Influence of Organisational Resources on Performance of ISO Certified Organisations in Kenya

Patrick Omutia Otulia, PhD Candidate Prof. Isaac M. Mbeche, PhD Prof. Gituro Wainaina, PhD Dr. James Njihia University of Nairobi, Kenya

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Abstract

This study aimed at examining the influence of organisational resources on organisational performance of International Organisation for Standardization (ISO) certified organisations in Kenya. The study was based on Total Quality Management (TQM) theory. A cross-sectional research survey design was adopted. Primary data was collected from a sample of 282 ISO certified organisations by use of a questionnaire, and secondary data was obtained from financial statements of 27 ISO certified organizations sampled. Descriptive statistics was used to analyze proportions of the variables and multiple regression model was used to estimate the effect of organisational resources on the performance of ISO certified organizations. The findings show that abundant organisational resources reduce performance. The study, therefore recommends that the management of ISO certified organisations should employ limited organisation resources available efficiently and train their staff in managerial skills in order to improve performance of their organizations.

Keywords: Organisational Resources, Organizational Performance, ISO Certified Organizations

Introduction

Organisational Resources (OR) are people, materials and technologies (Mankiw, 1998), information (Dusenbery, 1992), capital and entrepreneurship (Nickles, McHugh & McHugh, 2002), needs (Gough, 1994) and expectations (Lazarus, 1991). The ever-extending reach of globalization, continuously rising productivity, growing complexity of information, expanded sensitivity of the environment, the swelling pace of technological innovation, the speedy rise in employee expectations and the competition for

closer partnerships are all increasing the demand for alternative organisational practices and the way of work (Cloke & Goldsmith, 2002). Innovation and adaptation are essential for survival in such increasingly complex, fast-paced, unpredictable economic environment. Organisations, therefore urgently need immediacy, responsiveness, agility, flexibility, and a heightened sensitivity to the subtle emergence of future trends and directions.

Organisational resources can be grouped into two categories; first, transformed resources which include materials available as well as information, this refers to state of changes to be undertaken because of

transformed resources which include materials available as well as information, this refers to state of changes to be undertaken because of conversion of the process. Second, transforming resources like equipment, buildings as well as employees, which assist in the process of transformation, however their condition remains intact due to the process of conversion (Slack, Chambers & Johnson, 2004). Based on argument of Naylor (1996), Operations Management (OM) is concern with operation, creation, as well as management of a system of transformation that allows the inputs of various resources which eventually gives outcomes such as products and services to satisfy clients, the essence of organisational performance. Goods and services, Moyo (2012) emphasizes, are produced using resources.

Organisation Performance (OP) is outputs usually represented by customer satisfaction, employee satisfaction, economic sustainability, social/environmental responsibility and public information. Performance is often identified with effectiveness and efficiency (Lusthaus, Adrien, Anderson, Carden & Montalvan, 2002) in the use of organisational resources and the achievement of organisational goals. March and Sutton (1997) extends performance to a wide range of research that seeks to understand organisations' competitive survival. Neely (2004) postulates that performance refers simultaneously to the action, the result of the action, and to the success of the result compared to some benchmark. Performance, therefore are a set of parameters that describe the process through which the various types of outcome and results are achieved. Most of the management science studies have measured performance using traditional financial measures thereby failing or ignoring to include non-financial and less tangible factors such as quality, customer satisfaction and employee morale (Kaplan & Norton, 1996). A general consensus exits that the financial measures are today still valid and relevant (Yip, Devinney & Johnson, 2009), but that these need to

but that these need to be balanced with more contemporary such as intangible and externally oriented measures.

Adopting ISO 9001 Quality Management System (QMS), a family of quality management and quality assurance standards and guides, developed by ISO in Geneva ensure that an organisation is managed in a systematic and visible manner in the quest to achieve its strategic business objectives. The

standards address the process rather than the goals (Padma, Ganesh & Rajendran, 2008). Certification is the process of assuring compliance with the standard (Rosenberg, 1976). It contributes to improved worker productivity, increased process efficiency, reduced errors, time saving, and access to real time information, data for decision-making, positive customer surveys and empowered workers. The development and certification of ISO quality assurance system helps boost TQM performance. Irvine (1991) points out that many companies seek registration to quality standard ISO 9000 to demonstrate that they are in control of their business and have proved it to a certification body. However, Whittington (1988) in his study was concerned that the failure to implement the standard for the right reason may prevent organisations from gaining potential benefits from the system (Kuo, Chang, Hung & Lin, 2009). Hung & Lin, 2009).

By June 2016, 1,060 organisations in different industries were ISO certified in Kenya through accreditation agencies like Kenya Bureau of Standards, Societie Generale de Surveillance and Bureau Veritas. The ISO certified organisations were chosen for a number of factors firstly, the certified organisations were chosen for a number of factors firstly, the manifestation of the organisational resources and organisational performance is expected to be more profound in ISO certified organisations than in any other population as ISO 9000 series sets out methods that can be implemented in an organisation to assure that the customer's requirements are fully met. Secondly, the variation in performance of the organisations, notwithstanding that they operate in the same macro environment perhaps explained by the organisational resources and organisational performance (Mishra, 2007). Thirdly, ISO certified organisations practice TQM because ISO requirements belong to a Total Quality (TQ) process, and finally, the choice of ISO certified organisations, as opposed to non-ISO certified organisations, is motivated by a desire to make the results generalizable.

Resource Organization and Performance Issues

Organisational resources affect organisational performance (Harris & Moran, 1979). Whereas ISO plays an important role in developing standards for both quality management and environmental management, ISO certified organisations in Kenya are challenged for lack of a comprehensive implementation guide, hence making it difficult for the organisations to operationalize resources more successfully. Due to not combining the various resources, organisations need to not only transform the whole system of management, but also have a comprehensive guide for practitioners (Gorecki, 1995; Hackman & Wageman, 1995). These organisations also continue to lag behind in converting resources to organisational performance due to the wrong reasons for seeking ISO registration (Kuo, et. al., 2009). The ISO 9000 quality management system does not actually promise to

improve quality but offers documentation tools that have the potential to

improve quality but offers documentation tools that have the potential to improve quality (DuPont, 1989).

There exist limited studies to identify the inherent limitations of organisational performance and it therefore calls for the need to examine resources against organisational performance (Okwiri, 2012). The results of another study by Nyangosi, Nyan'gau and Magus (2011) on managing institution amid information and computer technology, paradigms in Kenya, revealed that organisations are transforming their business from traditional mode of service delivery to technology-based delivery systems. The studies above provide input to conceptual and methodological aspects used in this study, therefore emphasizing their relevance in this study. The intention of this study was to ascertain the effect of organisational resources on organisational performance by answering the following question: "what influence do organisational resources have on organisational performance within ISO certified organisations in Kenya?"

TOM

This study anchored on the interest and TQM theories. Pound's interest theory (1919), as cited in Van Blerk, (1996), under sociological jurisprudence defined an interest as "a claim, a want, a demand of a human being or group of human beings which the human being or group of human beings seeks to satisfy and of which social engineering in a civilized society must therefore take account". The theory of Roscoe pounds contributed to performance of ISO certified organisations since it promotes the aspect of gaining maximally by ensuring that there is less friction as well as less waste of resources. Human expectations and their needs require to be satisfied to the maximum with less sacrifices (Kakada, 2012). However, the theory is in real sense giving the priority on public interest as compared to interests of individuals and therefore, upon strict interpretation, it might lead to elimination of individual's freedom. The theory advocates for the idea of social order which can be infused with a moral purpose, in which the acceptance of responsibilities, duties, and obligations justifies the assertion of rights (Beatty, 2013). Its purpose was "social engineering", the adjusting of relationships to meet prevailing ideas of fair play. According to Stigler (1972), regulation can be captured by incumbent organisations for self-preservation from competition. Pigou (1932) holds that regulation is supplied in response to the demand of the public for the correction of inefficient or inequitable practices. Regulation is assumed initially to benefit society as a whole rather than particular vested interest (Posner, 1974).

The TQM, itself a behavioral theory, primarily entails a change in an organisations' culture its norms, values and belief systems about how

organisations function; and a change in an organisations' political system-decision making processes and power bases (Tichey, 1983). Cameron (1995) in a study of automotive, electronics and educational institutions and Khurana (1994) in a study of the worldwide picture of color tube manufacturing industry found that organisations with strong quality cultures performed better than those without. The U.S. General Accounting Office (1991) in a study found that organisations that implemented the quality process advocated by the Malcolm Baldrige program coined on TQM principles experienced continuous improvement in performance indicators and exceeded the industry average in employee and customer-related indicators, operational and financial results.

TQM and ISO Certified Organizations

Philosophy, vision, strategy, skills, resources, rewards and organisation are the seven elements required for success in TQM (Ersoz, 1992). However, inadequacy or lack of resources leads to frustration. The TQM theory supported this study through the effect of organizational resources on organizational performance of ISO certified organizations in Kenya. The principles and tools of TQM ensure that management of ISO certified organisations perform with minimum organisational resources (Radin & Coffee, 1993). However, TQM has not delivered as expected largely due to implementation failures rather than the philosophy itself (Radin & Coffee, 1993). In addition, there was the difficulty in gaining a true understanding of the concept of customers or quality, and the importance of quality in business management (Japanese Union of Scientist and Engineers, 1997).

Using a cross-sectional descriptive survey, Juma (2014) carried out a research to test the relationship between organizational resources and corporate governance structures on performance of state corporations in Kenya. He used questionnaire to collect data from a sample of 95 state corporations. The results gotten from analysis done through multivariate and hierarchical regressions, show that there exist a statistically significant relationship between aggregated organizational resources and performance. Furthermore, Gakenia (2015) research was on organizational resources and performance mobile phone companies in Kenya. In order to achieve her objective, she employed the use of both explanatory and descriptive survey research designs, with a total population of interest of 381 respondents where a sample size of 170 respondents was drawn. Descriptive and inferential statistics were employed in data analysis. The findings revealed that there was a positive significant effect of human capital on performance of mobile phone companies in Kenya.

Cania (2014) in the study of the impact of strategic human resource management on organisational performance, investigated how much organisations appear competitive in the market through achieving the performance indicators. Further Cania investigated how important is the management of human resources in achieving organisational performance. The findings are that human resources through the skills, behaviors and attitudes would be expected to achieve the required performance in the organisation.

Conceptual Framework

The knowledge gaps highlighted in the empirical literature led to the development of the conceptual framework below (Figure 1) that was adopted to guide empirical research in answering the gaps identified from the review of conceptual and empirical literature. From the framework, organisational performance was the dependent variable, whereas organisational resource was the independent variable that influences the organisational performance. The studies established the relationship between organisational resources and organisational performance. The framework in Figure 1 supports this direct relationship between organisational resources and organisational performance.

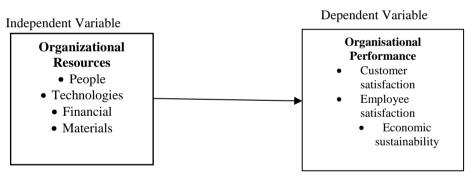


Figure 1: Conceptual Framework

Methods

This study used a positivism philosophy since it is directly associated with the idea of objectivism. This study used cross-sectional research design which was appropriate in giving a better understanding of the relationship between organization resources and performance. The population of interest was all 1,060 ISO certified organisations in Kenya accredited through Kenya Bureau of Standards, where a sample size of 282 organisations was drawn the target population by use of stratified random sampling technique. Primary was collected using semi-structured questionnaires and secondary by examination of records. Descriptive statistics was used to estimate the

proportions of the variables. Inferential statistics was used to determine the relationships between organisational resources and organisational performance.

The following regression model was used to estimate the effect of organization resources on performance:

$$Y = \beta_0 + \beta_1 X$$

Where Y is the organization performance and X is the organization resources, while βs are the coefficients estimated by ordinary least squares (OLS).

Findings

Descriptive Statistics

The findings indicate that 59.4 percent of the respondents were males and 40.6 percent were women. This implied that most information emanated from males and that there was inclusiveness in gender representation in the study. About 27.6 percent of the respondents indicated that they were in the senior management, 19.7 percent indicated that they were in the middle level management, 19.3 percent indicated that they were in the supervision, 17.7 percent were in the top management and 15.7 percent of the respondents indicated that they were in operational level of management. This implied that all the management hierarchy was fairly engaged in this research. Majority (96.1 percent) of the respondents indicated that their respective organizations had been in operations for over 15 years, 2.8 percent of respondents between 5 years and less than 10 years and 1.2 percent of the respondents between 10 and 15 years. This implied that they had adequate knowledge on the effects of organisational resources, values system and management capabilities on performance of ISO certified organisations in Kenya.

Table 1: Descriptive Statistics for Organisational Resources

		Mean	Standard		
Organisational Resources	Sample	Score	Deviation	Skewness	Kurtosis
There is adequate information in the organisation for decision-making	254	4.56	0.605	-1.021	0.029
Organisation embraces the use of technology	254	4.37	0.632	-0.480	-0.654
Organisation has adequate equipment and structures in good condition to meet its mandate	254	4.33	0.661	-0.490	-0.724
Organisation has access to adequate natural resources it needs	254	4.26	0.633	-0.281	-0.656
There is commitment to run the organisation based on values, ethics and integrity.	254	4.15	0.353	2.021	2.100
There is willingness to take considerable initiative and risk in use of the organisations' resources	254	4.06	0.467	0.188	1.544

There are adequate intangible assets to enable the organisation meet its	254	4.06	0.458	0.246	1.692
mandate Organisation has adequate number and mix of human resources to serve its	254	4.05	0.463	0.185	1.632
needs	25.4	4.04	0.420	0.200	2.662
Human needs form part of the sources of the organisation decisions making.	254	4.04	0.420	0.280	2.662
Organisation always considers what	254	4.00	0.000		
people require from it in decision-					
making					
Average scores	254	4.19	0.469	0.648	0.763

Source: Research Findings

An estimate of 69.3 percent of the respondents indicated that the firms from which they work had between 500 and 1,000 permanent employees and 30.7 percent indicated that they had between 100 and less than 500 employees. This implied that a majority of the respondents were from medium to large organisations. Majority (88.6 percent) of the respondents indicated that their organisations was private, and 71.7 percent of the organizations were in manufacturing sector; 9.1 percent in commercial and services: 5.5 percent were in agriculture sector; 3.9 percent were in education and research institutions; 3.5 percent were in telecommunications, technology and utilities; 2.8 percent were in energy and petroleum; while 2.0 percent were in the regulatory bodies sector. The results show that the respondents agreed that adequacy of information in the organisation for decision-making had highest mean score (mean score = 4.56, SD = 0.605). This implied that ISO certified organisations were very strong in terms of openness and transparency. The organisations embraced the use of technology (mean score = 4.37, SD = 0.632); organisations had adequate equipment and structures in good condition to meet its mandate (mean score = 4.33, SD = 0.661) and organisations had access to adequate natural resources it needed (mean score = 4.26, SD = 0.633).

In addition, the organisations are run based on values, ethics and

In addition, the organisations are run based on values, ethics and integrity (mean score = 4.15, SD = 0.353). There was willingness to take considerable initiative and risk in use of the organisations' resources (mean score = 4.06, SD = 0.467). There were adequate intangible assets to enable the organisations' meet their mandates (mean score = 4.06, SD = 0.458). Organisations had adequate number and mix of human resources to serve their needs (mean score = 4.05, SD = 0.463). Human needs formed part of the sources of the organisations' decisions making (mean score = 4.04, SD = 0.420) and that the organisations always considered what people required from them in decision-making (mean score = 4.00, SD = 0.000). The overall mean score was 4.19, which implied that ISO certified organisations in Kenya were strong in organisational resources. The spread about the mean

was low (coefficient of variation = 11.2 percent) and therefore more

was low (coefficient of variation = 11.2 percent) and therefore more consistent or less variable. From the study, skewness average score of organisational resources constructs was positively skewed (0.648) and was relatively near to zero, which clarified that the constructs were asymmetrical. Kurtosis values indicated that all the sub constructs have a flat peak (0.763).

The overall mean of ratios/factors used in this study to analyze the records gotten from secondary sources of ISO certified organisations are as displayed in Table 2 below. The table demonstrates the average number of observations of each factor/ratio as used in the study. The results on the Fulmer H score of ISO certified organisations indicates that the organisations were stable as they provided a mean Fulmer H score of 2.51 and therefore is considered to be fit since it is above the critical margin of zero. The overall estimation on efficiency of the return on capital employed in ISO certified organisations in Kenya, it is revealed that on average these organisation have a mean of 0.16 in capability of making profits from its capital employed.

Furthermore, the results on expense ratio indicate that on average, ISO certified organisations in Kenya use 0.79 of their resources in advertisement, management, administrative as well as any other expenses. The human resource effectiveness has a mean of 0.23 which could imply that in general the organisations spent less cost in hiring. The results also reveal a

The human resource effectiveness has a mean of 0.23 which could imply that in general the organisations spent less cost in hiring. The results also reveal a mean of 0.50 as the total assets that were being financed through debts and this shows that ISO certified organisations in Kenya have stable management position, particularly for those organisations that borrowed judiciously. The organisations were also found to cover their interest obligations on a mean of 20.14. In addition, the organisations estimated their capabilities of making cash required to counter current liabilities with a comprehensive liquidity index mean of 2.39.

Table 2: Summary Means of Ratios

Ratio Type	Mean Ratio
Fulmer H-factor analysis	2.51
Return on capital employed	0.16
Expense ratio	0.79
Human resource effectiveness	0.23
Debt ratio	0.50
Interest cover	20.14
Comprehensive liquidity index	2.39

Source: Research Findings

The study confirms the finding by Odhiambo (2017) in the study of the firms listed at the Nairobi Stock Exchange that managers judiciously finance some of their firm's assets with borrowed funds to benefit from debt holders monitoring to improve their firm's performance. He further confirmed that firms that use debt are better managed than those that avoid it due to the enhanced corporate governance and that debt disciplines managers which forces managers to take action that add value to the firm. He also categorized firms into-high debt usage having assets financed by 45 percent to 204 percent of debt, medium debt usage with 35 percent to 44 percent and low debt usage with 0 to 34 percent. Medium debt firms were found to outperform the others because use of debt alleviates agency costs to improve firm performance and managers and investors look at performance in determining amount to borrow or lend. The study also confirmed the works of Du Pont (1989), as cited in Shim, Siegel and Simon (2004) that organisation can raise shareholder return by employing leverage-taking on larger amounts of debt to finance growth. However, because financial leverage affects net profit through added interest costs, management must look at the various pieces of return on equity equation (net profit margin, total asset turnover and equity multiplier), within the context of the whole, to earn the highest return for shareholders. earn the highest return for shareholders.

Inferential Statistics

Inferential Statistics

The results of regression analysis are as shown in Table 3. The R-squared of 0.124, means that organisational resources explains 12.4 percent of the variations in performance. Analysis of Variance (ANOVA) F-test was used to test whether there was a significant relation between organisational resources and organisational performance. Since F-value was 35.595, p<0.001, it was concluded that the regression model was significant. From the data in Table 3, the estimated regression equation was OP = 5.713 - 0.360*OR, which meant that if organisation resources were increased by one unit, performance of ISO certified organisations would decrease by a factor of 0.360 units. The variable (organisations would decrease by a factor of 0.360 units. The variable (organisation resources) was statistically significant, with a t-value of -5.966 and p-value of 0.001, which was less than level of significance($\alpha = 0.05$) and the null hypothesis was thus rejected - organisational resources had a significant influence on organisational performance of ISO certified organisations in Kenya.

The study findings indicated that organisation resources had a significant influence though negative on the performance of an organisation since it seemed to decrease the performance of ISO certified organisations by a factor of 0.360. The significance level was less than 0.05. The findings of this study revealed two fundamental issues; this study supported the work of Sachs and Warner (1995) about the resource curse, that is, the paradox that organisations with an abundance of resources tend to have less economic growth/performance, less democracy and worse development outcome than organisations with fewer resources. However, this resource curse is not universal or inevitable, but affects certain types of organisations under certain conditions (Ross, 2015; Venables, 2016). Research suggests that the manner in which resources are used, the system of governance, institutional

quality, types of resources, innovation and investment in infrastructure and education and incentives available explain success and failures (Torvik, 2009; Baten, 2016). Therefore, if the resources are managed inefficiently or corruptly this can lead to disastrous results; this means lower productivity gains than before.

Table 3: Model Summary, Analysis of Variances and Coefficients for Organizational Resources and Organizational Performance

Model	1. Model Summary							
	R	R Square	Adjusted R	Std. Error of				
		1	Square	the Estimate				
	.352ª	0.124	0.120	0.18946				
	2. Analysis of Variances							
		Sum of Squares	Df	Mean Square	F	Sig.		
	Regression	1.278	1	1.278	35.595	0.000^{b}		
	Residual	9.046	252	0.036				
1	Total	10.324	253					
	3. Coefficients							
		Unstandardized		Standardized	T	Sig.		
		Coeff	ficients	Coefficients				
		В	Std. Error	Beta				
	(Constant)	5.713	0.253		22.553	0.000		
	Organizational resources	-0.360	0.060	-0.352	-5.966	0.000		
	a. Dej	pendent Vari	able: Organiza	tional performa	nce	•		
	b. Pro	edictors: (Co	nstant), Organ	izational resourc	es			

Source: Research Findings

On the other hand, where resources are used well, this supports the work of Teece, Pisano and Shuen (1997) where the source of an organisations' competitive advantage was its resources, its assets, competences, and capabilities. The study also found and confirmed that organisations ability to strategically use and deploy competences to achieve business objectives (Peppard & Ward, 2004) by satisfying customer needs such as cost, quality, flexibility and on-time delivery (Hatten & Rosenthal, 1999). The study also found and confirmed that physical capital, human capital, natural resources and technological knowledge determine productivity (Mankiw, 1998). Resource campaign and the infrastructure that supported and facilitated their extraction and delivery, guaranteed continued economic development, more so when supported by vast wealth, vast economic and political discipline (Moyo, 2013). Organisations grow when more resources are put into production, and when new technologies make the resources more productive (Kishtainy, 2014). Cloke and Goldsmith (2002) propose that successful democratic organisations require a context of values, ethics, and integrity. The TQM consists of values, techniques and tools

(Hellsten & Klefsjo, 2000). This study further reinforced the work by Hope and Hope (1996) which emphasized the importance of reducing unnecessary work by avoiding using more resources than necessary to add value to the organisation. Meisel (2014) confirmed this view by asserting that more is achieved by not squandering resources because doing less equals living more.

Conclusion and Recommendations

This study identified the relevant factors that are important in defining organisational resources (people, materials and technologies, information, capital and entrepreneurship, needs, and expectations), and organisation performance (customer satisfaction, employee satisfaction, economic sustainability, social/environmental responsibility and public information) in ISO certified organisations in Kenya and their relative importance. The study revealed existence of statistically negative relationship between organisational resources and organisational performance of ISO certified organisations in Kenya. The study concluded that when the resources of an organization are used appropriately, they can play a critical role in influencing performance of ISO certified organisations in Kenya. However, from the fact that the findings of this research revealed a negative relationship between organisational resources and organisational performance, it can be reasoned that better performance of organisations cannot be determined by the bulkiness of resources, but most likely by how well they are utilized in the process of meeting the organisations' goals. It can be implied that if the resources are oversupplied, they may lead to the reduction in the performance of organisations. Therefore, there is need for organisations to productively employ various organisation resources. This study contributed to the principles and tools of TQM since it revealed that the management of ISO certified organisations have potential of performing better when they utilize the available organisational resources appropriately. This was also supported by the results of Fulmer H score, which indicated that firms with fewer resources were found to perform better as compared to those that spent a lot on resources.

This study focused on the influence of organisational resources on performance of ISO certified organisations in Kenya. A further similar study should be conducted focusing on non-ISO certified organisations in Kenya and compare the results. This may help in understanding the causes underlying productivity in organisations and the challenges facing organisation resource conversion among organisations in Kenya. Furthermore, future studies should consider alternatives to the cross-sectional study using the quantitative approach that may be available. A

longitudinal research study using qualitative approach may be considered, given available time and financial resources.

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