The Effect of Transport Management on Organizational Performance Among Textile Manufacturing Firms in Kenya

Enock Gideon Musau
PhD. Supply Chain Candidate Jomo Kenyatta University of Agriculture and Technology, School of Entrepreneurship, Procurement and Management, Nairobi, Kenya

Professor. Gregory Namusonge
Professor Jomo Kenyatta University of Agriculture and Technology, School of Entrepreneurship, Procurement and Management, Nairobi, Kenya
Email: gsnamusonge@yahoo.co.uk

Dr. Elizabeth Nambuswa Makokha
Lecturer Jomo Kenyatta University of Agriculture and Technology, School of Entrepreneurship, Procurement and Management, Nairobi, Kenya
Email: enambuswa@gmail.com

Dr. John Ngeno
Lecturer Jomo Kenyatta University of Agriculture and Technology, School of Entrepreneurship, Procurement and Management, Nairobi, Kenya
Email: jkibyegon@yahoo.com

DOI: 10.6007/IJARBSS/v7-i11/3542 URL: http://dx.doi.org/10.6007/IJARBSS/v7-i11/3542

ABSTRACT
The purpose of the study was to analyze the effect of transport management on supply chain performance in terms of profitability, reliability, cost, responsiveness, flexibility and asset management efficiency of textile manufacturing firms in Kenya. The study was guided by the cooperative game theory. The study adopted the convergent parallel mixed methods design. The study targeted a total of 196 respondents drawn from employees of procurement departments and departmental heads of respective 15 textile manufacturing industries operating in Nairobi County. The sample size was therefore 139 respondents. Stratified and simple random sampling methods were used to select employees of procurement departments from their respective textile firms. Questionnaires and interview schedules were used to gather the data from primary sources. The study applied the use of both qualitative and quantitative data which was analyzed using statistical package for social sciences (SPSS Version 22). Inferential statistics using hierarchical multiple regression and Correlation analysis was applied to test the relationship between the variable and formulated hypothesis. The final analyzed
results were presented using tables, graphs and charts. The study concludes that transport management possess the potential of positively influencing supply chain performance of Textile firms and therefore recognizes the importance of transport management in the supply chain. Therefore in order to attain successful organizational performance the study recommends that the management of the textile firms have to put mechanisms in place for addressing transport such as vehicle scheduling, route planning, fleet management, and vehicle tracking for purposes of ensuring competitive edge against other market competitors thus improving superior performance of textile manufacturing firms.

Key words: Transport Management, Organizational Performance and Manufacturing Firms

Introduction
The textile manufacturing industry possess a great potential of developing Kenya to attain middle industrial economic status on textile industry (WBG, 2015). It has gained recognition for its potential to contribute towards the gross domestic product. Despite recognition of the potential the industry possesses, it continues to face challenges such as infiltration by corrupt cartels and use of obsolete technology (Tuikong & Kurgat, 2015). In order for the industry to strive to remain competitive through value creation, an understanding of the complexity and dynamism of its supply chain management has potential to provide the platform upon which the success or failure of this important industry could be judged. The transportation challenges faced by the textile firms in Kenya could for instance, be addressed if executives of such firms were made aware of transportation factors that could influence supply chain performance of textile industry and how the y could impact on overall performance of these firms.

Statement of the Problem
The complexity of the textile industrial chain is informed by the fact that it is a sector that is fragmented and heterogeneous and mainly dominated by small and micro enterprises. Many textile and apparel firms have as a consequence prioritized the incorporation of sustainability in the textile supply chains (Shen, Li, Dong & Perry, 2017). Moreover, it is is argued that the key to the development of the supply chain in the textile and apparel firms is sustainability. Consequently, literature has examined a number of innovations and issues such as sustainable competitiveness, product returns, and corporate social responsibility in relation to sustainability (Wang & Shen, 2017). The contemporary global textiles and apparel industry continues to experience other issues that require further investigation.

The global textile industry has seen the emergence of a number of trends that have tended to re-shape the organization of the industry. According to the World Trade Organization (WTO, 2016), the supply chain in the textile and apparel industry is taking on a more regional approach. Data from WTO presents a picture that countries from a given block tend to depend more on each other for textile imports and exports. For instance, it is reported that Asian countries have consolidated their efforts to build their own integrated textile and apparel supply chain. In this conundrum, 91.4% of textile imports in the region have origins from the region itself (WTO, 2016). Similarly, North, South and Central American countries also portray a
similar trend with approximately 90% of apparels from the region ending up in the United States and Canada. A similar picture is noted for EU countries with 81% of apparels exported from within the EU countries.

Recognition of the Potential of the textile industry to contribute to Kenya’s GDP has led to the leveraging of the country’s vision for industrialization on the industry (the Kenya Textile and Fashion Industry Report, 2015). Despite this recognition, challenges associated with supply chain management continue to inhibit performance of textile firms. The Kenyan textile sector has experienced a significant shift in policy environment both locally, regionally and even internationally. These policies have had varying impacts on the value chain in the textile industry over time. Perhaps the best moment reported for the performance of the Kenyan textile industry is during the import substitution period (1963-1986). It is argued that during this period, high taxes were levied to facilitate industrialization, and cotton farmers were provided with subsidies to support production (ACTIF, 2013). The consequences of these controls and incentives are that there was booming cotton and the sector was more robust (ACTIF, 2013).

The structural adjustment programme regime experienced between 1986 and the Mid 90s (ACTIF, 2013) heralded a paradigm shift that saw the IMF and World Bank adopt an economic model a kin to private ownership leading to competitive markets in many countries with a view to maintaining standards. During this period, policy frameworks were more aligned to the concepts of liberalization, privatization and export promotion which saw a decline in government and donor support to the textile sector. This according to the ACTIF report (2013) was the inception of the decline of the cotton /textile sector which was being displaced by second hand textiles that had been earmarked for the Great Lakes region.

The changing operational environment meant that the value chain was thrown into confusion and was largely characterized by lack of guidelines for cotton/textile management, withdrawal of support from the Government, absence of lobbyists to agitate for governance structure, lack of strategy in position and lack of competitiveness (ACTIF, 2013). High cost of production, stiff competition and corruption have also been found to be key issues bedeviling textile supply chains (Tuigong and Kurgat, 2015). Tuigong and Kipkurgat contend that human resources are a key challenge facing textile firms in Kenya. They cite financial constraints as the reason for hiring cheap but unskilled labour leading to poor quality of produce.

Moreover, it is noted that use of obsolete technology puts Kenyan textile firms in a tight position when it comes to competing for the sourcing of raw materials and exportation of finished products (Tuigonig & Kipkurgat, 2015). Corruption is also recognized as a major challenge facing the Kenyan textile industry. It is argued for instance, that corrupt cartels import textile products while evading taxation and also flood the market with second hand clothes bringing unfair competition (Tuigong & Kipkurgat, 2015). The Kenya Textile and Fashion Industry Report, 2015).
Industry Report (2016), advices that effective compliances with local and international standards require being conscientious and use of good practices.

Several studies have been conducted in the local context interrogating determinants of supply chain performance in diverse sectors. Among sectors that have consistently pointed towards ICT, infrastructure, customer–supplier relationships, inventory management, and transport management as determinants of their supply chains include Agriculture (Obura, Ombok & Omugah, 2017); Energy (Muthini, et al., 2017; Osoro et al., 2016; Ideet & Wanyoike, 2012); Banking (Seghete, 2016); Public institutions (Weeks & Namusonge, 2016; Kanda & Iravo, 2015, Karimi & Namusonge, 2014); and Manufacturing (Barasa, Namusonge & Iravo, 2015; Wabwile & Namusonge, 2015; Waithaka et al., 2012).

In spite of the large number of studies conducted in the Kenyan context, none of them as reviewed specifically focus on finding out how supply chain determinants impact on organizational performance in the context of textile firms which as highlighted are considered central to the realization of Kenya’s vision 2030. Explaining performance in textile firms requires that key supply chain factors be identified and taken care of as best as could be possible. The present study therefore sought to establish determinants of supply chain that affect performance of textile firms operating in Kenya.

Objective of the study
The objective of this study was to evaluate the effect of transport management on supply chain performance among textile firms in Kenya.

Hypothesis
Although much literature exists regarding transport and logistics management and its benefits, most studies focus mainly on the logistics component. Besides, no literature exists showing how transport management for instance directly impacts on the performance of supply chain of firms in the textile sector. In the absence of such studies, the following postulation was made.

H01: Transport management has no significant effect on performance of textile manufacturing firms in Kenya.

LITERATURE REVIEW
The study was guided by game theory.

Game theory
Inventory control has remained a critical problem in decisions that involve supplier management. Application of Game theory and in particular, the cooperative game has been shown to play a significant role in transportation logistics and in managing centralized inventory systems that has ultimately led to reduction in costs and an improvement in customer level service (Fiestras-Janeiro, Garcia-Jurado, Meca & Mosquera, 2011). Choice of game theory was
therefore multifaceted in terms of situating both inventory management as well as transport management.

Game theory is defined as the formal study of decision-making where several players are required to make choices that potentially affect the interests of the opposing players; and is deemed as the official study of conflict and cooperation (Xu, Pan & Ballot, 2013). Game theoretic concepts apply whenever the actions of several agents are interdependent (Dai & Chen, 2012). These agents may be individuals, groups, firms, or any combination of these. The concepts of game theory provide a language to formulate structure, analyze, and understand strategic scenarios such as those required for controlling inventories (Dai & Chen, 2012).

According to Xu, et al., (2013), game theory is divided into two main approaches: the non-cooperative and the cooperative game theory. The cooperative game theory is applied to cases where players have potential to achieve more benefit by cooperating than by being on their own (Xu, et al., & 2013). Mateo and Aghezzaf (2013) argue that cooperative games bring together several players looking to maximize a win-win situation by agreeing to coordinate strategies and share pay offs. The point is that decision makers coalesce and make binding agreements to jointly strategize, bring individual payoffs into single pools, and share total payoffs in a mutually agreeable manner. Analogous to supply chain distribution channel, Mateo and Aghezzaf (2013) point out that managers of different sales-points in a supply chain willing to reduce inventory to carry, can do so by engaging in such a cooperative game. They can decide to cooperate and trade the product at a price fair to both of them. Game theory in this scenario would require that clusters of sales-points willing to cooperate, fair prices to trade and allowable inventory to carry be made consistent with demands of specific supply chains.

The choice of Game theory was also made taking cognizance of its role in logistics management. Slimani and Achchab (2014) agree that due to its ability to be used to analyze and solve situations where opposing player’s decisions affect each other payoffs, game theory provides the avenue upon which analysis of transportation and inventory could be maximized. Consequently, in the supply chain for instance, game theory offers the basis on which a retailer in demand of a final product cooperates with a supplier of raw materials for purposes of managing the transport function. The gain sharing issue was intensively investigated in the cooperative game theory; the cooperative game theory is therefore posited as ideal in examining logistics and inventory in organizations. Today cooperation is becoming more and more crucial to improve the global performance of logistics (Drechsel & Kimms, 2010).

In game theory, horizontal cooperation in logistics was proved efficient to reduce global cost and improve the performance level (Cruijssen, Cools, & Dullaert, 2007); (Pan, Ballot, Fontane & Hakimi, 2012). However, despite these advantages, horizontal cooperation is not considerably employed in logistics (Muir, 2010). One main obstacle in the implementation of horizontal cooperation is the absence of an appropriate cooperation decision making model (Xu, et al., 2013). In this study cooperative-game-theoretic approach was used to facilitate the decision
making in measuring logistics efficiency on transportation and influence attributed to firm performance.

The cooperative game theory made attempts to establish how players interacted with each other in a cooperative relationship, and provided many approaches to fair profit allocation and stable coalition formation, which were important components in the cooperation model (Dror, Hartman & Chang, 2012). This form of cooperation took place between companies operating at the same level of market and it requested them to share private information and resources in logistics (Drechsel & Kimms, 2010). The aim was to improve the efficiency in transportation logistics; for example, reduce logistics cost (Cruijssen, et al., 2007) or reduce environmental impact caused by transportation activities (Pan et al., 2011). The theory focused on transportation cost aspect.

It was proved in the literatures that the horizontal cooperation in logistics could result in a 10% or higher percentage of cost reduction in transportation (Groothed, et al., 2005; Ergun et al., 2007; Pan et al., 2011). Considering the size of manufacturing industry in Kenya, it was a huge stake. The study on transportation management and manufacturing firm performance in this study was guided by the concepts postulated by the game theory. This theory was deemed relevant as it portends an improvement in transport efficiency particularly from a transportation cost perspective which explains why the choice of the theory for the present study was prudent.

CONCEPTUAL FRAMEWORK

Transport management was conceptualized as having a direct effect on performance of textile firms. The basis of considering this variable was that many studies particularly in the African context pointing towards infrastructural challenges in the supply chain. The Regional Economic Outlook (REO, 2015) clearly isolates transportation as the main determinant of supply chain performance in the sub-Saharan Africa. The impact of transportation on performance is also highlighted in several other studies (Osoro et al., 2016; Badenhorst-Weiss & Waugh, 2015; Njoku & Kalu, 2015; Omondi & Namusonge, 2015; Ambe, 2012). It was therefore prudent to conceptualize similar impacts of transportation on performance in the textile context.
The need for materials movement along a supply chain puts transport management at the core of logistics. A number of studies have consequently been conducted locally with a view of exploring the role of transport management in supply chain management. Kithiia (2015) conducted a study on Maersk Kenya Limited, a logistics firm to examine effects electronic logistics has on the performance of logistics firms. Using a sample of 75 individuals drawn from 107 employees of the firm, the study revealed that e-logistics influenced performance of logistic firms positively.

Muchori (2015) analyzed the effect of congestion in the road traffic on freight logistics efficiency at the port of Mombasa. Building on the infrastructural pressure on the road from Nairobi to Mombasa which has continued to put strain logistics operations at the port, the study employed a descriptive survey design and used a sample size of 150 respondents from a possible 10450 employees. The correlation results revealed that traffic congestion had a positive correlation with transport cost. Consequently, traffic congestion impacted negatively on efficiency of freight logistics.

Mukolwe and Wanyoike (2015) assessed how management practices used in logistics affect operational efficiency in Mumias Sugar Company. Using descriptive and inferential statistics, the study revealed among other findings that transport management and the practices used for physical distribution are synonymous with the flow of raw materials and goods that is cost effective which impacts positively on operational efficiency.

Mwangangi (2016) examined the influence logistic management has on performance of manufacturing firms. The study used both primary and secondary data drawn from employees.
of the firms and published and unpublished records. Using multiple regressions analysis, the study revealed that transport management by use of transport management systems was a significant predictor of firm performance.

Gitahi and Ogollah (2014) investigated how practices used to manage fleet influence service delivery to refugees under the UNHCR Kenya programme. The study builds on the premise that transportation is central to logistics. The study used the descriptive research design and targeted 390 employees. From the sample of 117 who participated in the study, it was concluded that the rate of fuel consumption on tracking, fuel monitoring, fuel sourcing, fuel allocation on a day to day basis, and the rate at which fuel usage is monitored influence delivery of services to refugees in the UNHCR programme in Kenya.

Ndubi, Iravo and Onchiri (2016) examined the effect variability in lead times has on the performance of inbound logistics at Safaricom Limited. Using linear regression model, the study identified lead times in terms of production, shipping, the TAT time for customs brokerage, and the velocity for inspection of goods as having direct and significant effects on the performance of inbound logistics measured in terms of delivery time, cost and quantity. Although much literature exists regarding transport and logistics management and its benefits, most studies focus mainly on the logistics component. Besides, no literature exists showing how transport management for instance directly impacts on the performance of supply chain of firms in the textile sector.

**Organizational Performance**

Organizational performance remains a central theme in contemporary literature. Scholars continue to ventilate on various factors that inform performance in diverse organizations. Awino (2015) for instance focuses on examining the role organizational structure plays in the performance of large firms in the manufacturing sector in Kenya. Her study uses the cross-sectional survey of large manufacturing firms to show that non-financial measures such as customer satisfaction, internal firm processes and firm image influences performance among large manufacturing firms. On the other hand, Shisia, Sang, Matoke and Omwario (2014) contend that strategic innovation has potential to impact positively on the performance of public universities in Kenya.

The influence of human capital on organizational performance has also been investigated. Odhon’g and Omolo (2015) focused on analyzing the effect the investment in human capital has on organizational performance from a pharmaceutical perspective. Using the inferential tests of association, the study revealed that organizational performance was associated with investment in quality, relevance, and reliability in the human capital. Kinyua-Njuguna, Munyoki and Kiberia (2014) while focusing on internal organizational environment in the context of community-based organizations specializing in HIV and AIDS, established that the organization’s internal environment tends to impact on relevance, efficiency and effectiveness of organizations.

Potential factors that impact on organizational performance have also received attention from a corporate governance perspective. Mbalwa, Kombo, Chepkoech, Koech and Shavulimo (2014) assessed the effect of corporate governance in Sugar manufacturing firms on their
performance. The study used manufacturing firms drawn from Western Kenya and correlation analysis to show that corporate governance practices have positive correlations with organizational performance. Specific practices that come to focus here include characteristics of the board; top management, and stakeholder communication. Kitonga Bichanga and Muema (2016) identify strategic leadership variables such as human capital, ethical practices, and strategic direction as relating positively with organizational performance in the case of the not for profit organizations.

On the other hand, Kariuki and Murimi (2015) investigated employee empowerment and how it impacts on organizational performance. The study explored the case Tata chemicals in Magadi Kenya and found out that employee empowerment through information sharing and training tended to have a moderate impact on organizational performance. Christopher (2005 as cited in Chimwani, Iravo, and Tirimba, 2014) contends that in order for any responsive organization to meet its desired procurement goals such as the transformation of: functions to processes; inventory to information; products to customers; profit to performance and transactions to relations, there is need to continuously monitor the key measures of procurement performance. It is argued that despite the wide array of measures that can be deployed to measure procurement performance, the success of the measurement relies basically on a few indicators which can be determined by use of the balanced score card (Chimwani et al., 2014). The balanced scorecard takes cognizance of the procurement goals which are often a mix of the organizations internal measures for managing resource utilization and total quality measures expected by customers.

Moreover, observations have been made to the effect that adherence to supply chain practices has potential to reduce operational costs and result in outputs that match organizational goals (Muma et al., 2014; Osuga et al, 2015). More evidence on the importance of supply chain practices is attributed to Kimotho (2014) who argues that satisfactory procurement performance has a direct impact on firm profitability, supplies, quality and competitiveness. There is no doubt therefore that use of appropriate supply chain practices remains the panacea to challenges facing the textile industry in Kenya. However, in the event of scanty evidence from a textile industry perspective, the present study yearned to identify supply chain determinants that could best predict firm performance in this important sector.

RESEARCH METHODOLOGY
The study adapted the convergent parallel mixed methods design. Under this design, the qualitative descriptive method was combined with the quantitative explanatory method to first and foremost describe the conceptualized supply chain determinants and performance criteria used by textile firms and, thereafter to try and explain the cause-effect relationship between supply chain determinants and procurement performance. The choice of this design was informed by the desire to make an exhaustive analysis of the problem by merging qualitative and quantitative data (Creswell, 2013). The population for the present study included the entire set of 15 firms dealing in textile and apparel production, the procurement departments and staff working in those departments. Stratified and simple random sampling methods were used to select employees of procurement departments from the respective textile firms and the final
sample therefore consisted of 124 procurement department employees and 15 heads of procurement department. Both primary and secondary data was used for the study. Questionnaires and interview schedules were designed to collect primary data for purposes of the study in line with the two sets of study units identified, and consistent with the mixed methods research design settled upon. Secondary data comprised literature related to supply chain management and recognized publications. Data was first prepared and cleaned using descriptive statistics that included means, standard deviations, skewness and kurtosis, and standardized scores.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The study targeted 184 procurement department employees and 15 heads of department. The need to examine response rate was based on the urge to ascertain whether the proportion of response was representative of the targeted population and could inform decisions on the effect of supply chain drivers on procurement performance. Out of a sample of 139 made up of 124 employees and 15 heads of department, 106 employees and 9 heads of departments participated in the study. The overall response rate was therefore 82.7% distributed as shown in Table 4.1. On the basis of recommendations by Draugalis, Coons and Plaza (2008) indicating that response rates approximately 60% should be the goal of researchers, this response rate was found to be suitable for purposes of the study.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Category of respondent</th>
<th>Expected sample size</th>
<th>No responding</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement Employee</td>
<td>124</td>
<td>106</td>
<td>85.4</td>
</tr>
<tr>
<td>Head of procurement department</td>
<td>15</td>
<td>9</td>
<td>60.0</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>115</td>
<td>82.7</td>
</tr>
</tbody>
</table>

Transport Management

This variable sought to establish the effect of transport management within the firm on supply chain performance. Prior to establishing the intended effect, data was first explored to understand the nature of transport management mechanisms used in textile firms in Nairobi County (Tabachnick & Fidell, 2013). Means and Standard deviations were used to explore responses from employee questionnaire.

A total of eight items were used to explore mechanisms used for the management of transport from procurement department employees’ perspective. Results of this exploration are presented in Table 4.7. The overall mean response score among employees with regard to the transport management mechanisms used in textile firms in Nairobi County was 4.28. This value
lies in the interval $3.5 \leq R < 4.5$ which implies that employees appeared to show agreement with use of various mechanisms in the firms to manage transportation. Moreover, the overall standard deviation ($SD=0.641$) was rather small which is an indication of consistency in agreements among the respondents.

More particularly, employees tended to agree that the following transport management mechanisms were being used in the firms. Firms have established sufficient transportation units ($M = 4.40, SD = 0.611$); improved vehicle scheduling ($M = 4.23, SD = 0.670$); thorough route planning ($M = 4.25, SD = 0.619$); defined disposal policy ($M = 4.12, SD = 0.645$); fleet management system ($M = 4.26, SD = 0.633$), installation of tracking system ($M = 4.30, SD = 0.634$). Respondents also agreed that textile firms undertake preventive maintenance ($M = 4.34, SD = 0.659$), and have also put in place vehicle inspection schedules ($M = 4.34, SD = 0.659$).

These results imply that textile firms operating in the Nairobi County recognize the important effective transport management play towards increasing operational efficiency of supply chains. In response to this, most of those firms have put several mechanisms in place to ensure that there is appropriate transport management within the supply chain processes. These results showing the seriousness textile firms in Nairobi County are putting on transport management resonates well with other studies that have intonated that endeavors of managing transport allows end-to-end network visibility that enables centralization of production operations to areas that experience lower costs, without compromising levels of customer service. A responsive transportation network begins with end-to-end network visibility (Mukolwe & Wanyoike, 2015).

Moreover, the results from the employees’ questionnaire confirm previous positions that have been advanced with regards to the utility of transport management in supply chain processes. Such positions include: influencing performance of logistic firms (Kithiia, 2015); impacting negatively on efficiency of freight logistics (Muchori, 2015); leading to operational efficiency (Mukolwe & Wanyoike, 2015); and predicting performance (Mwangangi, 2016).

<table>
<thead>
<tr>
<th>Table 4.7: Transport Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statements</td>
</tr>
<tr>
<td>1. There are sufficient transportation units in the firm</td>
</tr>
<tr>
<td>2. Current vehicle scheduling practices have improved transportation of materials and produce</td>
</tr>
<tr>
<td>3. The firm conducts thorough route planning</td>
</tr>
<tr>
<td>4. The firm has in place a clearly defined disposal policy</td>
</tr>
<tr>
<td>5. The firm has a system in place for managing its fleet</td>
</tr>
<tr>
<td>6. The firm has installed a tracking system</td>
</tr>
<tr>
<td>7. The firm undertakes preventive maintenance</td>
</tr>
<tr>
<td>8. The firm has a vehicle inspection schedule</td>
</tr>
</tbody>
</table>

Overall response: $M=4.28; SD=.641$
Tests of Hypothesis

Descriptive analysis of the procurement department employees’ and heads responses revealed that supply chain determinants of performance appeared to directly impact on firm performance as conceptualized in the present study. It was therefore necessary to confirm existence of causal relationships between the individual determinants and firm performance by testing the hypothesis formulated in this study. Hierarchical regression analysis was used to test the hypothesis so as to control for the effects of the background characteristics of the participating employees (Tabachnick & Fiddell, 2013). Under this approach, firm performance was first regressed on background characteristics and then on the identified determinants. The change in the coefficient of determination ($R^2$-change) was then examined to isolate the influence of supply chain drivers from those of background characteristics.

Model Summary Results

The model summary statistics displayed in Table 4.20 show that when background characteristics were entered in model 1, the R-square was 0.046 implying that variation in background characteristics contributed only 4.6% of the variation in performance. However when the conceptualized determinants were entered in model 2, the coefficient of determination (R square) increased up to 0.828. The associated R-square change was 0.782 which implies that variation in the determinants contributed 78.2% of the variation in performance.

Table 4.20 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.215&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.046</td>
<td>.009</td>
<td>.52547</td>
<td>.046</td>
<td>1.227</td>
<td>4</td>
<td>101</td>
<td>.304</td>
</tr>
<tr>
<td>2</td>
<td>.910&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.828</td>
<td>.812</td>
<td>.22867</td>
<td>.782</td>
<td>87.465</td>
<td>5</td>
<td>96</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Experience in department, Gender of Respondent, Age of Respondent, Level of Education

b. Predictors: (Constant), Experience in department, Gender of Respondent, Age of Respondent, Level of Education, Warehouse Management, Transport Management, Inventory Management, Supply Chain Information Systems, Customer-Supplier Relationship
Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.591</td>
<td>.267</td>
</tr>
<tr>
<td>Gender of Respondent</td>
<td>.021</td>
<td>.113</td>
</tr>
<tr>
<td>Level of Education</td>
<td>.042</td>
<td>.045</td>
</tr>
<tr>
<td>Age of Respondent</td>
<td>-.132</td>
<td>.068</td>
</tr>
<tr>
<td>Experience in department</td>
<td>-.026</td>
<td>.055</td>
</tr>
<tr>
<td>2 (Constant)</td>
<td>.366</td>
<td>.247</td>
</tr>
<tr>
<td>Gender of Respondent</td>
<td>-.002</td>
<td>.050</td>
</tr>
<tr>
<td>Level of Education</td>
<td>-.004</td>
<td>.020</td>
</tr>
<tr>
<td>Age of Respondent</td>
<td>.019</td>
<td>.032</td>
</tr>
<tr>
<td>Transport Management</td>
<td>.093</td>
<td>.043</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance

CONCLUSION AND RECOMMENDATIONS

From the study it is concluded that transport management have a positive significant effect on organizational performance of textile manufacturing firms in Kenya. In view of this; management of textile firms in Nairobi County have taken steps to put in place adequate mechanisms to address transportation of supplies and products so as to enhance performance of the entire supply chain system and thus improved organizational performance. They have adopted vehicle scheduling, route planning, fleet management, and vehicle tracking for purposes of improved performance. Mechanisms for addressing transport are commendable and should be maintained and other systems that can improve transport management are further introduced. From the study it could be concluded that the textile manufacturing firms in Kenya strive to enhance their organizational performance by ensuring profitability, reliability, cost, responsiveness, flexibility and asset management. The current study was restricted to textile firms in Nairobi County. The findings may therefore have been influenced by the context in which this study was conducted. The researcher therefore recommends that similar studies should be replicated in textile firms in other regions so as to improve the external validity of the findings.

ACKNOWLEDGEMENT

I thank our almighty God for enabling me to reach this far and complete my research study successfully. I would like also to extend my sincere appreciation to my Supervisors Prof. Gregory Namusonge, Dr. Elizabeth Namuswa and Dr. John Ngeno with whose guidance, support and encouragement this research thesis has been completed. Their professional guidance, insightful
suggestions and immense cooperation was of immeasurable benefit in this study. I am humbled by the selfless support of my family members for being respectful to and patient with me while pre-occupied with the entire Doctorate course. I wish to thank the respondents for their positive attitude which enabled the collection of relevant data to facilitate this report. Finally, I would like to recognize the contribution of my classmates for their valuable views and opinions throughout this study period.

References


International Journal of Economics, Commerce and Management United Kingdom, 3 (6), 1134-1156.


