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INFLUENCE OF USER ACCEPTANCE ON THE PERFORMANCE OF ICT FIRMS IN NAIROBI COUNTY

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Abstract

Purpose: To determine how user acceptance influences the performance of ICT firms in Nairobi County.

Methodology: This study utilized descriptive quantitative research design with a and is a cross-sectional survey. Multi-linear regression model was used in testing the study hypotheses. One or more of the Chief Officers in the target population was 486 ICT firms were the respondents. The primary data collection instrument was a structured questionnaire. From the data obtained descriptive and inferential statistics were extracted using SPSS and presented in respective tables.

Results: The study found that there is no statistically significant influence of User acceptance on the performance of ICT firms in Nairobi County.

Unique contribution to theory, practice and policy: Since no statistically significance relationships were found between User acceptance, attention should be put on information systems improving process rather than the direct influence of performance this study recommends that firms should determine benefits other than the overall firm's performance upon which the resource allocation argument can be based. This would avoid the risk of having stakeholder expectations that cannot be matched by outcomes.

Keywords: *System role, performance, ICT*

1.0 INTRODUCTION

1.1 Background of the Study

The increasing competitiveness in almost all aspects of human endeavor, leads to trends like globalization and digitization. This motivates businesses to deploy technology to support their operations. Information technology is at the center of this revolution because businesses are recognizing the need to interconnect internally and externally. Internally, organizations are interconnecting functions; externally organizations are interconnecting with suppliers, customers and global brunch systems. To do this they are developing and deploying an array of computerized applications. Lipaj and Davidavičienė (2013) state that the general business performance could be influenced through the deployment of IS by improving internal processes and financial performance of the company. DeLone and McLean (1992) allude to the fact that Information Systems create information as the output and that it is the communication of this resultant information that influences the recipient as an individual or as an organization.

In the early history of computing, the hardware was bulky and expensive. The running of Information Systems required highly trained human resources which were rare and expensive. In recent decades, the systems costs have greatly reduced and trained information technology human resource is in abundant supply. However, with increased competition and customer sophistication, Information Systems still constitute a significant financial outlay for organizations. In Kenya, there is an increasing investment in information systems and related services. The 2015 Kenya economic survey indicates that the ICT sector, which comprises of firms engaged in providing Information and computer technology services and equipment, is growing at a rate 12% per year and is expected to continue to grow (Kenya National Bureau of Statistics, 2015). This is an indicator that the demand for information systems continues to raise and it should be expected that the investments in these systems will have a significant level of influence on the performance of the individual organizations that are deploying and utilizing them.

Implementation of IS in itself is not sufficient to produce positive effect in the firms' performance. The firms' IS strategy has to be aligned effectively with the rest of the strategy. In fact, the implementation could have adverse effects on performance. Stair and Reynolds (2011) indicate that higher costs and poorer customer service could partly be because of lack of transaction processing systems integration. Of concern to management therefore is the comprehensive understanding of how the implementation of IS will influence the organization in general and performance in particular. Specifying the relationship between IS and the firms' performance is crucial in this endeavor. Ali and Younes (2013), amongst other researchers indicate that there exists significant challenges in this specification. These challenges stem in part from the fact that IS factors act catalytically with others such as decision quality and user and manager characteristics to produce influence on the organizational performance (Obasan & Soyebo, 2012.)

1.2 Statement of the Problem

In a highly complex business environment, organizations have increasingly deployed Information Systems with the expectations of gaining some competitive advantage through cost reduction, quality improvement, production optimization, decision quality improvement amongst others. These expectations are demonstrated, in part, by the continuous increase of investments in IS. However, determining the expected gains poses a challenge to organizations. Previous studies have

produced non-conclusive results (Abugabah, Sanzogni & Poropat, 2009), some which contradicted the expectation of improved economic performance (Olugbode, Elbeltagi, Simmons & Biss, 2008).

According to Petter, DeLone and Mclean (2008) little improvement has been seen in the science of measuring the influence of information systems success on performance in empirical studies in the past decade. They assert that "Researchers and practitioners still tend to focus on single dimensions of IS success and therefore do not get a clear picture of the impacts of their systems and methods. Progress in measuring the individual success dimensions has also been slow." (Petter, DeLone & Mclean, 2013)

In addition to the above, though the growth of output of the ICT sector in Kenya is estimated at 12% per annum there was no reference to the contribution of information systems to other sectors. This growth is mainly driven by mobile subscriptions and internet users. The overall economic growth (GDP) for 2015 was estimated at 5.4 percent which is 0.3 % lower than the previous year (Kenya Bureau of Statistics, 2015). From this disparity in growth rate, it can be inferred that the demand for information systems and related services is not efficiently translating into improved performance. A deficiency of information on this subject that is relevant to Kenyan businesses is evident. There is no reference the construct 'Information Systems' as a factor in the performance of organizations or the sector.

1.3 Objective of the Study

The objective of the study will be to determine how system role quality influences the performance of ICT firms in Nairobi County.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1User Satisfaction and Technology Acceptance model

Nelson, Todd and Wixom (2005) postulated an integration of user satisfaction and technology acceptance to help bridge design and implementation decisions, system characteristics and prediction of usage. The three constructs are all important to the success of an information system. For information technology to be useful individuals must adapt and use the new technologies. TAM predicts this by perceived usefulness and ease of use, the degree to which an individual perceives that using the new technology is free of effort. Further the theory posits that the effect of other variables such as design characteristics will be mediated by these. (Venkatesh & Bala, 2008).

The resultant research model gave the variables of Information Quality as Completeness, accuracy, format and currency and for system quality as reliability, flexibility, integration, Accessibility and timeliness. These are key components of the contribution of information systems to product innovation.

2.2 Empirical Studies

Kornkaew (2012) observes that key challenges to the implementation of information systems include the following: individual skills and knowledge required in order to be able to use the information system, system evaluation which is the process to ensure the correction, availability

and readiness of the system, training and education process management, inadequate staffing and people's resistance to change.

From Kornkaew's (2012) observation it can be inferred that User acceptance of information technology has a significant bearing on the success of an information system. The technology acceptance model (TAM) gives relationships between system design features, perceived usefulness, ease of use, attitude towards using and usage behavior (Venkatesh & Bala, 2008). Found the satisfaction was "the most crucial factor contributing to user intention to use" technology (Park & Kim, 2013). The intended information system user's attitudes towards information technology and systems will influence their acceptance of the systems being implemented. For example, if the information systems are viewed as a threat job stability of the individuals in an organization, and are not accepted, use could be forced but usefulness will not follow and performance will be impaired.

3.0 RESEARH METHODOLOGY

This study utilizes the Descriptive Quantitative research design and is a cross sectional survey. Multi-linear regression model was used in testing the study hypotheses. One or more of the Chief Officers in the target population was 486 ICT firms were the respondents. The primary data collection instrument was a structured questionnaire. From the data obtained descriptive and inferential statistics were extracted using SPSS and presented in respective tables.

4.0 RESULTS

4.1 Respondent and firm general information

The questionnaires requested the disclosure of the gender, age group and years of enjoyment of the respondents and the number of employees and turnover for the previous three years (2013, 2014 and 2015) of the firm. These factors may influence the decisions and expectations regarding implementation of information systems. Response was received from 75 firms. Where a firm responded to more than one questionnaire, the response from one of the chief officers was selected at random. These results are presented in Table 1

Table 1: General Firms and Respondent Information

Number of Staff		
Number of Staff	**Frequency**	**Percent**
Less than 5	13	17.3
5 - 10	28	37.3
10 - 15	15	20.0
15 - 20	7	9.3
Over 20	10	13.3
Missing Data	2	2.7
Total	75	100.0
2015 Turn Over in million shillings		
Turn over	Frequency	Percent
Less than 100	28	37.3

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100 - 300	10	13.3
300 - 500	6	8.0
500 - 700	4	5.3
Greater than 700	10	13.3
Total	75	100.0

Gender of Respondents

Gender	Frequency	Percent
Male	54	72.0
Female	21	28.0
Total	**75**	**100.0**

Over 74% of the firms in the study had less than 15 employees while 13.3% had over 20 employees. 13.3 % of the firms had a turnover of over 700 million shillings in 2015. The firms' chief officers were predominantly male at 72%. This means that ICT firms in Nairobi County are predominantly small enterprises with a turnover of less than 300 Million Shillings a year. The firms are run by lean staff numbers some having only one member of staff at the registered office at the time the questionnaires were presented.

4.2 Descriptive Analysis

The statements relating to user acceptance, the study sought to measure how well Information systems are accepted in the firm. This was done on a scale of 1 to 5 to what extent the respondents agreed with the statements. The results are presented in the Table 2.

Table 2: Descriptive Analyses – User Acceptance

User Acceptance									
Questionnaire Statement	**N**		**Extent to which the respondent agree**					**Mean**	**Std. Deviation**
			1	2	3	4	5		
IS are easy to use	74	f	0	3	15	40	16	3.93	0.764
		%	0	4	20	53.3	21.3		
IS have been designed for all levels of users	75	f	2	7	18	29	19	3.75	1.028
		%	2.7	9.3	24	38.7	25.3		
All staff have positive perception of IS applications	75	f	1	10	18	30	16	3.67	1.004
		%	1.3	13.3	24	40	21.3		
Aggregate								**3.81**	**0.68003**

As per Table 2, over 21% of the firms scored 5 on the three questionnaire statements. The ease of use had a mean score of 3.93. This was the highest in this section meaning that most firms implement Information systems with use of use as a key requirement.

From relatively high scores of the responses to User acceptance, a mean of 3.8056 and standard deviation of 0.68003 was derived. This indicates that IS are well accepted in the firms.

4.3 Regression Results

The study concluded that there is negative and statistically insignificant influence of User acceptance on the performance of ICT firms in Nairobi Count p = 0. 744, β_4 = -0.045

Table 3: Regression Results

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	1.505	.435		3.463	.001
System Acceptance	-.040	.123	-.045	-.328	.744
a. Dependent Variable: Organizational Performance					

4.4 Test of Hypothesis

Ho1 There is no relationship between User Acceptance and the performance of ICT firms in Nairobi county. p = 0. 744, β_4 = -0.045

The regression model in Table 4.10 shows that there is a weak negative relationship between User Acceptance and the performance that is statistically insignificant. The null hypothesis is accepted and concludes that there is no relationship between User Acceptance and the performance of ICT firms in Nairobi County.

User acceptance of Information system is derived from promotions of involvement in the IS life cycle which forestalls unrealistic expectations (Szajna & Scamell, 1993). This means that User acceptance is related to the internal management of the IS life cycle and does not have direct influence on the firms' performance in the dimensions of Return on Investment, Market share and process clarity.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study sought to gain information on the influence of User Acceptance on the performance of ICT firms in Nairobi County. The study found from the test of Hypothesis four that there was a weak negative relationship that was not statistically significant. As a factor of Information Systems in itself does not have a direct significant influence on performance (Obasan & Soyebo, 2012.).

5.2 Conclusions

The study concluded that there is no statistically significant influence of User acceptance on the performance of ICT firms in Nairobi County. It is related to the management of the IS file cycle than the overall organizational performance.

5.3 Recommendations

Since no statistically significance relationships were found between User acceptance, attention should be put on information systems improving process rather than the direct influence of performance this study recommends that firms should determine benefits other than the overall firm's performance upon which the resource allocation argument can be based. This would avoid the risk of having stakeholder expectations that cannot be matched by outcomes.

REFERENCES

Abugabah, A., Sanzogni, L., & Poropat, A. (2009). The impact of information systems on user performance: A critical review and theoretical model. *World Academy of Science, Engineering and Technology (WASET)*, 809-819.

Ali, B. M., & Younes, B. (2013). The impact of information systems on user performance: An exploratory study. *Journal of Knowledge Management, Economics and Information Technology*, *3*(2). 128-154.

Chen, D. Q., Mocker, M., Preston, D. S., & Teubner, A. (2010). Information systems strategy: Reconceptualization, measurement, and implications. *MIS Quarterly*, *34*(2), 233-259.

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, *3*(1), 60-95.

Gable, G. G., Sedera, D., & Chan, T. (2008). Re-conceptualizing information system success: The IS-impact measurement model. *Journal of the Association for Information Systems*, *9*(7), 1-32.

Kenya National Bureau of Statistics. (2015). *Kenya economic survey 2015*. Retrieved from https://www.knbs.or.ke/economic-survey-2015-2/

Kornkaew, A. (2012). *Management information system challenges, success key issues, effects and consequences: A case study of FENIX System* (Unpublished master's thesis). Jönköping University, Jönköping, Sweden.

Lipaj, D., & Davidaviciene, V. (2013). Influence of information systems on business performance. *Science–Future of Lithuania/Mokslas–Lietuvos Ateitis*, *5*(1), 38-45.

Obasan, K. A., & Soyebo, Y. (2012). Management information system as a catalyst to organizational performance in the 21st Century: A Study of selected banks in Nigeria. *American Journal of Business Management, 1*(1), 12-17.

Pérez-López, S., & Alegre, J. (2012). Information technology competency, knowledge processes and firm performance. *Industrial Management & Data Systems, 112*(4), 644-662.

Petter, S., DeLone, W., & McLean, E. (2008). Measuring information systems success: Models, dimensions, measures, and interrelationships. *European Journal of Information Systems*, *17*(3), 236-263.

Petter, S., DeLone, W., & McLean, E. (2013). Information systems success: The quest for the independent variables. *Journal of Management Information Systems*, *29*(4), 7-62.

Szajna, B., & Scamell, R. W. (1993). The effects of information system user expectations on their performance and perceptions. *Mis Quarterly*, *17*(4), 493-516.

Sedera, D., & Gable, G. (2004). *A factor and structural equation analysis of the enterprise systems success measurement model.* AMCIS 2004 Proceedings, Paper 94. Retrieved from https://pdfs.semanticscholar.org/f416/dadd2bdb19c479618b6b3a14a00a4f5d030e.pdf

Stair, R. M., & Reynolds, G. W. (2011*). Fundamentals of information systems*. Boston, MA: Cengage Learning.

Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, *39*(2), 273-315