as shown by a standard deviation of 1.0.

Average mean of all the statements was 4.2 indicating that majority of the respondents agreed on strategic project outsourcing affecting the performance. However, the variations in the responses were varied by a standard deviation of 0.8. The results agree with Gordon (2014) that an organization that embraces strategic project outsourcing benefits greatly in its operations.

Table 9: Strategic project outsourcing

Statements	Mean	Std. Deviation
Outsourced construction projects are completed on time and with less conflict	4.5	0.5
Outsourced construction projects promote compliance with government regulations and mandates.	3.9	0.8
Outsourced Software development projects are cost-effective compared to in house ones	3.2	1.4
Outsourced software is of high quality compared to in house ones	4.5	0.5
Outsourced Projects ensures tap on specialist's knowledge needed for the project	4.4	0.6
Outsourced projects are completed on scope and budget	4.4	0.9
Outsourcing enables organizations to focus on core competencies	4.3	0.7
Project outsourcing has enhanced in-house project management competency of the company	4.2	1.0
Project management outsourcing leads to better project definition, monitoring, reporting & communications	4.1	1.0
Average	4.2	0.8

Source: Author, 2020**4.2 Correlation Analysis**

The study used correlation analysis to determine both the significance and degree of association of the variables and also predict the level of variation in the dependent variable caused by the independent variables. The correlation summary shown in Table 10 shows that the relationship between each of the independent variables and the dependent variable were all significant at the 95% confidence level. The correlation analysis to determine the relationship between strategic outsourcing approaches effect on manufacturing companies listed at the Nairobi Security Exchange in Kenya, Pearson correlation coefficient computed and tested at 5% significance level.

The results show a positive relationship ($r=.509$) between strategic professional outsourcing and performance of manufacturing companies listed at the Nairobi Security Exchange. Besides, the researcher found the relationship to be statistically significant at 5% level ($p=0.000, <0.05$). The results also indicate that there is a positive relationship ($r=.398$) between strategic manufacturing outsourcing and performance of manufacturing companies listed at the Nairobi Security Exchange. Besides, the researcher found the relationship to be statistically significant at 5% level ($p=0.000, <0.05$).

The results indicate that there is a positive relationship ($r=.678$) between strategic business process outsourcing and performance of manufacturing companies listed at the Nairobi Security Exchange. Also, the researcher found the relationship to be statistically significant at 5% level ($p=0.000, <0.05$). The results indicate that there is a positive relationship ($r=.685$) between strategic project outsourcing and performance of manufacturing companies listed at the Nairobi Security Exchange.

Besides, the researcher found the relationship to be statistically significant at 5% level ($p=0.000$, <0.05). Hence, it is evident that all the independent variables could explain the performance of manufacturing companies listed at the Nairobi Security Exchange, based on the correlation analysis.

Table 10: Summary of Pearson's Correlations

Correlations		Strategic professional outsourcing	Strategic manufacturing outsourcing	Strategic business process outsourcing	Strategic project outsourcing	Performance of Manufacturing Companies
Strategic professional outsourcing	Pearson Correlation Sig. (2-Tailed)	1				
Strategic manufacturing outsourcing	Pearson Correlation Sig. (2-Tailed)	.263** 0.007	1			
Strategic business process outsourcing	Pearson Correlation Sig. (2-Tailed)	.350** 0	.346** 0	1		
Strategic project outsourcing	Pearson Correlation Sig. (2-Tailed)	.363** 0	.516** 0	.543** 0	1	
Performance of Manufacturing Companies	Pearson Correlation Sig. (2-Tailed)	.509** 0	.398** 0	.678** 0	.685** 0	1

** Correlation is significant at the 0.05 Level (2-Tailed).

4.3 Regression Analysis

In this study multivariate regression analysis was used to determine the importance of the relationship between the dependent variable and all the independent variables put together. Regression analysis was conducted to find the proportion in the dependent variable (performance of manufacturing companies listed at the Nairobi Security Exchange) which can be predicted from the independent variables (strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing).

Table 11 presents the regression coefficient of independent variables against the dependent variable. The results of the regression analysis revealed there is a significant positive relationship

between the dependent variable and the independent variable. The independent variables reported R-value of .805 indicating that there is a perfect relationship between a dependent variable and independent variables. R square value of 0.647 means that 64.7% of the corresponding variation in performance of manufacturing companies listed at the Nairobi Security Exchange can be explained or predicted by (strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing) which indicated that the model fitted the study data. The results of the regression analysis revealed that there was a significant positive relationship between the dependent variable and independent variable at ($\beta = 0.647$), $p=0.000 < 0.05$).

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.805 ^a	.647	.633	.166295

a. Predictors: (Constant), Strategic professional outsourcing, Strategic manufacturing outsourcing, Strategic business process outsourcing, Strategic project outsourcing

b. Dependent Variable: Performance of Manufacturing companies listed at the Nairobi Security Exchange

Table 12: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.027	4	1.257	27.933	.000 ^b
	Residual	2.738	61	0.045		
	Total	7.765	65			

a. Predictors: (Constant), Strategic professional outsourcing, Strategic manufacturing outsourcing, Strategic business process outsourcing, Strategic project outsourcing

b. Dependent Variable: Performance of Manufacturing companies listed at the Nairobi Security Exchange

The significance value is 0.000 which is less than 0.05 thus the model is statistical significance in predicting how strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing affect the performance of manufacturing companies listed at the Nairobi Security Exchange. The F critical at 5% level of significance was 16.8. Since F calculated which can be noted from the ANOVA table above is 27.933 which is greater than the F critical (value= 16.8), this shows that the overall model was significant.

Therefore, the study established that; strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing were all-important strategic outsourcing tools influencing the performance of manufacturing companies listed at the Nairobi Security Exchange. These results agree with Kazemi and Hooshyar (2018) who found a positive and significant effect of strategic outsourcing approaches on the performance of manufacturing companies listed at the Nairobi Security Exchange.

Table 13: Coefficients of Determination

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
1 (Constant)	2.353	0.202		11.619	0.000
Strategic professional outsourcing	0.183	0.037	0.392	4.948	0.000
Strategic manufacturing outsourcing	0.158	0.045	0.232	3.546	0.001
Strategic business process outsourcing	0.121	0.023	0.383	5.272	0.000
Strategic project outsourcing	0.001	0.036	0.027	0.021	0.040

a. Predictors: (Constant), Strategic professional outsourcing, Strategic manufacturing outsourcing, Strategic business process outsourcing, Strategic project outsourcing

b. Dependent Variable: Performance of Manufacturing companies listed at the Nairobi Security Exchange

The research used a multiple regression model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

The regression equation was; $Y = 2.353 + 0.183X_1 + 0.158X_2 + 0.121X_3 + 0.001X_4$

The regression equation above means that taking all factors into account (strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing) constant at zero, the performance of manufacturing companies listed at the Nairobi Security Exchange will be an index of 2.353.

The findings presented also shows that taking all other independent variables at zero, a unit increase in strategic professional outsourcing will lead to a 0.183 increase in performance of manufacturing companies listed at the Nairobi Security Exchange. The P-value was 0.000 which is less 0.05 and thus the relationship was significant. The study also found that a unit increase in strategic manufacturing outsourcing will lead to a 0.158 increase in performance of manufacturing companies listed at the Nairobi Security Exchange. The P-value was 0.001 and thus the relationship was significant. In addition, the study found that a unit increase in strategic business process outsourcing will lead to a 0.121 increase in performance of manufacturing companies listed at the Nairobi Security Exchange. The P-value was 0.000 and thus the relationship was significant.

Lastly, the study found that strategic project outsourcing will lead to a 0.001 increase in performance of manufacturing companies listed at the Nairobi Security Exchange. The P-value was 0.040 and hence the relationship was significant since the p-value was lower than 0.05. The findings of the study show that strategic professional outsourcing contributed most to the performance of manufacturing companies listed at the Nairobi Security Exchange.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Findings

In light of the above findings, the study affirms that performance of manufacturing companies listed at the Nairobi Security Exchange can be greatly enhanced through strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and lastly, strategic project outsourcing.

Concerning strategic professional outsourcing, the regression coefficients of the study show that it has a significant effect of 0.183 on performance of manufacturing companies listed at the Nairobi Security Exchange. This implies that increasing levels of strategic professional outsourcing by a unit would increase the levels of performance of manufacturing companies listed at the Nairobi Security Exchange by 0.183. This shows that strategic professional outsourcing has a positive effect on the performance of manufacturing companies listed at the Nairobi Security Exchange.

In regard to strategic manufacturing outsourcing, the regression coefficients of the study show that it has a significant effect of 0.158 on the performance of manufacturing companies listed at the Nairobi Security Exchange. This implies that increasing levels of strategic manufacturing outsourcing by a unit would increase the levels of performance of manufacturing companies listed at the Nairobi Security Exchange by 0.158. This shows that strategic manufacturing outsourcing has a positive effect on the performance of manufacturing companies listed at the Nairobi Security Exchange.

With regard to strategic business process outsourcing, the regression coefficients of the study show that it has a significant effect of 0.121 on the performance of manufacturing companies listed at the Nairobi Security Exchange. This implies that increasing levels of strategic business process outsourcing by a unit would increase the levels of performance of manufacturing companies listed at the Nairobi Security Exchange by 0.121. This shows that strategic business process outsourcing has a positive effect on the performance of manufacturing companies listed at the Nairobi Security Exchange.

Lastly, in regard to strategic project outsourcing, the regression coefficients of the study indicate a significant effect of 0.001 on the performance of manufacturing companies listed at the Nairobi Security Exchange. This infers that increasing levels of strategic project outsourcing by a unit would increase the levels of performance of manufacturing companies listed at the Nairobi Security Exchange by 0.001. This shows that strategic project outsourcing has a positive effect on the performance of manufacturing companies listed at the Nairobi Security Exchange.

5.2 Conclusion

Based on the study finding the study concludes that there is a positive direct relationship between strategic professional outsourcing, strategic manufacturing outsourcing, strategic business process outsourcing and strategic project outsourcing and the performance of manufacturing companies listed at the Nairobi Security Exchange. This implies that companies adopting these approaches will enhance their performance compared.

5.3 Recommendations

Finally, the study commends that manufacturing companies listed at the Nairobi Security Exchange embrace the various strategic outsourcing approaches as a way to improve their performance. Equally, the study recommends similar studies be carried out in other industries across the country and in abroad to ascertain if the same results can be obtained and generalized.

REFERENCES

- Aldelsberger, H. H., Kinshuk. P., Pawloski, J. M., & Sampson, D. G. (2008). *Handbook on information technology for education and training* (2nd Ed.). Germany: Springer Verlag Heidelberg.
- Armstrong, M. (2012). *Handbook of human resource management practice* (12th Ed.). London: Kogan Page.
- Arnold, U. (2000). New dimensions of outsourcing: a combination of transaction cost economics and the core competencies concept. *European Journal of Purchasing & Supply Management*, 6(1), 23-29
- Arnold, U. (2000). New dimensions of outsourcing: a combination of transaction cost economics and the core competencies concept. *European Journal of Purchasing & Supply Management*, 6(1), 23-29
- Aubert, B. A., Baurivage, G., Creatoue, A., & Rivard, S. (2008). *Firm strategic profile and IT outsourcing*.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Deloitte. (2016). Competitive Index of 2016. Retrieved from <https://www2.deloitte.com/> Global Outsourcing Survey
- Gupta, S., Lehmann, D. R., & Stuart, J. A. (2004). Valuing customers. *Journal of marketing research*, 41(1), 7-18.
- Kamanga F.N. & Ismail, S.N. (2017) *Effects of outsourcing on organization performance in the Manufacturing sector in Kenya: a case of del monte Kenya limited*. European Journal of Logistics, Purchasing, and Supply Chain Management, Vol.5 No.5, pp.52-79.
- Kivuva, B. M. (2018). *Effects Of Outsourcing On Organizational Performance Of Oil Marketing Companies In Kenya*, KCA University, MBA Thesis, Nairobi.
- Kyusya, J. M. (2015). *Effect of Logistics Outsourcing on the operational performance of the shipping industry in Kenya*. University of Nairobi, MBA Thesis, Nairobi.
- Lacity, M.; Hirschheim, R.; and Willcocks, L. Realizing outsourcing expectations. *Information Systems Management*, 11, 4 (Fall 1994), 7–18
- Deloitte. (2016). *Competitive Index of 2016*. Retrieved from <https://www2.deloitte.com/> Global Outsourcing Survey
- Maghanga, F. M. (2011). *Logistics outsourcing practices among tea processing firms in Kericho County, Kenya* (Doctoral dissertation, University of Nairobi).

Project Management Institute (PMI). *A guide to the project management body of knowledge (PMBOK® guide)*, 3rd Ed. Newtown Square, PA: Project Management Institute

Saxena, K. B. C., & Bharadwaj, S. S. (2009). Managing business processes through outsourcing: a strategic partnering perspective. *Business Process Management Journal*.

Tesfaye, B. (2019). *Effect of Strategic Sourcing on Organizational Performance: The case of MOHA Soft*. University College of Commerce, MBA Thesis, Addis Ababa.