

Original Research Article

Enterprise Resource Planning Capability and Performance of Telecommunications Firms in Nairobi City County, Kenya

Maurine Jepchirchir Letting^{1*}, Dr. Josphat Kyalo²¹(MBA/MIS-Candidate), Department of Management Science School of Business, Kenyatta University, Kenyatta university, Main Campus, Kenya Drive, Nairobi, Kenya²Lecturer, Department of Management Science School of Business, Kenyatta University, Kenyatta university, Main Campus, Kenya Drive, Nairobi, Kenya**Article History****Received:** 11.05.2022**Accepted:** 06.06.2022**Published:** 16.06.2022**Journal homepage:**<https://www.easpublisher.com>**Quick Response Code**

Abstract: Many IT enterprises in Kenya face the challenge to improve data and voice services' competitiveness, quantity, quality and dependability. Strategic IT is seen as a critical aspect to solve these difficulties. The improvement of firm competitiveness does not always ensure that company performance is improved. The study's specific objectives were as follows; to determine the effect of system integration, system security, management support and data storage on performance of telecommunications firms in Nairobi City County. The study was guided by game theory, resource-based theory, system theory and Unified Theory of Acceptance and Use of Technology. The target population was 250 staffs of telecommunications firms in Nairobi City County, Kenya from different departments. The study employed a descriptive research methodology, with a sample size of 153 selected participants using a simple random selection procedure. Based on the regression coefficients results above, department integration has a significant effect ($\beta=0.158$; $p<0.05$) on performance of Telecommunication firms. It can be concluded that ERP capability offers system security by implementing user files whereby in order to log into the systems, one is required to input his or her password in order to gain access. Moreover, ERP capability ensures that all process storage is saved in system central database. The study recommended that the Nairobi County government and telecommunication firms commit sufficient resources to the implementation of an efficient and effective enterprise resource planning system and that automation be treated as a critical line of development in the telecommunications field.

Keywords: Enterprise Resource Planning Capability, Performance of Telecommunication Firms.

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INTRODUCTION

Institution consistently demands to build up new business targets to satisfy their corporate dreams [1]. Performance is measured both by financial and non-financial measurements of telecommunications companies. Average return per user (ARPU) is the most used financial indicator for telecommunications companies. This is a significant indicator in the telecommunications business, as it shows the operating competitiveness of the enterprise. It is essential for these enterprises to be able to optimize the profits and decrease the costs of servicing every end user. Since telecommunications companies are service providers rather than product makers, investors seek to measure

marginal profit and unit costs to show how well the company uses resources.

Telecom firms offering bundling services generally enjoy a higher ARPU (Davis, 2017). However, the growing propensity for each client to own several SIMs makes ARPU less meaningful. With the increase in equipment and SIM card ownership, carriers explore innovative ways in which their expenses like average revenue per account (ARPA). ERP could help achieve task-to-innovation similarity, a long-overdue IT setup. Therefore, ERP has gotten one of the significant IT speculations for some, associations like in Jamii telecommunications Limited [2].

*Corresponding Author: Maurine Jepchirchir Letting

(MBA/MIS-Candidate), Department of Management Science School of Business, Kenyatta University, Kenyatta university, Main Campus, Kenya Drive, Nairobi, Kenya

Globally, ERP frameworks capabilities are one database, one utility and a bound together interface over the total organization. This method improves the basic leadership technique for the companies through the accessibility of proper and opportune information.

In Kenya, Telecommunication is similarly a very rewarding business, Telecommunications organizations need to create, operate and monitor their enterprises effectively to improve their market performance in today's competitive and changing industry. In order to do this, effective business strategies must be established and implemented for exceptional results.

Performance of Telecommunications Firms

In Kenya, telecommunications providers are utilizing technology to share information over large distances. In accordance with the Kenya data and Act to communicate (2011) Communication Act (2019) and Kenya Amendment Act (2009). Regulation on communication in Kenya's telecom businesses are classified as Provider of network installations (NFP) This class includes telecommunications operators permitted to build, own, besides operate any kind of technology for Communications (Whether land-based or in-country satellite, mobile, or stationary). Network operators, mobile operators as well as local loop providers, among others, would be included. This is for the reason that communication technology requires information transmission routes [3].

Kenya now hosts a flourishing ecosystem in which the country's capacity for mobile transaction platforms has brought out several services, soft-applications and even societal lifestyles. The era of industrialization as well as information has allowed the telecommunications business to evolve into diverse functions in order to assist the technological development of better services that any nation demands [4]. In today's commercial climate, both fast-growing and older telecommunications companies are under severe pressure. Telecommunications firms in Nairobi City County have been presented to improved utilization of information technology (IT) in institutions that are made attainable through partnership and technology activities. Telecommunications firms in Nairobi City County have been in presence for as long as ten years.

Telecommunications firms in Nairobi County

Telecommunications firms in Nairobi City County have accumulated numerous advantages from the selection of ERP framework. The proficiency in tasks is detectable and the authority has figured out how to reduce operation cost [7]. The degree to which Telecommunications firms in Nairobi City County have received Enterprise resource management software is confirmed by the acknowledgment that has been given to this authority towards the equivalent. Jamii

telecommunications Limited was awarded during the annual award ceremony. In fact, according to Alliance Technologies, it is the attending challenges that have informed the degree of success regarding the adoption and integration of the system is concerned. These challenges include difficulties in changing the attitudes of the employees at Jamii telecommunications Limited and the organization culture in place to adopt the system. Others include the lack of congruence between the ERP installed and the needs of the Telecommunication limited and various employees within the same [8].

STATEMENT OF THE PROBLEM

The performance of a firm is essential and without corporate can distance itself from its customers and become uncompetitive and finally stop profiting. The implementation of business plans necessitates a variety of costly and time-consuming changes in both organizational culture and structure, which means that many businesses are forced to forego key strategic plans. This has had a significant detrimental effect on the effectiveness of their organization, as a result of which there has been a decrease in service quality, increased inefficiency on the part of the internal sector, bad sales, and profitability. Telecommunications firms are continually evolving and telecoms companies need to be responsive to maintain their position [5]. The telecommunications business is confronted with continuing robust expansion in connection demand, consistent high competition challenger safety and continuous innovation in appliances and services. The difference in business plans and the way they are implemented makes one company surpass another [6]. Institutions in Nairobi City County must appreciate the framework's reception from the perspective of the client in order to prepare their representatives to face new challenges and figure out how to use technology to reap significant benefits. Telecommunications firms in Nairobi City has experienced authoritative and social issues during the appropriation and execution of new IT by and large. Subsequently, it is appropriate to understand the impact of the different elements affecting the acknowledgment of ERP at Jamii telecommunications Limited.

Research objective

To investigate on the effects of enterprise resource planning capability and performance of telecommunications firms in Nairobi City County, Kenya.

EMPIRICAL REVIEW

System Integration and Performance of Telecommunication Firms

Enterprise Resource Planning links information of all departments within an institution [9]. The application of Enterprise Resource Planning is a tiresome activity because it includes separate types of consumers. Enterprise Resource Planning in the process

reduces work traffic which is the main work of a system. The expanded interest for unions and acquisitions request that organizations must be able to control and facilitate progressively remote working units [10].

An Enterprise Resource Planning framework can help accomplish this by empowering the sharing of continuous data crosswise over divisions, monetary forms, dialects and national outskirts given the pattern of globalization. Around the 18th Century many organizations had difficulties in information technology integration challenges and needed the linking of the departments by a centralized system like an Enterprise Resource Planning (ERP). The ERP software system therefore existed way back in the years in order to make work easier for department communication efficiency. It's only that in the current 21st century ERP systems have been upgraded for better integration [11].

Information Security and Performance of Telecommunication Firms

Parallel concentration on cyber security, data privacy, and data governance has been placed on 2020 [12]. Remote workforces have brought data privacy and data governance to the forefront, in addition to hackers attempting to exploit programs and steal data. The ability of an organization to continue normal business activities in a remote setting without seeing a large increase in fraud and data exploitation has been neglected as a 2020 concern [13]. Several leaders have been pushed to immediately build privacy and compliance frameworks as a result of this [14].

Data Storage and Performance of Telecommunication Firms

ERP database is a structured collection of data that is kept and retrieved electronically from a computer system [15]. Databases are more complicated here, and they're frequently built utilizing formal design and modeling methodologies. Inventory storage is minimized because to ERP capabilities [16]. Most data-driven operations may be analyzed, monitored, and carried out using ERP software, which is a fully integrated, user-friendly platform. ERP solutions use a single database to collect, store, and analyze data from all departments. Data storage and analysis across

divisions ensures seamless communication throughout your company.

Utilizing shared databases managed by a database management system, most ERP delivers an integrated and continually updated view of fundamental business activities. All records of an organization get saved in a central database which has strongly enforced security features and servicing [17].

RESEARCH METHODOLOGY

Descriptive research identifies and analyzes things as they are, with the goal of providing statistical data on topics of interest to policymakers and educator. The research was conducted using descriptive research design [18]. The target population was 250 staffs of Telecommunications firms in Nairobi City County. The researcher used simple random sampling method to select a sample size of 153. Questionnaires were used as the main data collection method. The questionnaires included both closed and open-ended questions.

DATA ANALYSIS AND PRESENTATION

The process of data analysis is the method of evaluating the First before the information was analyzed, it was processed. Equally quantitative and qualitative data was collected. Content analysis was utilized to analyze data that is qualitative in nature and narratives were used to convey it [19]. Descriptive statistics as well as inferential statistical models particularly reverse multiple regression were used to evaluate quantitative data. Regarding qualitative data, its analysis was achieved through thematic examination and explored in accordance with the study's aims. The collected data was modified and examined with SPSS version 24 software. Calculating the means, standard deviations and percentages were used in the descriptive statistics analysis. After that, the results of the analysis were presented in the form of frequency tables, pie charts, and bar charts [20].

RESULTS AND DISCUSSIONS

In this research, simple linear regression was used to analyze the nature and the strength of the influence of independent variable on the dependent variable. The model summary presented in table 1 was used to ascertain the explained variation of the model.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.825 ^a	.681	.672	.602	.413	41.112	1	43	.000

a. Predictors: (Constant), Enterprise Resource Planning Capability of Digital firms

Model summary table above shows that the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) R2 equals 0.681 that is

system integration, information security, data Storage and management support leaving only 1.5 percent unexplained. The P- value of 0.000 (Less than 0.05) implies that the model of performance of

telecommunication firms is significant at the 5 percent significance.

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	112.365	4	28.091	77.397	.000 ^b
	Residual	52.628	145	.363		
	Total	164.993	149			
a. Dependent Variable: Performance of Telecommunication firms.						
b. Predictors: (Constant), Enterprise Resource Planning of Telecommunication firms						

ANOVA findings (P- value of 0.00) shows that there is correlation between the predictor's variables (system integration, information security, data Storage and management support) and response variable (Performance of telecommunication firms). An F ratio is calculated which represents the variance between the groups, divided by the variance within the groups. A

large F ratio indicates that there is more variability between the groups (caused by the independent variable) than there is within each group, referred to as the error term. A significant F test indicates that we can reject the null hypothesis which states that the population means are equal. The P value is 0.000 which is less than 0.005 significance level.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.808	.243		3.318	.001
	Department Integration	.214	.081	.158	2.641	.009
	System security	.340	.080	.344	4.258	.000
	Storage	.268	.109	.206	2.465	.015
	Management Support	.419	.044	.527	9.441	.000

a. Dependent Variable: *Performance of Telecommunication firms*

Source: Research Data (2022)

Based on the regression coefficients results above, department integration has a significant effect ($\beta=0.158$; $p<0.05$) on performance of Telecommunication firms. The other variables had system security having ($\beta=0.344$; $p<0.05$), storage ($\beta=0.206$; $p<0.05$) and management support ($\beta=0.527$; $p<0.05$).

CONCLUSION

ERP capability has made it possible for departments to be integrated allowing communication of departments easier. With ERP systems, cost of operation gets low since ERP cuts down the operation cost like man power who need salaries and costs of buying record papers and files.

ERP capability offers system security by implementing user files whereby in order to log into the systems, one is required to input his or her password in order to gain access. User login files ensures accountability and reduces data corruption and theft.

ERP capability ensures that all process storage is saved in system central database. This ensures that backup is done and reference retrieved when needed. Results also states that it is cheap to have a central database rather than storage on files placed on office shelves. It is also concluded that ERP helps in troubleshooting making it easier for top management to give support when an issue arises in the firm. ERP

systems makes it easier for manages during decision making by offering system help options.

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