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INTERNAL ORGANIZATION ENVIRONMENT AND PROJECT PERFORMANCE IN CONSTRUCTION FIRMS WITHIN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Purpose: The study assessed the influence of internal organization environment on project performance in construction firms within Nairobi City County, Kenya.

Methodology: The research adopted a descriptive research design that utilized a mixed research methodology. The study further adopted census sampling method hence the sample respondents was 98 employees drawn from the 49 registered construction firms in Nairobi City County. The research utilized semi-structured questionnaires for the data collection with secondary data being used to supplement the primary responses. The study relied on both descriptive and inferential statistics in the analysis process.

Results: The study was able to obtain 80% response rate from the sample respondents. The findings of the study indicated that internal organization environment contributed had a positive and statistically significant association.

Unique contribution to theory, practice and policy: The study recommends that construction firm should enhance their communication and feedback system, their employee training and development, reward and recognition systems as well as the shared values within the organization.

Keywords: *Project performance, Organization structure, Organization culture, Resource capability, Employee competence*

Introduction

Every decision made by management, determines the direction the firm takes in future. However, decisions are based on shareholding composition, financial prospects based on current firm potential, corporate governance and the economic condition prevailing in the market (Drucker, 2011). In implementing projects the management always seek to maximize the success of the projects being undertaken. However, the project implementation process is a delicate operation which can be easily be affected by either internal factors, external factors or a combination of both (Kululanga & Kuotcha, 2010). According to Galbreath and Galvins (2008) the internal organization environment is an integral component of the organization that includes the management of employees, the organization culture, structure and other aspects that guide and define employee behaviour (Yazdanfar, 2013).

Employee competency and the size of the firm are highly associated with the organization performance (Dogan, 2013), leverage, liquidity, firm age, corporate culture, board size, internal structures (Vafeas, 2009). Scholars have diverge views with some arguing that it is actually firm factors that highly influence performance (Galbreath & Galvins, 2008) whereas others argue that industry characteristics are the ones influencing firm performance (Porter, 1980). Empirical evidence has over time led to identification of some success factors, present in high performing firms. These factors are known to contribute to over 80% of a firm's performance (Niaga, 2012). The factors have been christened firm-specific characteristics since all high performing organizations possess them in some combination. The organizational factors include but no limited to resource capability, the human personnel, organization structure, and organization culture and leadership competency. Today, any well running organization strives to acquire these characteristics through staff training, capital injection, recruitment as well as staff motivation (Mungai, 2014).

McKinsey's argued that the organization internal environment can be conceptualized in the lines of strategy, the structure, skills, the internal systems, the organization culture (shared values) and the leadership style that play a critical role in shaping the organization performance (Gyepi-Garbrah & Binfor, 2013). The ultimate project performance is achieved through limiting cost runaway, sticking to time frames, design, meeting technical quality standards, safety and environmental protection measures. Project performance ensures that enterprises maximise on profitability, minimise the consequences of risky and uncertain events in terms of achieving the objectives of the project and seizes the chances of the risky events from arising (Kululanga & Kuotcha, 2010). The purpose of Key performance indicators (KPIs) is that clients want their projects delivered on time, within budget, as per the specifications, efficiently, right first time, safely, by profitable companies (Muchai, 2012). The KPIs framework consists of seven main groups: time, cost, quality, client satisfaction, client changes, business Performance, health and safety (DETR, 2006).

According to the National Construction Authority (2017) there are 49 registered construction firms within the county. Further the report acknowledges that there are other firms that have not achieved high capacity within the construction industry hence have not been able to achieve registration status. Hence the study focussed on the registered firms that have been core to the infrastructural development within the capital city.

Statement of the Problem

Many studies have been done to investigate the effect of certain firm factors on financial performance, but what is amazing is that many researchers have concentrated on only a few if

not one firm characteristic and have used others as control variables even though results of their findings show that the "other firm characteristic" actually have a significant effect on financial performance (Nunes, Serrasqueiro & Sequeira, 2009; Dogan, 2013). Furthermore there has been scant literature examining the influence of internal organization environment on the project performance; especially within construction firms where there are numerous projects being undertaken.

In their review, Kemei and Nyerere, (2016) on the construction sites in Nairobi County; the researcher's indicated that the incompetency of construction firms was central to the continuing disasters in the building sector in the city. In general the studies by Mwaniki, Wamuchiru, Mwau, Opiyo, and Mwaniki, (2015); Auma (2014) indicates that there is a disconnect in the internal mechanisms across construction firms as there is a variability in the project performance; hence this study seeks to statistically confirm if any the association between internal organization factors and project performance in construction firms in Nairobi, County. Further Ngacho and Das, (2014) noted with deep concern that there was poor project implementation in the construction industry largely attributed to the poor organization culture and wastage of resources allocated to the project.

The research sought to examine if internal organization environment plays a role in determining the project performance within these firms. The limited scholarly literature and statistical evidence mapping the contribution of internal factors on the project performance within the construction industry has motivated the need for the current study. The purpose of the study will be to examine the relationship between internal organization environment and project performance within construction firms in Nairobi City County.

Objectives of the Study

The study assessed the influence of internal organization environment on project performance in construction firms within Nairobi City County, Kenya.

Specific Objectives

i. To determine the influence of organization culture on project performance among construction firms in Nairobi City County
ii. To examine the influence of employee competency on project performance among construction firms in Nairobi City County

Theoretical Review Resource Based View Theory

Pearce and Robinson (2011) are of the view that the resource based view (RBV) is an analytical model that helps to examine the unique capabilities of the firm that can be leverage for strategic advantage over the competitors. These unique capabilities can include employee skills, the organization assets and other intangible aspects of the firm. This theory is concerned with internal firm-specific factors and their effect on performance. The theory views the firm as bundle of resources which can be utilized in creating internal capabilities that will offer the organization a competitive advantage (Grant, 1991). Each firm develops competencies from these resources, and when they are well developed, these become the source of a competitive edge. This theory will aide in explaining project performance variation of single industry firms as it specifically addresses firm factors rather than industry factors. Employees are a critical resource to the firm with unique capabilities that the firm can leverage on to foster productivity and performance within the organization. The theory was instrumental in supporting employee competency as a key resource of the organization.

Resource Dependency Theory

The proponent of resource dependency theory is Williamson (1985) who argued that there is need to have environmental linkages between the firm and outside resources. These environmental linkages can help the firm reduce the levels of transaction costs associated with environmental interdependency (Williamson, 1985). Several factors have been known to intensify the character of these dependences. They include: the importance of the resource, the relative shortage of the resource and the extent to which the resource is concentrated in the environment (Wan & Idris, 2012). Hence in general the availability of sufficient financial and non-financial resources is essential in promoting the performance of a firm. Thus the resource dependency theory was important in examining how employee competency as a strategic capability can be an antecedent to better performance within an organization.

Empirical Review

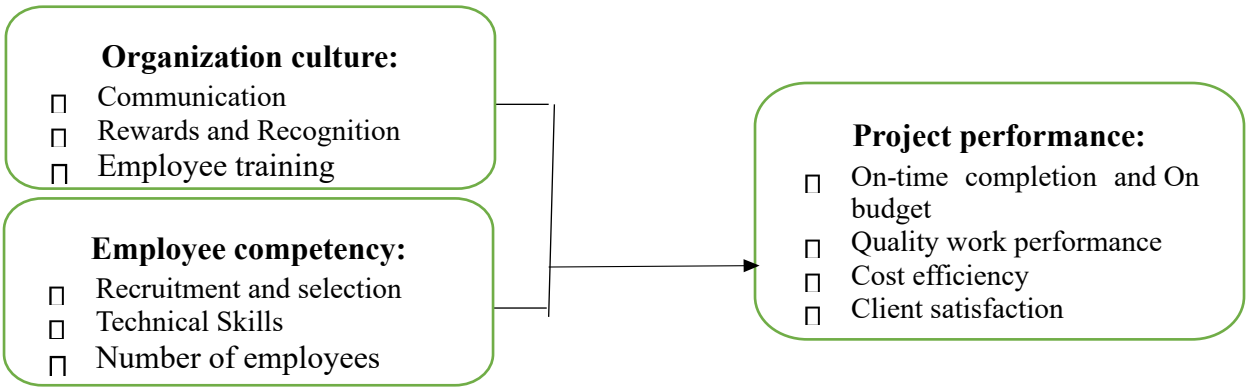
According to Yeung, Chan, Chan, Chiang and Yang (2012), scholars have conducted investigation on project performance evaluation and benchmarking in the construction management discipline and there is therefore a great need for construction industry to pinpoint the common indicators by project managers in measuring construction performance at the project level. Wadugodapitiya, Sandanayake and Thurairajah (2010) explain performance measurement (PM) as a fundamental part of management and defines it as a process of evaluating the project actions against the laid standards and objectives. In addition, PM is important for organizations to appraise its actual objectives compared to the predefined goals and to make certain that they are doing well in the competitive environment.

Menoka (2014) carried out a study on stakeholder Involvement and sustainability-related project performance in construction. This research performed an empirical investigation through mixed-method research as the appropriate research technique. ANOVA revealed the variation of the perception of participant's roles and companies' strategic focuses towards the stakeholder's Involvement, construction sustainability and construction project performance. However the above study did not take into consideration how internal organization environment influences the performance of construction projects in Nairobi City County. Akanni, Oke and Akpomiemie, (2015) conducted a study on the impact of environmental factors on building project performance in Delta State, Nigeria. The findings of the study indicated that financial, economic and political factors were the main factors that affected the building industry project performance. However, the study further indicated that organization structures that did not allow for extensive stakeholder involvement also limited the project performance.

Lindhard and Larsen (2016) sought to identify the key process factors affecting project performance. The findings of the study indicated that ranking on significance showed that the financing capability of the implementing firm had the highest influence on the project performance. Mahamid (2016) studied the factors contributing to poor performance in construction projects: studies of Saudi Arabia. The findings of the results indicated that costs and payment delays to contractors were the main factors that affected the performance of construction projects in Saudi Arabia. Abuazoom, Hanafi, and Ahmad, (2017) examined the influence of HRM Practices on Project Performance: Conceptual Framework. The results of the study showed that with increased employee training there is better productivity and efficiency across the project units which translates to positive project performance. Njeri and Were (2017) examined the determinants of project performance in non-governmental

organizations in Kenya, a case study of hand in hand Eastern Africa. The results of the study showed that the project team commitment has a significant influence on the influence on project performance in non-governmental organizations in Kenya (β1=0.781, p-value=0.000). The study found that top management support has a significant influence on project performance in non-governmental organizations in Kenya (β1=0.811, p-value=0.000). The study however considered a single project in a non-governmental facility.

Conceptual Framework Independent Variables **Dependent Variable**



Research Methodology

A descriptive survey design was adopted for this study since it enabled the researcher to carry out a survey without changing or influencing the study environment. The current study targeted all the 49 registered construction firms in Nairobi City County as per the National Construction Authority 2017 register. Sampling techniques consist of either probability or noprobability sampling. The study utilized simple random sampling in the selection of 2 respondents from each of the firm.

Table 1: Target Population

Category	Number of Firm	Percentage of Population
Managing Director	49	50%
Project/operations Managers	49	50%
Total	**98**	**100%**

The study adopted both primary and secondary data. The primary data was collected using a semi-structured questionnaires. The secondary data was collected from journals, reports and other publications. The research developed the questionnaire which was the main data collection instrument. The study sought a research permit from NACOSTI before embarking on the main data collection process. The Statistical Package for Social Sciences (SPSS) version 23 was used to analyse both descriptive and inferential data. Descriptive statistics was analysed using frequencies, percentages, standard deviation and means, while inferential statistics will be analysed for correlation and regressions. The findings were presented using tables and figures. The study adopted the following regression equation;

$$\mathbf{Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + e}$$ Where:

Y = Project performance in construction firms

{βi; i=1, 2,3,4} = The coefficients for the various independent variables Xi

for;

X_1 = organization culture

X_2 = employee competency

The study conducted a series of diagnostic tests before interpretation of the model. The first test was the Normality Test which was used to evaluate the distribution pattern of the data. The study adopted the Shapiro-Wilk test to determine the normality of the data to be used in the study. The second test was the multicollinearity. Multicollinearity exists when one or more explanatory variables are highly linearly related to each other. The study utilized the VIF and Tolerance values to access the collinearity of instrument.

Results and Discussion of Findings Response Rate

The research was able to obtain a response rate of 80% as indicated in the figure below. Kaplowitz, Hadlock, and Levine, (2004) indicated that a response rate of above 60% is reliable for statistical analysis; hence the research response was deemed appropriate for analysis.

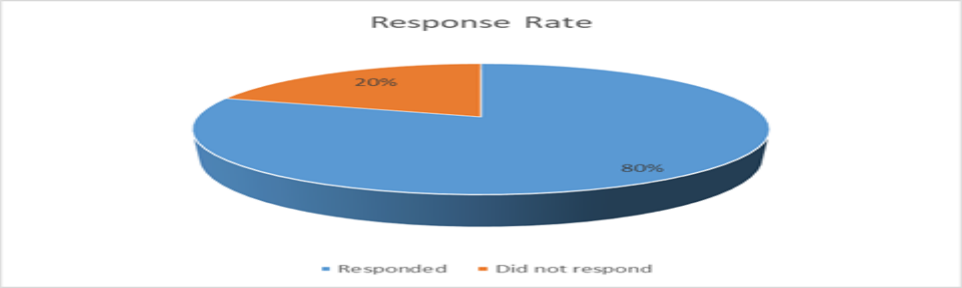


Figure 1 Response Rate Education Level of Respondents

The results of the study indicated that 64% of the respondent were graduates, 22% of the respondent had diploma qualifications, 12% of the respondents were at postgraduate level. These findings indicated that construction firms have been experiencing radical shift from unskilled profession to a full skilled profession; with the recent regulation by National Construction Authority requiring employees to be registered with the authority upon completion of their studies.

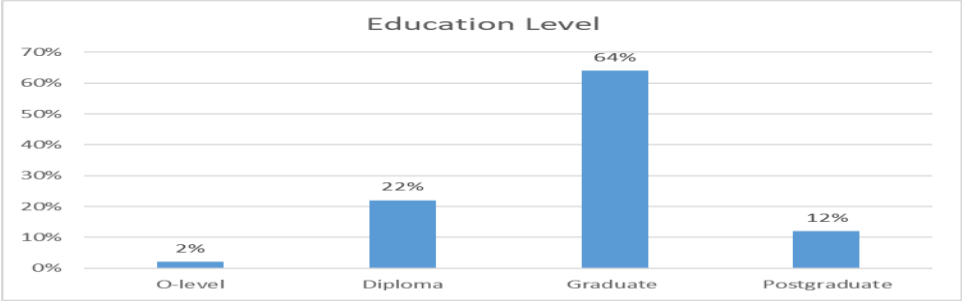


Figure 2 Education Level of Respondents

Position in the Organization

Findings from the research indicated that 68% of the respondents were project managers, 17% of the respondents were the firm managers while only 15% of the respondents were the operations manager. This is consistent with NCA (2016) report that indicated construction firms

across the country had reformed there organization structures and corporate governance frameworks.

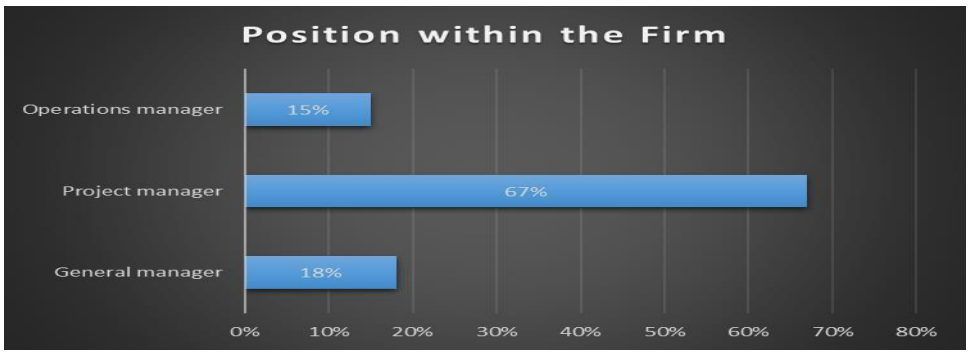


Figure 3 Position in the Organization

Organization Performance

The results of the study were assessed using means and standard deviation. This assisted in examining the level of agreement among respondents.

Table 2 Organization Performance of Construction Firms

	N	Mean	Std. Dev
On time completion of the project	78	4.3846	.58622
Completion of the project within the budgeted limits	78	4.4615	.55109
Quality work performance on completion of project	78	4.3462	.47882
Enhanced cost efficiency on completion of project	78	4.5000	.52841
Better client satisfaction on completion of project	78	4.5256	.52778

The results of the study on table 4.2 indicates that the respondents were strongly in agreement that there was on-time completion of projects as indicated by a mean value of 4.3846 and a standard deviation of .58622 indicating minimal variations in the responses. The results also indicated that respondents strongly agreed that firms completed project within the budgeted limits as indicated by a mean value of 4.4615 and a deviation of .55109. The results also indicated that respondents strongly agreed that there was better client satisfaction on completion of the project as indicated by a mean value of 4.5256 and a standard deviation of .52778. The above findings resonate with the results of Wadugodapitiya et al., (2010) who indicated that the main project performance indicators were the cost efficiency, timely completion of the project and quality work performance. The results are also in agreement with the work of Akanni, Oke, and Akpomiemie (2015) who indicated that the risks and benefits of the project to the client also serve as measures of the performance in a project.

Influence of Organization Culture on Project Performance Table 3 Organization Culture Descriptive

	N	Mean	Std. Dev
Effective communication within the firm promotes client satisfaction	78	4.3205	.76436
Better communication within the firm promotes ontime project completion	78	4.1667	.69163

Increased rewards promotes quality work performance in the project	78	4.3077	.79459
Employee training fosters cost efficiency in the project	78	4.2821	.68181
Better employee recognition enhances the work performance	78	4.4487	.65757
Effective employee training enhances client satisfaction in the project	78	4.2308	.71936

With regard to effective communication within the firm promotes client satisfaction, there was a strong agreement among respondents as shown by a mean value of 4.3205 and a standard deviation of .76436. The respondents were also in a strong agreement that better communication within the firm promotes on-time project completion as indicated by a mean value of 4.1667 and a standard deviation of .69163. Concerning increased rewards promotes quality work performance in the project there was strong agreement among the respondents as indicated by a mean value of 4.3077 and a standard deviation of .79459. In regard to employee training fosters cost efficiency in the project there was a strong agreement among respondents as indicated by a mean value of 4.2821 and a standard deviation of .68181. The respondents were also in strong agreement that Better employee recognition enhances the work performance as shown by a mean value of 4.4487 and a deviation of .65757. The above findings are in line with Akomah and Jackson, (2016) who concluded that utilization of employee training, meetings and assessment influence the performance of projects. The study results also support the conclusions drawn by Ondari and Gekara (2013) who pointed out that sufficient human capacity, rewards and recognition system and financial stability enhanced project performance.

Influence of Employee Competency on Project Performance Table 4 Employee Competency Descriptive

	N	Mean	Std. Dev
Effective recruitment and section enhance quality work performance in the project	78	4.1923	.72179
Increased technical skills of employees fosters costefficiency in the project	78	4.1026	.84653
Sufficient number of employees promote on-time completion of project	78	4.2821	.73674
Employee competency supports efficiency which ensures on budget project completion	78	4.2179	.69595
Enhanced employee skills and training fosters client satisfaction	78	4.3333	.67740

The results of the study on Table 4 above indicated that with regard to effective recruitment and section enhance quality work performance in the project, there was strong agreement among the respondents as shown by a mean value of 4.1923 and a standard deviation of .72179. The results of the study are in agreement with Njeri and Were, (2017) who indicated that management support in recruitment and selection promotes project performance. In regard to increased technical skills of employees fosters cost-efficiency in the project there was strong

agreement among the respondents as shown by a mean value of 4.1026 and a deviation of .84653. These findings are consistent with Adeleke, Bahaudin, and Kamaruddeen, (2017) who concluded that employee capability enhances efficiency within the organization. **Inferential Statistics**

Regression Coefficients Table 5 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.223	.797		.280	.001
	Organization culture	.861	.234	1.248	3.686	.000
	Employee competency	.938	.278	1.072	3.370	.001

a. Dependent Variable: Project performance

From the above model the resulting regression equation will be;

$Y = .223 + .861X_1 + .938X_2 + e$

The model indicates that a unit change in organization culture will result in .861 change in project performance. These findings are in line with (Okwach, 2015) who concluded that shared values and the organization culture had a positive influence on project performance. The findings of the study also showed that unit change in employee competency will result in .938 change in project performance. These findings are supported by Abuazoom, Hanafi, and Ahmad, (2017) who pointed out that human resource management practices were essential in enhancing project performance within firms.

Conclusion

The study further concludes that the management should ensure the technical skills and competencies of the employees are upheld within the firm as it is a main predictor of project performance. With effective human resource policies the organization will be able to enhance the capabilities and competencies of personnel which will foster productivity and work performance. The study further concludes that the management should implement a robust internal organization culture that accommodates the views of employees and other external stakeholders as key resources that can be harnessed for better project performance. Firms should also ensure an elaborate communication system is put in place and shared values within the firm are well laid out.

Recommendation

The research further recommends that the management of construction firms should employ risk managers who will be able to assess the quality standards of their construction projects against international standards; this will lead to better project performance. The study further recommends that the management should enhance consultation and delegation within the firm as an employee motivation tool. The research further recommends that construction firms should adopt better rewards, remuneration and recognition systems that will enhance employee productivity and ultimately the project performance.

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