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Influence of Supplier Evaluation on Performance of Manufacturing Firms in Kenya: A Case of Tata Chemicals Magadi

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Abstract: The failure of suppliers to meet the deadlines and supply materials as and when required leads to huge losses in the supply chain operations. Studies have indicated that such supply chain issues can be solved by having a proper supplier evaluation because of the positive relationship between the two. Supplier evaluation has a direct correlation to the overall performance of the procurement process with 57.1% of the performance of the procurement process being directly determined by the supplier evaluation. The performance of the manufacturing sector in Kenya has experienced constant unsteady trends. Tata chemicals Magadi Limited is one of the companies that has recorded turbulence in its performance. Scholars argue that supplier evaluation has a direct correlation to the overall performance contributing 57.1% of the performance of the procurement process and hence the overall organizational performance. There was a need to establish influence of supplier evaluation on performance of manufacturing firms in Kenya with a focus on TATA chemicals Magadi. The study focused on suppliers' financial status, technical capability, capacity and culture evaluation. The target population for this research study was 112 respondents in management positions at Tata Chemical Magadi Limited Company comprising of directors, managers, assistant managers and supervisors. Yamane formula was used to sample 87 respondents. The study findings revealed that supplier evaluation in terms of the suppliers' financial status, technical capability, capacity and culture leads to a positive influence on performance. The study recommends an enhanced practices of the four evaluation criteria's among manufacturing firms in Kenya in order to improve their already deteriorating performance.

Keywords: *Supplier Financial Status, Suppliers Technical capability, Suppliers Capacity, Suppliers Culture, Performance*

Introduction

The manufacturing sector has high, yet untapped potential to contribute to employment and GDP growth. Industrial activity, concentrated around the three largest urban centres of Nairobi, Mombasa, and Kisumu is dominated by food-processing (Oyuke, 2012). After a long period of virtual stagnation, the Kenyan economy went through a strong phase over the period 2003-2007, as the rate of economic growth accelerated up to 7 per cent.

During the same period Total Factor Productivity (TFP) in manufacturing increased by as much as 20% (WB, 2007). The growth in manufacturing industry declined from 3.3 per cent in 2011 as compared to 4.4 per cent in the year 2010 mainly due to a challenging operating environment (KNBS, 2012). As an important sector in the overall economic growth, manufacturing sector requires in depth analysis at industry as well as firm level. According to KAM (2015) real growth in the manufacturing sector averaged 4.1% p.a. during 2006-2013, which is lower than the average annual growth in overall real GDP of 4.6%. As a result, the manufacturing sector's share in output has declined in recent years. The share of manufactured goods imported by EAC from Kenya declined from 9 per cent in 2009 to 7 per cent in 2013 (WB, 2014). Kenya was the largest exporter of various manufactured goods to the EAC. Further statistics from Kenya Association of Manufacturers have shown that firms announced plans to shut down their plants and shift operations to Egypt as a result of reduced profits (KAM, 2014). Cadbury Kenya closed down its manufacturing plant in Nairobi by the end of October 2014 (RoK, 2014). In the full-year to September 2013 results, Eveready's net profit fell 58.7 per cent to $493,237, from $784,783 the previous year. Its production capacity dropped to 50 million units annually, down from a previous high of 180 million per year mainly caused by contingencies (RoK, 2014). Tata Chemicals Magadi scaled down its operations by closing down its main factory (Kandie, 2014). Studies have indicated that such supply chain issues can be solved by having a proper supplier evaluation because of the positive relationship between the two (Lysons et al., 2008). For manufacturing firms to perform well it is important to select suppliers who are reliable and are able to meet the company's expectation in supplies requirement. There are certain qualities that should be included in the evaluation process. Dobler (2010) while quoting a definition of Professor Wilbur England of Harvard University stated that a good supplier should be one who is at all times honest and fair in his dealing with the customers, his own employees, and himself and one who has adequate plant facilities.

Supplier evaluation is a term used in business and refers to the process of evaluating and approving potential suppliers by quantitative assessment. The purpose of supplier evaluation is to ensure a portfolio of best in class suppliers is available for use. Supplier evaluation is also a process applied to current suppliers in order to measure and monitor their performance for the purposes of reducing costs, mitigating risk and driving continuous improvement (Gordon, 2008). Most experts or firms experienced in collecting supplier evaluation information prefer doing so using five-step processes for determining which to approve. Their processes often take the form of either a questionnaire or interview, sometimes even a site visit, and include evaluation of various aspects of the supplier's business including capacity, financials, quality assurance, organizational structure and processes and performance. Andy (2008) argues that supplier evaluation should be identified within that process of sourcing given that it is an important role for purchasing and supply due, to current requirement by many consumers and the increasing competition in the market, there must be a lot of emphasis on sourcing strategy and this depends on efficient supplier evaluation.

Statement of the Problem

The performance of the manufacturing sector in Kenya has been affected by use of obsolete supply chain management practices and technologies with poor state of physical infrastructure, limited research and development, poor institutional framework, and inadequate supply chain evaluation, technical, and procurement skills. Statistics from World Bank show that Kenyan manufacturers of large scale firms have registered stagnation and declining profits for the last five years due to a turbulent operating environment (WB, 2014). It is estimated that large manufacturing companies have lost 70 per cent of their market share in East Africa largely attributed to contingencies arising from among others improper management of supply chain (RoK, 2014).

Tata chemicals Magadi Limited is one of the companies that had more than 200 workers laid off due to performance challenges. In the year 2016, Tata Chemicals Magadi Limited recorded a decrease in the production of soda ash production from 3,710,531 tonnes in the year 2015 to 3,010,907 tonnes in the year 2016. The crushed refined soda and salt sales volume in FY 2015–16 were 15,191 tonnes against a previous value of 21,540 tonnes which shows a decrease of 42%. These unsteady trends can also be shown by a decrease in total sales by 18% from US$ 87.67 million in the year 2015 to US$ 74.1 million in the year 2016. In the year 2015, the company made a net loss of US$ 17.51 million (TCML, 2016). Selecting the most appropriate source of supplies has long been regarded as one of procurement's most important functions (Ogden *et al*., 2008). The failure of suppliers to meet the deadlines and supply materials as and when required leads to huge losses in the supply chain operations. Studies have indicated that such supply chain issues can be solved by having a proper supplier evaluation because of the positive relationship between the two (Lysons et al., 2008).

Specifically, Murigi (2014) argues that supplier evaluation has a direct correlation to the overall performance of the procurement process with 57.1% of the performance of the procurement process being directly determined by the supplier evaluation. The performance of the manufacturing sector in Kenya has experienced constant unsteady trends. Many large Manufacturing firms have relocated or restructured their operations, opting to serve the local market through importing from low-cost manufacturing areas such as Egypt therefore resulting in job losses (Nyabiage and Kapchanga, 2014) citing turbulent operating environment and high operating costs. Supply chain management practices contribute 50% to the profitability and performance of any organization (Choy, 2002). Based on the arguments by Murigi (2014); Lysons et al. (2008) that supplier evaluation has a direct correlation to the overall performance contributing 57.1% of the performance of the procurement process and hence the overall organizational performance, there was a need to establish the influence of supplier evaluation on performance of manufacturing firms in Kenya with a focus on Tata Chemicals Magadi Limited which has indicated poor performance.

Research Objectives

i. To establish the influence of suppliers' financial status evaluation on performance of manufacturing firms in Kenya.
ii. To assess the influence of suppliers technical capability evaluation on performance of manufacturing firms in Kenya.
iii. To determine the influence of suppliers capacity evaluation on performance of manufacturing firms in Kenya.
iv. To assess the influence of suppliers culture evaluation on performance of manufacturing firms in Kenya

Literature Review

Theoretical Review

Agency Theory

Agency Theory was published by Jensen and Meckling in 1976. It examines the buyer-supplier relationship using the principal-agent model in which the two parties are interdependent and may pursue different goals. The variables that influence the buyer-supplier relationship model are information systems, uncertainty of results, conflicting goals, duration of the relationship, adverse selection and moral hazard. These models work on the assumption that principals are aware of the nature of the task and the capabilities required (by the agent) to successfully accomplish that task (Sharma 1997). The theory anchors on supplier culture.

The supplier selected needs to demonstrate characteristics which are in the best interest of the principal such as supplier cultural fit characteristics like commitment, communication, continuous improvement, and process integration. When acting on behalf of the principal to deliver quality, then the agent will have performed their role without issues of agency problem.

The Lean Supplier Competence Model

The Lean Supplier Competence Model was developed by Marks (2007). The model evaluates the supplier against the five categories that supports the Lean techniques of Kaizen – continuous improvement. The Lean Supplier Competency Model explains how organizations interact in the five areas of competency where there is varying degrees of performance ultimately to achieve lean organizational operations. The five categories and `specific behaviors' of the supplier to be evaluated are quality (Part specification, reliability and consistency, Preventative and Predictive Maintenance, Corrective Action Process) ; Delivery (Lead Times, Delivery Performance, Location of Supplier) ; Financials (Buyer's Cost of Quality, Supplier's Cost of Quality, Supplier's Infrastructure and stability, Buyer's Order Quantity Requirements) ; Operational Excellence (Vision and Mission, benchmark, Supplier's Company Culture, Supplier's Commitment to Waste Elimination) ; General Performance Measures (Training, Design, support services, capacity, reporting) (Marks, 2007).

Grey System Theory

Grey system theory was first introduced in early 1980s by Deng (1982). The theory of Grey System considers the following factors in deciding on the best supplier; Existence of key factors important to the buyer, the numbers of factors are limited and countable and can be directly attributed to potential suppliers, in dependability of factors and factor expandability. The theory applies the principle of series comparability to generate a grey relation. An evaluation matrix may be developed to facilitate this process. The best supplier is selected by choosing a goal and weighting the values of all evaluation factors based on the characteristics of materials to be sourced based on demand patterns (Zou, 2008). In a supplier selection environment, this theory can be applied during evaluation of critical performance areas by the procuring entities.

Resource Based Theory

The resource based view theory perspective argues that sustained competitive advantage is generated by the unique bundle of resources at the core of the firm (Corner & Prahalad, 2007). In RBV model, resources are given the major role in helping companies to achieve higher organizational performance. There are two types of resources: tangible and intangible. The first assumption is that skills, capabilities and other resources that organizations possess differ from one company to another (Barney, 1991). The theory plays a critical role in underpinning independent variables of the study which are supplier financial status, capacity and technical capability. A firm with better financial ground, capacity and technical capability is expected to perform better than its competitors. Better performance is an indicator of sustainability and suppliers who are sustainable will ensure continuous production and supply thus leading to reduced shortages hence better firm performance.

Conceptual Framework

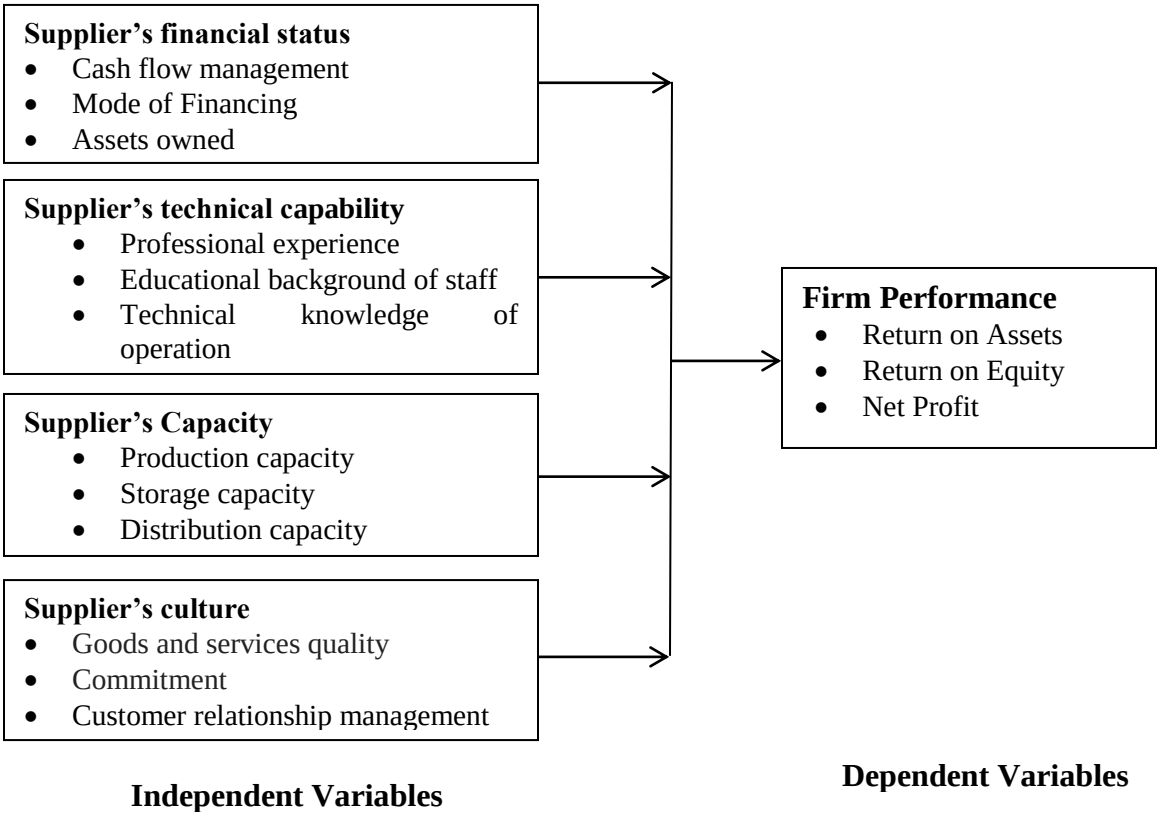

Figure 1: Conceptual Framework

Suppliers financial status

According to the Chartered Institute of Purchasing and Suppliers (2012) financial status and stability are measured by factors such as profitability, cash flows management, assets owned, debts owed among other factors. The cash status is important since selection of a supplier with poor financial conditions presents a number of dangers to the purchaser. Some of these dangers include; the supplier will go out of business, the suppliers with poor financial health will not have resources to invest in plant and equipment necessary for long-term performance improvements and the supplier may become so financially dependent on purchaser. Field and Meile (2008) argue that financial weakness seems to be an indication of underlying problems.

Supplier's technical capability (Competency)

Martin (2004) indicates that evaluation of suppliers acts as the initial stage in identifying suppliers with suitable controls and capability and that can supply the desired products or services. There is no standard evaluation method; there are several key factors that should be considered by procuring entities that seek to engage suppliers who will deliver their promise. According to Martin (2010) these supplier factors are; financial stability, quality of products, past performance and reliability.The organization receives inputs from the outside world which it then transforms into output and takes it back to the world for use. An organization will need suppliers to provide the input it requires.

The inputs could either be materials, information or even human capital. Lack of sufficient supplies will mean that the organization will not meet its operational capacity and thus will not be effective in its operations. Supplier selection is a time consuming process that evaluates suppliers on several criteria such as cost of production, raw material cost, quality assessment, organizational goal, profile of key staff, delivery system, facilities available.

Supplier's Capacity Evaluation

Supplier operational attributes of an enterprise play a significant role in determining its success and survival in the every changing business environment. Folinas, (2013) argued that the operational aspects of suppliers have been regarded as one of the important attributes that firms should take into account when making decisions on whether or not to enter into an agreement with a specific supplier. The supplier's operational factors include supplier's location or country of origin, shipment and delivery accuracy, supply chain experience, physical security, internal processes, social and environmental responsibilities and flexible production capacity, among others (Kazantzi, Gerogiannis & Anthopoulos, 2013). Folinas (2012) stated that a focus on supplier's internal processes could also prove beneficial to the buyer firm. Finding information about the internal processes of a supplier offers clear visibility to both security and controls that might have been put in place during the manufacturing process. The supplier's social and environmental responsibility initiatives (such as work environment and air quality) are also increasing becoming important in assessing the risk of a supply chain.

Supplier's Culture Evaluation

Cultural factors occupy an important part in supply chain management. The key element in ascertaining supplier cultural fit includes commitment, communication, continuous improvement, and process integration (Morgan, 2005; Whitfield & Farrell, 2010, Whitfield & Landeros, 2006). Barney and Clark (2007) explain that the culture of an organization strengthens the relationship between the suppliers and the organization since they understand the processes and procedures when seeking to deliver goods and services to a customer. A new supplier might experience challenges in supply of goods and services especially if the supplier is new to certain rules and procedures (Altaf, 2011). This makes it difficult for the supplier to deliver efficiently since they are more likely to experience challenges in the process of delivering services.

Research Methodology

The study adopted a descriptive research design. Descriptive study was chosen for its ability to offer a researcher a detailed profile and describe relevant aspects of phenomena which in turn lead to a better understanding of the influence of supplier selection on performance of manufacturing firms. The target population for this research study was 112 respondents in management positions at Tata Chemical Magadi Limited Company comprising of directors, managers, assistant managers and supervisors. The study used stratified random sampling technique to select the respondents. Yamane (1967) formula was used to calculate the sample size.

$n = N / 1+N (e)^2$,

Where: n = Required Sample size, N= Population Size e = Degree of accuracy (5%), expressed as a proportion (0.05); It is margin of error, substituting the values in the formula gives, $= 112 / 1+112(0.05)^2 = 87$. The study used primary data, which was collected through a structured questionnaire. The data collected was analyzed using descriptive and inferential analysis The multiple regression model was laid as below.

$Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3+ \beta_4X4+ \varepsilon$

Where: Y = Performance of manufacturing firms in Kenya, $X_{1=}$ Supplier financial status evaluation, X_2 = Supplier technical capability evaluation , X_3 = Supplier Capacity evaluation, X_4 = Supplier Culture evaluation, ε is error term, β_0 represents the constant, $\beta_{1,2,3,4}$ are regression coefficients

Results

Response Rate

The study targeted 87 respondents, 59 from transportation logistics and procurement, 12 from operations and administration, 5 from finance and accounts and 12 from quality monitoring departments. 87 questionnaires were therefore administered, out of the 87 questionnaires; the study received a response from 70 respondents, which indicates a response rate of 80.46%.

Demographic Characteristics

This section contained the bio data of the respondents. This included respondent's highest level of education, number of years in the manufacturing sector, number of years as staff in their departments and their age.

Table 1: Demographic Characteristics

Demographic Characteristics	Category	Percentage
Level of education	College	22%
	University	78%
Industry Experience	Less than I Year	12%
	1to 2 Years	18%
	3 to 5 Years	47%
	More than 5 Years	23%
Experience in the position	Less than I Year	20%
	1to 2 Years	25.7%
	3 to 5 Years	24.5%
	More than 5 Years	30%

Descriptive Results on Suppliers financial status

The first objective of the study was to establish the influence of suppliers' financial status evaluation on performance of manufacturing firms in Kenya. Supplier's financial status evaluation was measured using, cash flow management, mode of financing and assets owned. The study expected the respondents to indicate to what level they agreed with statements on supplier's financial status evaluation. The study sought to establish whether majority of the company's suppliers had little debts issues. The results presented in table 2 showed that the statement had a mean of 3.77 which implied that majority of the respondents agreed as shown by 32.9% and 30.0% of the respondents who indicated strongly agree and agree respectively. The finding implied that most of the company suppliers have little debts issues. The study similarly sought to find out whether the company normally engages suppliers with high assets turnover, the statement had a mean response of 3.96 which also indicated that most of the respondents agreed, those respondents who indicated agree were 40.0%, 34.3% strongly agreed, 15.7% were neutral, 7.1% disagreed and finally 2.9% strongly disagreed.

On whether the company normally monitors the financial health of its suppliers, 44.3% agreed, 32.9% strongly agreed, 15.7% were neutral, 4.3% strongly disagreed and 2.9% disagreed. This implies that manufacturing industry in Kenya always monitors the financial health of its suppliers. On the other hand, a total 74.3% of the respondents both strongly agreed and agreed that the company evaluates suppliers' capital turnover before engaging them, those who disagreed and strongly disagreed with the statement were a total of 11.5% while 14.3% of the respondents were neutral as shown by the results. Finally the study sought to find out whether the company evaluates suppliers cash flow management practices before engaging them, the results indicated that 35.9% and 32.9% of the respondents agreed and strongly agreed respectively with the statements. These finding implied that company evaluation suppliers' cash flow management practices plays a significant role in firm performance. The findings of this study concurs with those of Wangui (2014) who found out that financial stability of suppliers; past performance and reliability of suppliers have a significant effect on performance.

Table 2 Descriptive Results on Suppliers financial status

Statements	Strongly Disagree	Disagree	Moderately agree	Agree	Strongly agree	Mean	Std Dev
Majority of the company's suppliers have little debts issues	4.3%	10.0%	22.9%	30.0%	32.9%	3.77	1.14
The company normally engages suppliers with high assets turnover	2.9%	7.1%	15.7%	40.0%	34.3%	3.96	1.03
The company normally monitors the financial health of its suppliers	4.3%	2.9%	15.7%	44.3%	32.9%	3.99	1.00
The company evaluates suppliers capital turnover before engaging them	8.6%	2.9%	14.3%	40.0%	34.3%	3.89	1.17
The company evaluates suppliers cash flow management practices before engaging them	5.7%	2.9%	22.9%	35.7%	32.9%	3.87	1.09
Average						**3.89**	**1.09**

Descriptive Results on Suppliers technical capability

The second objective of the study was to assess the influence of suppliers' technical capability evaluation on performance of manufacturing firms in Kenya. The study analyzed to what extent the respondents agreed on statements regarding suppliers technical capacity such as professional experience, educational background of staff and technical knowledge of operation. The study sought to establish whether the company conducts an evaluation of whether there is an effective use of the Human Resource. The results presented in table 3 showed that the statement had a mean of 4.09, this shows that majority of the respondents agreed as shown by 41.4% and 35.7% of the respondents who indicated strongly agree and agree respectively, the finding further implied that 15.7% of respondents were neutral with the statement. The study similarly sought to find out whether the company conducts a supplier evaluation of qualifications of suppliers staff. The statement had a mean response of 3.83 which also indicated that most of the respondents agreed.

However those who agree were 45.7%, 27.1% were strongly agreed, 15.7% were neutral while 5.7% of the respondents both strongly disagreed and disagreed. This implied that the manufacturing company conducts a supplier evaluation of qualifications of suppliers' staff. On whether the company conducts a supplier evaluation of experience of suppliers' staff, 12.9% of the respondents were neutral while 4.3% disagreed, 4.3% strongly disagreed, 41.4% agreed and 37.1% strongly agreed. This implies that manufacturing company in Kenya conducts a supplier evaluation of experience of suppliers' staff. The study also sought to find out whether the company conducts an evaluation of whether there is worker representation and recognized trade unions, the statement had a mean of 4.03 which indicates that majority of respondents agreed as shown by 37.1% and 38.6% of the respondents who agreed and strongly agreed.

This implied that manufacturing company conducts an evaluation of whether there is worker representation and recognized trade unions. Further, 41.4% of the respondents strongly agreed that the company conducts an evaluation on the days lost through industrial disputes in each of the last five years, those who disagreed and strongly disagreed were a total of 14.3%, while 25.7% agreed with the statement and 18.6% of the respondents were neutral as shown by the results in table 4.3. The study sought to find out whether the company conducts an evaluation on worker attitudes to the organization, the results indicated that 37.1% and 32.9% of the respondents agreed and strongly agreed respectively with the statements. These finding implied that the company conducts an evaluation on worker attitudes to the organization. The findings of this study agrees with that by Mwikali and Kavale (2012) who argues that supplier selection should be done by experts who are knowledgeable and have expertise to conduct the exercise professionally since supplier selection is a process vulnerable to personal and political interference especially in the public sector.

Table 3 Descriptive Results on Suppliers technical capability

Statements	Strongly Disagree	Disagree	Moderately agree	Agree	Strongly agree	Mean	StdDev
The company conducts an evaluation of whether there is an effective use of the Human Resource	2.9%	4.3%	15.7%	35.7%	41.4%	4.09	1.00
The company conducts a supplier evaluation of qualifications of suppliers staff	5.7%	5.7%	15.7%	45.7%	27.1%	3.83	1.08
The company conducts a supplier evaluation of experience of supplier's staff	4.3%	4.3%	12.9%	41.4%	37.1%	4.03	1.04
The company conducts an evaluation of whether there is worker representation and recognized trade unions	2.9%	5.7%	15.7%	37.1%	38.6%	4.03	1.02
The company conducts an evaluation on the days lost through industrial disputes in each of the last five years	2.9%	11.4%	18.6%	25.7%	41.4%	3.91	1.15

Statements	Strongly Disagree	Disagree	Moderately agree	Agree	Strongly agree	Mean	StdDev
The company conducts an evaluation on worker attitudes to the organization	7.1%	4.3%	18.6%	37.1%	32.9%	3.84	1.15
Average						3.95	1.07

Descriptive Results on Suppliers Capacity

The third objective of the study sought to determine the influence of supplier's capacity evaluation on performance of manufacturing firms in Kenya. Some of the supplier's capacity evaluation attributes that the study analyzed include production capacity, storage capacity and distribution capacity. On whether there was maximum productive capacity in a normal working period, 40.0% of the respondents strongly agreed, 31.4% agreed, 15.4% were neutral, 11.4% strongly disagreed while 1.4% disagreed. The finding further implied that there was maximum productive capacity in a normal working period. The study sought to establish whether there were plans to expand the existing capacity to meet future increased demand. The results presented in table 4.5 showed that the statement had a mean of 3.91 which implied that majority of the respondents agreed as shown by 41.4% and 31.4% of the respondents indicated agree and strongly agree. The finding further implied that the company had plans to expand the existing capacity in order to meet future increased demand.

The study similarly sought to find out whether the percentage of capacity to be utilized if the potential supplier was awarded the business is enough. The statement had a mean response of 3.93 which also indicated that most of the respondents agreed with the statement. However, those who agreed were 32.9%, 40.0% strongly agreed, 12.9% were neutral, 8.6% disagreed and finally 5.7% strongly disagreed. On the other hand, 40.0% of the respondents agreed that the company has effective systems used for capacity planning. Those who disagreed and strongly disagreed were a total of 15.7% while 17.1% were neutral as shown by the results. The study also sought to find out whether the supplier has plans to overcome shortage of machinery, the results indicated that 38.6% and 28.6% of the respondents agreed and strongly agreed respectively with the statements. These finding implied that the supplier have plans to overcome shortages of machinery.

The study also sought to find out whether the supplier has a full range of machinery to make the required product, the statement had a mean of 3.79 which indicates that majority of respondents agreed as shown by 38.6% and 28.6% of the respondents who agreed and strongly agreed. This implied that most of the suppliers have a full range of machinery to make the required products. Further, a total of 72.9 % of the respondents strongly agreed and agreed that the suppliers' machines are modern and well maintained those who disagreed and strongly disagreed were a total of 15.6%, while 11.4% of the respondents were neutral as shown by the results in table 4. The study finally sought to find out whether the suppliers plant layout is satisfactory, the results indicated that 47.1% and 35.7% of the respondents agreed and strongly agreed respectively with the statements. These finding implied that the most suppliers' plant layout is satisfactory. The finding of this study corresponds to the study by Kirande and Rotich (2014) who recommended that organizations should choose suppliers who have the capacity to deliver.

Table 4 Descriptive Results on Suppliers Capacity

Statements	Strongly Disagree	Disagree	Moderately agree	Agree	Strongly agree	Mean	Std Dev
There is maximum productive capacity in a normal working period	11.4%	1.4%	15.7%	31.4%	40.0%	3.87	1.28
There are plans to expand the existing capacity to meet future increased demand	5.7%	1.4%	20.0%	41.4%	31.4%	3.91	1.05
The percentage of capacity to be utilized if the potential supplier was awarded the business is enough	5.7%	8.6%	12.9%	32.9%	40.0%	3.93	1.18
The company has effective systems used for capacity planning	11.4%	4.3%	17.1%	27.1%	40.0%	3.80	1.33
The supplier has plans to overcome shortage of machinery	4.3%	5.7%	10.0%	41.4%	38.6%	4.04	1.06
The supplier has a full range of machinery to make the required product	5.7%	5.7%	21.4%	38.6%	28.6%	3.79	1.10
The suppliers machines are modern and well maintained	11.4%	4.3%	11.4%	38.6%	34.3%	3.80	1.28
The suppliers plant layout is satisfactory	5.7%	0.0%	11.4%	47.1%	35.7%	4.07	1.00
Average						3.90	1.19

Descriptive Results on Suppliers Culture

The final objective of this study was to assess the influence of Suppliers culture evaluation on performance of manufacturing firms in Kenya. The study used goods and services quality commitment and customer relationship management. The study sought to establish whether the company evaluates the supplier's commitment culture, the statement had a mean response 3.91 as shown in table 4.6, which implied that majority of the respondents 42.9% agreed. These finding implied that manufacturing companies evaluates the suppliers' commitment culture. The study similarly sought to find out whether the company evaluates the supplier's communication systems. The statement had a mean response of 3.81 which also indicated that most of the respondents strongly agreed. This implied that manufacturing company evaluates the suppliers' communication systems. On whether the company evaluates the supplier's commitment to continuous improvement process, 12.9% were neutral, 4.3% disagreed, 4.3% strongly disagreed, 44.3% agreed and 34.3% strongly agreed. This implies that manufacturing companies evaluates the suppliers' commitment to continuous improvement process.

On the other hand, 5.7% of the respondents disagreed that the company evaluates the suppliers' process integration practices. Those who agreed and strongly agreed were a total of 75.8% as shown by the results in table.5.

This implies that manufacturing companies evaluates the suppliers' process integration practices. The study sought to find out whether the company evaluates the suppliers commitment to provision of quality, the results indicated that 28.6% and 44.4% of the respondents agreed and strongly agreed respectively with the statements. These finding implied that manufacturing companies evaluates the suppliers' commitment to provision of quality. Finally the study sought to find out whether the company evaluates the suppliers customer relationship management practices, the statement had a mean of 3.84 which indicated that majority of the respondents 32.9% and 35.7% agreed and strongly agreed. The finding of this study implies that manufacturing companies evaluates the suppliers' customer relationship management practices. The finding of this study corresponds to the study by Mondini, Machado and Scarpin (2014) who argues that lack of systematic evaluations of supplier performance can generate insecurity in the relationship, since historical actions taken by suppliers could serve as a criterion of choice in a future negotiation.

Table 5 Descriptive Results on Suppliers Culture

Statements	Strongly Disagree	Disagree	Moderately agree	Agree	Strongly agree	mean	Std Dev
The company evaluates the suppliers commitment culture	4.3%	5.7%	15.7%	42.9%	31.4%	3.91	1.05
The company evaluates the suppliers communication systems	7.1%	4.3%	20.0%	37.1%	31.4%	3.81	1.15
The company evaluates the suppliers commitment to continuous improvement process	4.3%	4.3%	12.9%	44.3%	34.3%	4.00	1.02
The company evaluates the suppliers process integration practices	5.7%	4.3%	14.3%	22.9%	52.9%	4.13	1.17
The company evaluates the suppliers commitment to provision of quality	2.9%	2.9%	21.4%	28.6%	44.3%	4.09	1.02
The company evaluates the suppliers customer relationship management practices	5.7%	8.6%	17.1%	32.9%	35.7%	3.84	1.18
Average						**3.96**	**1.10**

Performance of Tata Chemicals Limited

This section intended to establish the performance metrics for Tata chemical manufacturing limited the study used ROE, ROA, net profits and total sales for the last five years. The results are presented in figure 2 and 3.

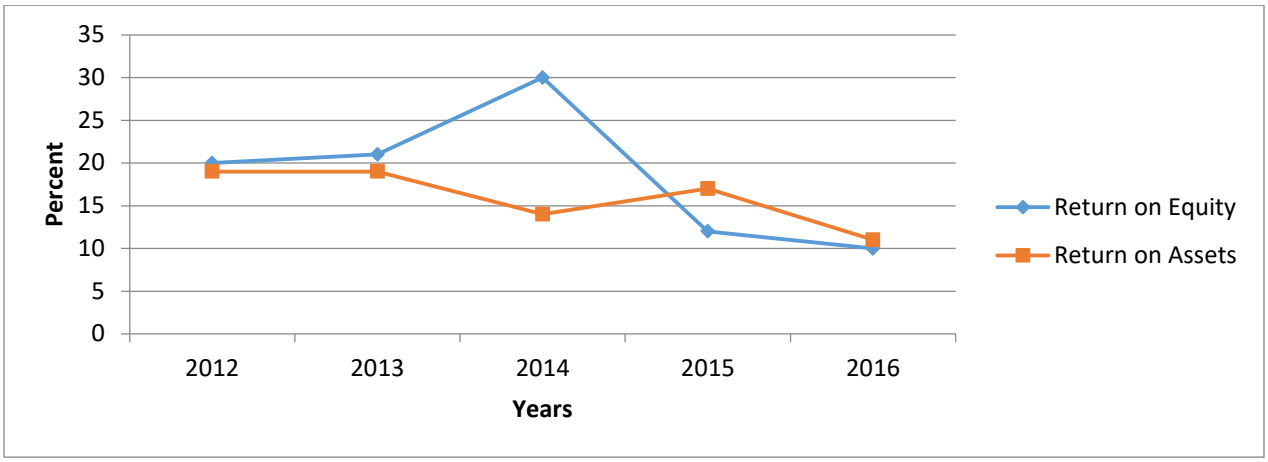

Figure 2 ROE and ROA for Tata chemical manufacturing

The findings implied that the percentage of return on equity increased steadily from 19% in the year 2012 to 21% in the year 2013 then sharp increase to 30% in the year 2014, this follows to sharp drop to 12% in 2015 then further drop to 10% in the year 2016. For return on assets the findings implied that the percentage of ROA was constant at 19% from the year 2012 to the year 2013 then a drop to 14% in the year 2014 followed by an increase to 17% in the year 2015 then a further drop to 11% in the year2016. These statistics agrees with those of Tata Chemicals Magadi Limited in the year 2016 that also recorded a decrease in the production of soda ash production from 3,710,531 tonnes in the year 2015 to 3,010,907 tonnes in the year 2016, hence the company laid off more than 200 workers.

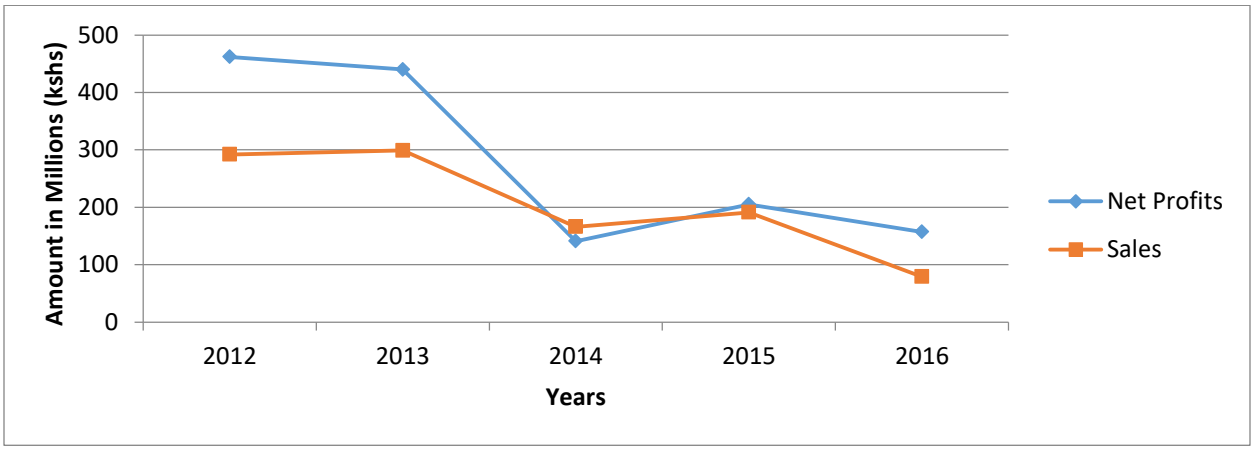

Figure 3 Net profit and Sales for Tata chemical manufacturing

The findings implied that the net profit decreased from 462 million in the year 2012 to 440 million in the year 2013 then further drop to 166 million in the year 2014, this follows with an increase to 205 million in 2015 then net profit further dropped to 157 million in the year 2016. For sales the findings indicated an increase in sales amount from 292 million in the year 2012 to 299 million in the year 2013 then a drop to 166 million in the year 2014 followed by an increase to 191 million in the year 2015 then a further drop in sales amount to 79 million

in the year2016. These unsteady trends was also shown by US statistics that indicated a decrease in total sales by 18% from US$ 87.67 million in the year 2015 to US$ 74.1 million in the year 2016. In the year 2015, the company made a net loss of US$ 17.51 million (TCML, 2016).

Correlation Results

To further ascertain the relationship between the independent and dependent variable, the study employed correlation analysis. The findings are presented in Table 6.

Table 6 Correlation Analysis Results

		Financial status	suppliers technical capacity	Supplier capacity	Supplier culture
Supplier Financial status	Pearson Correlation	1			
	Sig. (2-tailed)				
Supplier technical capability	Pearson Correlation	0.259*	1		
	Sig. (2-tailed)	0.031			
supplier capacity	Pearson Correlation	0.102	0.516*	1	
	Sig. (2-tailed)	0.403	0.000		
supplier culture	Pearson Correlation	-0.052	0.203	0.152	1
	Sig. (2-tailed)	0.669	0.092	0.21	
performance	Pearson Correlation	0.303*	0.64*	0.496*	0.365*
	Sig. (2-tailed)	0.011	0.000	0.000	0.002
	N	**70**	**70**	**70**	**70**

* Correlation is significant at the 0.05 level (2-tailed).

The study used correlation analysis to test the relationship between supplier financial status evaluation and performance of manufacturing companies in Kenya. The results findings in table 4.7 showed that suppliers' financial status evaluation had a positive and significant relationship with performance in manufacturing companies in Kenya. The value of Pearson correlation was r=0.303 with a p=0.011 which was significant at 0.05 significance level. The findings implied that an increase in suppliers' financial status evaluation would lead to an increase performance in manufacturing companies.

The findings are consistent with Pamela (2013) who carried a study on the determinants of supplier selection and evaluation in Pakistan Telecom industry and revealed that supplier financial capacity expertise is one of the key factors which determine the eventual performance of both the supplier and procurement performance. The study findings also revealed a high correlation between the financial capacity of supplier and ability of supplier to deliver good performance. The study result findings in in Table 6 also established a positive and significant

(r=0.064, p=0.000) association between supplier's technical capability evaluation and performance among manufacturing companies in Kenya. The findings implied that an increase in suppliers' technical capability evaluation would lead to an increase performance in manufacturing companies. The findings are consistent with Kiprotich and Okello who conducted a study to determine the effect of supplier evaluation on performance of procurement function of Public Universities and revealed that suppliers' quality commitment and suppliers' competence have significant effect on performance of procurement of procurement function of public universities campuses in Kericho County. The results findings in table 6 further showed that of suppliers' capacity evaluation had a positive and significant relationship with performance among manufacturing companies in Kenya. The value of Pearson correlation was r=0.496 with a p=0.000 which was significant at 0.05 significance level. The findings implied that an increase in suppliers' capacity evaluation would lead to an increase performance in manufacturing companies.

These findings are consistent with Kirande and Rotich (2014) who conducted a study on the determinants of public procurement performance in Kenyan Universities and established a positive correlation between supplier capacity evaluation and procurement performance. The findings in table 6 also showed that suppliers' culture evaluation had a positive and significant correlation with performance of manufacturing companies in Kenya. The value of Pearson correlation was r=0.365 with a p=0.002 which was significant at 0.05 significance level. The findings implied that an increase in suppliers' culture evaluation would lead to an increase performance in manufacturing companies. The findings are consistent with the findings of a study by Kitheka (2015) who focused on the effect of supplier quality management culture on organizational performance and revealed that effective supplier culture of quality management leads to a positive performance.

Regression Analysis Results

Regression analysis was adopted to test the nature of the relationship between independent variables and the dependent variable. The results for the model summary are presented in Table 7.

Table 7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.728	0.531	0.502	0.49624

a. Predictors: (Constant), Supplier culture evaluation, Suppliers' financial status evaluation, Supplier capacity evaluation, Suppliers technical capacity evaluation

The result showed that supplier culture evaluation, financial status evaluation, supplier capacity evaluation and suppliers technical capacity evaluation had a significant association with performance among manufacturing companies in Kenya (R=0.728). The results further revealed that suppliers' culture evaluation, suppliers' financial status evaluation, suppliers' capacity evaluation and suppliers' technical capacity evaluation jointly accounted for 53.1% of the variation in performance among manufacturing companies in Kenya.

This shows that the remaining percentage, that is, 46.9% of the variation in performance is explained by other factors other than the four. The model significance was tested using ANOVA and the findings are presented in Table 8.

Table 8 ANOVA (Model Significance)

Model	Sum of Squares	df	Mean Square	F	Sig.

	Regression	18.087	4	4.522	18.362	0.000
1	Residual	16.007	65	.246		
	Total	34.094	69			

The results of ANOVA in table 8 indicate that suppliers' culture evaluation, suppliers' financial status evaluation, suppliers' capacity evaluation and suppliers' technical capability evaluation were significant predictor variables of performance among manufacturing companies in Kenya. This was indicated by the F-statistics results (F=18.362, p=0.000) indicating that the model used to link the independent variables and dependent variable was statistically significant. The findings in Table 4.10 finally showed the model coefficients.

Table 9 Regression Coefficients

Predictor Variables	Beta (β)	Std. Error	t	Sig.
(Constant)	0.251	0.451	0.555	0.58
Suppliers' Financial status	0.122	0.059	2.067	0.043
Suppliers' technical capability	0.405	0.098	4.139	0.000
Suppliers' capacity	0.189	0.087	2.181	0.033
Suppliers' culture	0.222	0.076	2.904	0.005

The coefficient of suppliers' financial status evaluation was at (β=0.122, p=0.043, <0.05) and showed a positive statistically significant relationship between suppliers' financial status evaluation and firm performance. Hence the study findings in table 4.10 concluded that suppliers' financial status evaluation has a positive and significantly effect on performance among manufacturing companies in Kenya. The regression coefficient of 0.122 obtained in this case implies that a unit increase of the suppliers' financial status evaluation variable would lead to 0.122-unit increase in performance among manufacturing companies in Kenya. The coefficient of suppliers' technical capability evaluation was at (β=0.222, p=0.005, > 0.05) showed a positive statistically significant relationship between suppliers' technical capability evaluation and firm performance. The study findings in table 4.10 concluded that suppliers' technical capability evaluation significantly affect performance among manufacturing companies in Kenya. The regression coefficient of 0.222 obtained in this case implies that a unit increase of the suppliers' technical capability evaluation variable would lead to 0.222-unit increase in performance among manufacturing companies in Kenya. The findings are consistent with Pirzadeh, Hamid andSukati (2013) who carried a study on supplier's capabilities and its influence on competitive advantage in automotive industry and the study results confirmed that a positive correlation exists between suppliers' capabilities and competitive advantage.

The study findings also indicated that a positive and significant relationship that exists among the three supplier capabilities which are production, manufacturing, and research and development (R&D). The coefficient of suppliers' capacity evaluation was at (β=0.189, p=0.033, < 0.05) showed a positive statistically significant relationship between suppliers' capacity evaluation and firm performance. Hence the study findings in table 4.10 concluded that suppliers' capacity evaluation significantly affects performance among manufacturing companies in Kenya. The regression coefficient of 0.189 obtained in this case implies that a unit increase of the suppliers' capacity evaluation variable would lead to 0.189-unit increase performance among manufacturing companies in

Kenya. The coefficient of suppliers' culture evaluation was at (β=0.489, p=0.001, < 0.05) showed a statistically significant relationship between suppliers' culture evaluation and firm performance. Hence the study findings in table 4.10 concluded that suppliers' culture evaluation significantly affect performance among manufacturing companies in Kenya. The regression coefficient of 0.489 obtained in this case implies that a unit increase of the suppliers' culture evaluation variable would lead to a 0.489-unit increase in performance among manufacturing companies in Kenya. The findings are consistent with the findings of a study by Kitheka (2015) who focused on the effect of supplier quality management culture on organizational performance and revealed that effective supplier culture of quality management leads to a positive performance.

Conclusion

The study concluded that suppliers' financial status evaluation positively and significantly affect firm performance implying that an increase in suppliers financial status evaluation practices leads to a positive and significant effect on firm performance. An increase in suppliers' financial status evaluation practices such as evaluation of suppliers having debts issues, assets turnover, capital turnover before engaging them leads to a significant increase in performance among manufacturing firms in Kenya. A supplier with stability in finance leads to continuous supply. The study also concluded that suppliers' technical capability evaluation have a positive significant effect on firm performance. An increase in suppliers' technical capability evaluation practices such as the company conducting a supplier evaluation of qualifications of suppliers staff, the company conducting a supplier evaluation of experience of suppliers staff, the company conducting an evaluation of whether there is worker representation and recognized trade unions and the company conducting an evaluation on worker attitudes to the organisation leads to significant increase in performance among manufacturing firms in Kenya.

The study concluded that suppliers' capacity evaluation has a positive significant effect on firm performance. An increase in suppliers' capacity evaluation practices such as ensuring that suppliers have maximum productive capacity in a normal working period, ensuring there are plans to expand the existing capacity to meet future increased demand, ensuring the percentage of capacity to be utilized if the potential supplier was awarded the business is enough, ensuring the company has effective systems used for capacity planning and ensuring the supplier has plans to overcome shortage of machinery leads to a significant increase in performance of manufacturing firm in Kenya. The study further concluded that suppliers' culture evaluation positively and significantly affect firm performance implying that an increase in suppliers' culture evaluation practices such as company evaluating the suppliers' commitment culture, leads to a significant positive increase in performance among manufacturing firms in Kenya.

Recommendations of the Study

The study recommends the manufacturing firms to adopt the suppliers' technical capability evaluation practices such as the company conducting a supplier evaluation of qualifications of suppliers staff, the company conducting a supplier evaluation of experience of suppliers staff, the company conducting an evaluation of whether there is worker representation and recognized trade unions and the company conducting an evaluation on worker attitudes to the organization so as to improve their performance. There is a need for Tata Chemicals to invest in evaluation of suppliers' capacity that aims to ensure that suppliers have maximum productive capacity in a normal working period, ensuring there are plans to expand the existing capacity to meet future increased demand, ensuring the percentage of capacity to be utilized if the potential supplier was awarded the

business is enough, ensuring the company has effective systems used for capacity planning and ensuring the supplier has plans to overcome shortage of machinery. This can play a significant role in improving their performance. The study recommends that the managers of the Magadi Company to invest in supplier evaluation in order to achieve competitiveness and superior firm performance.

Conflict of Interest

No potential conflict of interest was reported by the authors.

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