

Empirical Evaluation of the Role of Horizontal and Vertical Integration on Performance of Public Organizations

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Abstract - Integration strategies has been evaluated within public organizations. The major change is that of Huduma services introduced country wide through Huduma centers at the postal corporation premises to enhance performance by ensuring there is transparency, efficiency and effectiveness towards the citizen's satisfaction. Despite the many benefits of integration strategies, scanty information exists regarding the role of horizontal integration on performance of public organizations. As such, this paper sought to empirically evaluate the role of horizontal and vertical integration on performance of public organizations. The study adopted descriptive survey design and the target population included 400 employees working in Huduma Centers, and clients of Huduma centers in Kisii and Nyamira. Stratified random sampling method was utilized by taking a simple random sample of the two groups of the population. A sample size of 200 respondents was used and data was collected using questionnaires. The data items were analyzed using descriptive statistics and the reliability of the research instruments was assessed using the test-retest method. The results were presented in tables and graphs. The research findings indicated that horizontal integration improved performance.

Keywords: Horizontal integration, vertical integration, performance, public organizations

I. INTRODUCTION

Integration is the alignment of technology, people, business and processes which has become crucial for survival of any organization especially if the organization needs to find a competitive edge in the current global economy. Huduma Kenya is a program by the Government of Kenya that aims to transform public service delivery by providing citizens' access to various public services and information from 'One Stop' shop. It provides efficient Government Services at the Convenience of the citizen, (Oyugi, 2015). The government aims at transforming the public service into a professional and customer-centered public service. Instead of one hoping from one office to another seeking for government services, service seekers get them from one office hence saving time and enhancing satisfaction, (Psc, 2014).

Through the Huduma Kenya platform, the government has enabled citizens to access integrated public services via their phones, computers and personal digital assistants (PDA). The new portal has enhanced service delivery and eradicated graft loopholes. Tenders and vacancies in the public service are also accessible on the platform. Users are able to directly post

their comments and complaints regarding government services. So far, the government has established 52 Centers in Kenya.

Integration concerns the fundamental rethinking and radical redesign to obtain dramatic and sustained improvements and innovation (Abdalla et al., (2015). The changing global business environment has also dramatically transformed the way public sector organizations operate. The globe market environment keeps on constantly changing making it imperative for organization to constantly adopt their activities in order to succeed. Various organizations change approaches and methods that have been developed to enhance performance of business making them more effective, efficient and responsive to the turbulent environment changes. One such change is business integration (Johnson et al., (2006). Global trends show that global competition for investment, budgetary constraints and raising customer expectations are critical factors in bringing public sector reforms.

The changing global business environment has also dramatically transformed the way public sector organizations operate. Consequently, new opportunities have emerged following elimination of old constraints. Central to public service delivery is the level of expectation of citizens. Customer expectations transcend economic status, methods of service delivery, funding methods and geographical boundaries. Business integration is a technique used to align the technical components of a company with its business goals in order to create a smoothly running system this ensures an efficiently functioning system for all business and IT activities processes, allowing two companies to easily share information and jointly drive shared business outcomes (Nigel, 2001).

The achievements of Integration benefits are considered not easy to achieve but there is substantial evidence that can be effective. The advantages of integration came from a combination of organizational changes and information technologies (Arman et al., 2016). Before an organization adopts integration strategies, it must fact determine whether there is a compelling business case to introduce the changes. The concept of integration cannot be reduced to process alone because its principles are applied in all parts of an organization. Every company can be seen as a process that

responds to customer needs by creating, producing, supplying and invoicing goods and services. Process integration is redesigning or reinventing how we perform our daily work, and it is a concept that is applicable to all industries regardless of size, type, and location, (Victor and Muturi, 2019).

The public sector in Kenya is faced with the challenge of poor and declining performance, which inhibits realization of sustainable economic growth. The Public sector has consistently fallen below expectations due to: excessive regulations and controls; frequent political interference; poor leadership; outright mismanagement; bloated staff establishments; multiplicity of principals and non-performing employees. Kenya's Vision 2030 calls for a results-oriented public sector to enable achievement of the milestones that were set. These results can only be achieved if the public sector adopts smart strategies and sets out proper strategy implementation processes (Kandie, 2001). These processes must make use of the resources the country holds so as to unlock its future. Technology implementation has been a dream since it has been completely ignored and there has been a lot of paper work and this delayed all the processes involved in terms of service delivery. They have been out-witted by the private sector that the citizens esteem highly in customer service delivery. But, this is no more as the government's introduction of Huduma Centers which are a one-stop shop for government services has provided a glimmer of hope for better government services (Consolata et al., 2018).

II. LITERATURE REVIEWED

According to Mwhiki (2016) integration involves a systematic critical examination of the existing ways of doing things in the organization with a view to developing easier and more effective methods of conducting business in order to make the functions faster more cost efficient and qualitative. Integration brings out weaknesses of the existing systems and attempts to restructure and re-engineer process and human resources at the departmental level strategically in order to maximize productivity.

Achieng (2014) did a study on the relationship between collaboration practices and the performance of Kenya Commercial Bank. The study aimed at exploring possible relationships between integration practices and organizational performance. The study concluded that integration has become useful weapon for any corporate organizations that is seeking for improvement in their current organizational performance and intends achieve cost leadership strategy in its operating industry. Rhys and Richard (2013) analyzed Collaboration on performance in public service, the impact of organization process in English local government public administration. The study indicated that performance of local authorities are facing the organizational challenges prior to onset of new structures and support the view that structural changes has significant effects on organizational performance. Muhammad (2014) analyzed the effects of region Collaboration on commitment to service performance in Makassar city. The main aim of the study was to investigate

the effect of implementing regional organizational collaboration and influence of commitment to service performance of public services in the city of Makassar. The findings showed that performance of organizations is influenced with collaboration. Restructuring and commitment significantly affect performance of services offered with different categories.

Kwaning et al., (2014) explored the impact of organizational collaboration on financial performance of public banks. The study used the case study design to explore the motivators and the impact of collaboration in the largest public banks. The study findings demonstrated that motivating state owned enterprises lies in the changes of the business environment, governance, strategic control and performance. Dongli (2013) examined the effect of vertical integration on organizational performance. The findings revealed that changes in the organization objectives, technological changes and restructuring factors influences decisions to performance.

Köppe and Phillip (2017) analyzed the one stop shop for job seekers in Ireland. The study analyzed the implementations of one stop shop for job seekers in Ireland in 2010-2016. The study indicated that the establishment of one stop shop strategy is related to benefit payment and activation services highly influenced by organizational policy levels. Fredriksson (2019) observed the effect of transforming the citizen experience using one stop shop strategy for public services. The study revealed that citizens and customer experience is influenced by interactions and experiences they have.

Abdalla et al., (2015) analyzed the effect of Horizontal integration in service delivery of Mombasa Huduma center. The study indicated that one stop shop has significantly enhanced service delivery in relations to reliability and customer satisfaction. Darko et al., (2016) analyzed Smart Practices of Horizontal integration in the Public and Private Sector Using Cloud Computing Technologies in Bucharest, Romania. The finding indicated that both public and private sectors has become very important as the key indicators (profits, market share and cash by redesigning organizational process and radical change in order to attain improvements. Friday et al., (2018) explored Horizontal integration strategies for occupational Health and Safety on employee's performance in Newcastle. The study findings revealed that management of change is essential, skills to facilitate the insertion of newly designed processes and structures into working practices and to deal effectively with resistance. Ahmed and Nadeem (2015) studied the impact of Horizontal integration on the Performance of Banks in Pakistan. The results demonstrated that the dimensions of Horizontal integration are reliable and valid. Orugbu et al., (2015) investigated the influence of Horizontal integration and Organizational Performance of Selected Automobile Firms in Southeast of Nigeria. The findings revealed that there is positive relationship between process redesign and performance, that work process innovation influences

performance and that custom excise duties influence organizational success.

III. MATERIAL AND METHODOLOGY

This paper adopted the descriptive survey design. This enabled quantitative techniques in collecting and analyzing information from a study sample as well as generalizing it to the population from which the sample was drawn. The study was conducted at Huduma centers in Kisii and Nyamira and it targeted 400 individuals were targeted in the study which were distributed. Stratified random sampling method was used by taking a simple random sample of the two groups. Stratified sampling technique was applicable to determine the sample of 200 (50% of the target population). The percentage was therefore used to determine the sample to be drawn from each category and strata. Regarding data collection, a structured questionnaire which contained both open ended and close ended questions was utilized to collect primary data.

IV. RESULTS AND DISCUSSION

This paper sought to determine the extent at which the respondents agree with horizontal integration to improve performance. The results obtained are shown in Table 1 below.

Table 1: Distributions According to Horizontal Integrations Strategy

	Mean	Std. Deviation
Shared objectives	3.08	1.257
Quality programs	3.22	1.220
Interactions within departments	3.36	1.199
Shared progress monitoring	3.54	1.351
Efficiency operations	3.08	1.302
Valid N (listwise)		

Source: Field Data (2019)

Based on the findings, the study showed that: Shared progress monitoring had a mean of 3.54 and standard deviation of 1.351, interactions within departments had a mean of 3.36 and standard deviation of 1.199, Quality programs had a mean of 3.22 and standard deviation of 1.220, shared objectives had a mean of 3.08 and standard deviation of 1.257, while Efficiency operations with a mean of 3.08 and standard deviation of 1.302. This implied that respondents were neutral concerning the aspects of horizontal integration put in place, all having a mean of 3 and SD of 1point. Regarding vertical

integration, this paper sought to determine the statements in Table 2 on vertical integration on performance.

Table 2: Distributions According to Vertical Integrations

	Mean	Std. Deviation
Backward integration	3.28	1.091
Forward integration	3.41	1.209
Network on customer care	3.30	1.217
Lead council planning	2.84	1.340
Valid N (listwise)		

Source: Field Data (2019)

It was also found that Forward integration was useful with a mean of 3.41 and standard deviation of 1.209, networks on customer care with a mean of 3.30 and standard deviation of 1.217, backward integrations with a mean of 3.28 and standard deviation of 1.091; lead council planning with a mean of 2.84 and standard deviation of 1.340. The study indicated that forward integration was best used while Lead council planning was the least. As for with performance, this paper determined the extent which the respondents agree with the statements in Table 3 on performance of organization.

Table 3: Distribution According to Performance

	Mean	Std. Deviation
Service delivery	2.90	1.315
Quality services	2.48	1.399
Client satisfaction	2.38	1.477
Quality programs	2.60	1.303
Business operations	3.36	1.244

Source: Field Data (2019)

The respondent indicated that: business operations was useful with a mean of 3.36 and standard deviation of 1.244, service delivery with a mean of 2.90 and standard deviation of 1.315, quality programs with a mean of 2.60 and standard deviation of 1.303, quality services with a mean of 2.48 and standard deviation of 1.399, client satisfaction, with a mean of 2.38 and standard deviation of 1.477. This indicated that business operations was most used parameter of performance while client satisfaction was the least considered. Regarding correlation analysis between horizontal integration variables, this paper sought to establish the relationship between horizontal integration variables and the results obtained are shown in Table 4.

Table 4: Correlation Analysis between Horizontal Integration Variables

		Shared Objectives	Quality Programs	Interactions within Department	Shared progress moni	Efficiency operations
SO	Pearson Correlation	1	.177*	-.040	.395	-.193*
	Sig. (2-tailed)		.016	.590	.000	.008
QP	Pearson Correlation	.177*	1	.710**	.619*	.071

	Sig. (2-tailed)	.016		.000	.000	.339
IWD	Pearson Correlation	-.040	.710**	1	.321	.242**
	Sig. (2-tailed)	.590	.000		.000	.001
SPM	Pearson Correlation	.395**	.619**	.321**	1**	-.115**
	Sig. (2-tailed)	.000	.000	.000		.120
EO	Pearson Correlation	-.193**	.071	.242**	-.115**	1
	Sig. (2-tailed)	.008	.339	.001	.120	

Source: Field Data (2019)

Table 4 the study showed that Quality programs related significantly and positively with quality programs and shared progress monitoring $r = 0.177$ $p = 0.016$ and $.395$ respectively while interaction within departments' correlated significantly with Quality programs, Efficiency operations and shared progress monitoring but the relationship was negative and insignificant with shared objectives $r = -0.040$ $p = 0.590$. share progress monitoring correlate positively and significantly with all other variables apart from efficient operations which was

negative and insignificant with $r = -.115$ $p = 0.120$, and Efficiency operations significantly related with interactions within departments but the relationship was negative with shared objectives and shared progress monitoring. In addition, as for correlation analysis between vertical integration variables, this paper sought to establish the relationship between vertical integration variables and the outcomes obtained are shown in Table 5.

Table 5: Correlation Analysis between Vertical Integration Variables

		Backward Integration	Forward Integration	Network on customer care	Lead council planning
BI	Pearson Correlation	1	.532**	.662**	-.138
	Sig. (2-tailed)		.000	.000	.062
FI	Pearson Correlation	.532**	1	.460**	.043**
	Sig. (2-tailed)	.000		.000	.558
NCC	Pearson Correlation	.662**	.460**	1	-.098**
	Sig. (2-tailed)	.000	.000		.185
LCP	Pearson Correlation	-.138	.043	-.098	1
	Sig. (2-tailed)	.062	.558	.185	

Source: Field Data (2019)

Depict the correlation between vertical integration variables. The study showed that lead council planning had a correlation $r = -.138$ with $p = .062$, forward integrations with correlation $r = .532$ and $p = .000$ and network on customer care with

correlation $r = .662$ and $.000$. This paper further sought to establish the correlation between integrated strategies and performance and the results obtained are shown in Table 6.

Table 6: Correlation Analysis between Integrated Strategies and Performance

		Vertical integration	Horizontal integration	Collaborations	Diversification	Performance
V integration	Pearson Correlation	1	-.082	.057	-.077	.170
	Sig. (2-tailed)		.265	.438	.299	.021
H integration	Pearson Correlation	-.082	1	.470**	.659	.250
	Sig. (2-tailed)	.265		.000	.000	.001
Performance	Pearson Correlation	.170*	.250**	.657**	.384*	1**
	Sig. (2-tailed)	.021	.001	.000	.000	

Source: Field Data (2019)

The results indicated that that there was a positive and significance relationship between vertical integration and performance. Vertical integration were associated positively but the relationship was insignificant, while the relationship with horizontal and diversification was negative and

insignificant. Horizontal integration had a positive and significant relationship and performance. As per the relationship between study variables, this paper employed multiple linear regression and the results obtained are shown in Table 7 below.

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig
(Constant)	.935	.286		3.274	.001
Vertical Integration	.118	.054	.121	2.165	.032
Horizontal Integration	-.028	.083	-.025	-.338	.736

Table 7 shows that β_0 was 0.935, β_1 was 0.118 while β_2 was -0.28 and fitting these values in the multiple linear regression, the following relationship was obtained.

$$Y = .935 + .118 X_1 - 0.028 X_2 + \epsilon$$

From the model it implied that holding other factors constant at 5% the level of significance, performance was .935. The study indicated that a unit increase in vertical integrations led to an increase in performance by 11.8% and it was significant $p \leq .05$ thus hypothesis H_{01} was rejected. Regarding horizontal integration, a unit increase in horizontal integration led to decrease in performance by 0.28%. The relationship was insignificant $p \geq .05$ and hence the hypothesis was upheld. This shows that vertical integration has significant effect on performance while horizontal integration at significant level of .736 has insignificant effect on performance.

V. CONCLUSION AND RECOMMENDATION

Based on the results, the study aimed to empirically evaluate the role of horizontal and vertical integration on performance of public organizations from the field findings, it was observed that quality programs was related significantly and positively related with interactions within the departments and shared progress monitoring while interaction within departments' correlated significantly with quality programs, Efficiency operations and shared progress monitoring, shared progress monitoring correlate positively and significantly with all other variables apart from efficient operations which was negative and insignificant and efficiency operations significantly related with interactions within departments but the relationship was negative with shared objectives and shared progress monitoring.

Regarding the relationship between vertical integration variables, it was established that backward integration had a positive effect followed by forward integration and common network integration and finally lead council planning. In addition, it was noted that forward integration was best used while lead council planning was the least. It was recommended that; client satisfaction is taken into consideration and that the existing integrated strategies have improved the Huduma performance but more strategies need to be deployed to increase the satisfaction level.

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