

# Influence of Logistics Communication on Performance of Construction Firms in Kenya

## A Case Study of Zakhem Construction Kenya Limited

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### Abstract

Construction industries in Kenya are considered to be the driving force to the country's social economic development goals. This is in line with the country's vision 2030 blueprint that recognizes construction as a key pillar towards a sustainable development of the country. In the recent past, the country has immensely benefited through construction related activities and this phenomenon have created job opportunities, seamless logistics systems as well as capacity building in all spheres of the economy. Despite considerable positive contribution of construction firms in the country, cases of project delays have escalated and this has created time overruns and loss of money. This study focused on the influence of logistics communication on performance of construction firms in Kenya. A descriptive research survey was used as a design to help the researcher plan and organize the applicable methodological aspects of the study. This in return created in-depth analysis of the data. The target population for the study was 150 employees working at Zakhem construction Kenya limited. The researcher used stratified random sampling method since the target population was heterogeneous. To this extent therefore, the sample size was derived using Slovin's formula  $n = \frac{N}{1 + N(e^2)}$ . A five-point Likert scale questionnaire was administered to the sample chosen. Both descriptive and inferential analysis was done using SPSS version 22. The study found out that logistics communication have a strong correlation and significantly influence the performance of Zakhem construction Kenya limited with  $R=0.569$ ,  $P=0.000 < 0.05$ . This denoted that when the firm applies logistics communication the performance improves positively prompting the firm to make positive strides in the business. The study also showed that, a unit improvement in logistics communication would lead to a 0.784 increase in the performance of Zakhem construction Kenya limited. The study concludes that logistics communication creates explicit cooperation to all the parties involved in transactional activities of construction firms in Kenya. The study recommends that the company should embrace vibrant communication to ensure smooth information flow to all logistics functions in the organization. Further, the study recommends the firm to invest heavily on information and communication infrastructure systems so as to enhance information sharing with other stakeholders of the company. Lastly, the study recommends that the firm should devise an effective logistics communication plan in order to have a clear communication structure that all employees ought to follow.

**Keywords:** Logistics communication, Performance, Information and Communication Technology, Competitive Advantage, Supply Chain Management.

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### INTRODUCTION

Logistics communication plays a vital role in success of the holistic logistics management spectrum. The role of logistics communication is to create a synergy among various stakeholders involved in transactional activities of the organizations. This paves way to seamless flow of activities hence high degree of cost effectiveness as well as customer responsiveness. Just like other industries in the wider market, construction industry benefits immensely from a well-structured logistics communication network (Choudhary, M., et al, 2013). In the recent past, logistics communication has gained impetus because of advancement of information and communication technology (ICT). According to Opiyo (2017) information and communication technology provides a distinct avenue for information trail in most of the organizations. This ensures high integrity in all activities in line with logistics. Further, ICT plays an integral role in the records management since all the necessary logistics documentations are availed in the system. In supply chain management (SCM) function, one of the definitive metric of performance is the degree of customer satisfaction. In cognizant of this revelation, logistics communication is a prerequisite to achievement of competitive advantage in most of the industries in the market (Azevedo, S. et al, 2008).

### LOGISTICS COMMUNICATION AND PERFORMANCE OF ZAKHEM CONSTRUCTION KENYA LIMITED

Zakhem Construction (Kenya) Limited is one of the leading construction firms in Kenya. Over the years the company has successfully completed a number of construction projects which encompass roads, industrial plants, oil and gas pipelines, commercial and residential buildings as well as hotels. Further, the firm has been

contracted in numerous occasions by both the National government and County governments in construction and maintenance of various construction projects across the country. The completion of these projects has been as a result of a well-structured logistics communication network. This has created immense milestones based on the envisioned goals and objectives of the organisation thus the company has registered high satisfaction index ratings from the clients (Zakhem, 2018).

The performance of Zakhem Construction (Kenya) Limited is depicted from the best practices in line with supply chain management which advocates more on cost efficiency, customer responsiveness and asset utilization management. The rallying call for the organisation is to ensure high levels of cost reduction on both transactional and operational activities. The cost efficiency is invariably achieved through order consolidation to enhance economies of scale, contract negotiations to achieve value for money and quality assurance to ensure zero defects. Based on customer responsiveness, the organisation has created a proper framework on how to handle diverse customer's requirements. This include formulation of customer service policy guideline that creates a sense of direction on how customers are handled. On asset utilization management, the organisation has created a recourse on ways of avoiding waste. This include identification of right equipment that ensures proper loading and unloading of materials, proper vehicle routing and scheduling etc. These performance metrics corresponds with Vidalakis (2010) who conducted a study on logistics performance of construction firms and found out that the performance of construction firms primarily depends on key performance indicators embedded in organisations action plans.

#### LITERATURE REVIEW

Achievement of the goals or objectives that a firm has set is dependent on the mode of communication within the firm. A good communication plan or strategy should have people understand the need and purpose of quality management system while at the same time ensuring that employees have their efforts directed towards their accomplishment which would consequently lead to higher performance. Almohsen & Ruwanpra, (2013) on their study on logistics management in the construction industry used descriptive research methodology with an objective of developing a mobile –based application technology model to improve construction productivity. The researchers found out that the model enhance communication between project participants and reduce most the causes of poor logistics management like materials unavailability, double handling, overlapping of activities and crane use disturbance. Almohsen & Ruwanpra (2013) therefore concluded that as a result of communication enhancement the organization overall productivity improves thus improving its general performance.

Wilson, et al (2015) did a study on the effects of information technology on performance of logistics firms in Nairobi County and adopted a descriptive methodology and the results ended up showing that firms that had information systems which had been integrated recorded better performance compared to those no integrated. Further, according to the findings, integrated systems were critical in enhancing information and communication exchange between stakeholders including consumers and suppliers. The research concluded the importance of communication to improvement of the productivity and performance within an entity.

#### METHODOLOGY

This study adopted a descriptive research survey design was adopted in this study. This research design helps in collecting information or data by administering questionnaires and interviewing specific individuals. Mugenda (2008) explained that a descriptive survey is mostly used when describing individuals, phenomena or an organizational setting. The target population of the study included 150 employees working in Zakhem Construction (Kenya) Ltd. The main targets for this research include logistics function, operations function, and planning and administration function of the Zakhem Construction (Kenya) Limited. The sampling technique used was simple random technique which has all the population participants having an equal opportunity of being part of the research's sample. The sample size was 109 respondents who were derived from Slovin's formula  $n = \frac{N}{1 + N(e^2)}$ . The data was obtained through a self-administered questionnaire that comprised open-ended and closed ended questions. The data collected was processed and analyzed using SPSS version 22. Both descriptive and inferential statistics were used to deduce measures of central tendency and to infer the correlation analysis respectively.

#### ANALYSIS AND RESULTS

##### Descriptive Statistics

The descriptive statistics allowed the researcher to describe the distribution of scores using statistics in line with logistics communication on performance of Zakhem Construction Kenya Limited. The analysis of the results are shown in table 1.

**Table 1: Logistics Communication on Performance of Zakhem Construction Kenya Limited**

Logistics communication	Mean	Standard Deviation
There is a smooth information flow to all logistics functions in the organization	3.24	1.145
The organization has invested on information and communication infrastructure systems	3.39	1.139
The organization practices internal information sharing	3.28	1.193
The organization achieves timely response to customer references through effective logistics communication	3.19	1.202
The organization has smooth materials and products flow due to effective logistics communication	3.08	1.297

The researcher began by asking whether there is a smooth information flow to all logistics functions in the organization. Majority of the participants said that this happened to a moderate extent forming 43.2% of the total while 17.0% said that it happened to a great extent and 18.2% said it happened to a very great extent. Furthermore, respondents who said that a smooth flow of information did not exist accounted for 8.0% and those who acknowledged it happened at a small extent formed 13.6%. The researcher also asked whether the organization has invented information and communication infrastructure systems where responses from the participants were recorded as follows; 6.8% said it didn't invest at all, 12.5% depicted it invested at a small extent, and 35.2% were moderate, 26.1% to a great extent and 19.3% to a very great extent. Participants were asked whether the organization practices internal information sharing. 5.7% acknowledged that the organization does not practice at all while 22.7% felt that it practices to a small extent. Furthermore, 29.5% felt to a moderate extent while 21.6% and 20.5% explained that the organisation practises to a great extent and to very great extent respectively. The researcher sought to know if the organization achieves timely response to customer references through effective logistics communication. In this question, most of the respondents said that response was given to a moderate extent representing 42% of the respondents. The results also indicated 10.2% who said the timely response was not given at all, 13.6% opined it happened to a small extent, 14.8% to a great extent and 19.3% to a very great extent. Finally, the respondents were asked if the organization has smooth materials and products flow due to effective logistics communication. The results indicate that 12.5% had the 'not at all' opinion, 22.7% to a small extent, 28.4% to a moderate extent, 17.0% to a great extent and 19.3% to a very great extent.

### Inferential Statistics

Inferential statistics makes predictions and inferences on a population using a sample of data (Sekaran, 2010). Based on this study correlation analysis was used to establish the strength relationship between the independent variables and dependent variable see results of the study in Table 2, 3 and 4.

**Table 2: Pearson Product Moment Correlation**

Variable	Performance of Construction Firms	Logistics communication
Pearson Correlation	1	0.569**
Sig. (2-tailed)		0.000
N	88	88
Logistics communication	Pearson Correlation	0.569**
	Sig. (2-tailed)	0.000
	N	88

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results showed that logistics communication and performance of Zakhem Construction Kenya Limited was significantly strong and positive with  $R = 0.569$ ,  $P = 0.00 < 0.05$ . This denoted that when the firm applies effective logistics communication the performance improves positively leading to high levels of cost efficiency and customer satisfaction.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.726 <sup>a</sup>	0.527	0.504	0.86239

a. Predictors: (Constant), Logistics communication

In line with this study R square was computed to derive the linear regression model. The adjusted R square was 0.504 denoting 50.4% of variations in performance of construction firms in Kenya at 5% significance level.

Only 49.6% of variations in performance of construction firms in Kenya is determined by the stochastic terms not included in the model.

**Table 4: Regression Analysis**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.215	0.751		1.618	0.003
	Logistics communication	0.784	0.175	1.012	4.480	0.000

a. Dependent Variable: Performance of Construction Firms

The regression analysis indicated that, by taking all factors into account as a constant zero, the performance of Zakhem Kenya would be 1.215. This signifies that performance of Zakhem Kenya Limited is deemed to change by 1.215 units. Likewise, the regression results also shows that logistics communication had a statistically significant effect on performance of Zakhem construction Kenya limited with p-value  $0.00 < 0.05$ . Further, a unit change in logistics communication would lead to change in performance of Zakhem construction Kenya limited by 0.784 units and this implies that a unit improvement in logistics communication would lead to a 0.784 increase in the performance of Zakhem construction Kenya limited.

#### DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The study found out that the organization practices a smooth information flow to all logistics functions in the organization to a moderate extent. The organization had also invested on information and communication infrastructure systems to a moderate extent according to the majority respondents. On internal information sharing majority said the organization practice to a moderate extent where a reasonable number agreed that the organization practice to a very great extent. The research depicted that the organization achieves timely response to customer references through effective logistics communication to a moderate extent. Further, the research depicted that the organization has smooth materials and products flow due to effective logistics communication to a moderate extent as opined by the majority. Based on the findings from the study logistics communication recorded marginal ratings. Despite this phenomenon, the management should ensure consistency all the time. In connection to this, the study recommends that the company should embrace vibrant communication to ensure smooth information flow to all logistics functions in the organization. In addition to that, the company should invest heavily on information and communication infrastructure systems so as to enhance information sharing with other stakeholders to the company. The study further recommends that the company devise an effective logistics communication plan to be implemented by the firm. The plan should have a clear communication command structure that all employees ought to follow.

#### SCOPE FOR FURTHER STUDIES

This study sought to examine the influence of logistics communication on performance of Zakhem construction Kenya limited. Some of the areas of study that future researchers can embark on include examining the impact of logistics management in other sectors apart from the construction sector maybe the food production or mining sectors. Future researchers could also adopt a different methodology where both quantitative and qualitative methods are used. Another study could be to examine the factors affecting the efficiency and effectiveness of logistics management on the performance of the organization. Finally, a study could be done to examine the impact of logistics management on the performance of procurement within an organization.

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