THE JOINT EFFECT OF ORGANIZATIONAL RESOURCES, VALUES SYSTEM, MANAGEMENT CAPABILITIES ON PERFORMANCE OF ISO CERTIFIED ORGANIZATIONS IN KENYA

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ABSTRACT

ISO plays an important role in developing standards for both quality management and environmental management. However, ISO certified organizations in Kenya are faced with a challenge of having a comprehensive implementation guide, hence making it difficult for the organizations to operationalize resources more successfully. Due to lack of combination of various available resources, values system and management capabilities, organizations need to not only transform the whole system of management, but also have a comprehensive guide for practitioners. This research therefore, empirically examined the influence of organizational resources, values system and management capabilities on organizational performance. The research was guided by Total Quality Management (TQM) theory, as the anchor theory. The study adopted a positivism approach to philosophy and cross-sectional research design. The population of interest was all 1,060 ISO certified organizations accredited in Kenya from which a sample size of 401 organizations was drawn. Both primary and secondary data was collected by use of a questionnaire and available records respectively where a response rate of 90 percent was achieved. Data was then analyzed through descriptive and inferential statistics to summarize data in an understandable way. The findings revealed a positive effect of values system and management capabilities on the relationship between organisation resources and organizational performance. Organizational resources had a negative but significant influence on organizational performance. This revelation seem to have new and unique contribution to the knowledge gap unlike most of the studies reviewed which indicated that organizational resources have positive contribution to organizational performance. The overall findings revealed a joint significant effect of organizational resources, values system and management capabilities collectively on organizational performance of ISO certified organizations in Kenya, providing support to extension of the multi-disciplinary theories. The study therefore recommends that there is need
for the management of ISO certified organizations in Kenya to improve on their management capabilities and strengthen their values system as the study found that there was a positive relationship between management capabilities and values system on performance of ISO certified organizations in Kenya.

**Keywords:** Organisational Resources, Value Systems, Organizational Performance, Management Capabilities, ISO Certified Organizations, TQM.

**INTRODUCTION**

In management science, organizational resources, values system and management capabilities affect organizational performance (Harris & Moran, 1979; Ross, 2015; Studwell, 2013). These underlying behaviors are grounded on the complexity theory as a measurement proxy (Kock, Santalo & Diestre, 2012; Peterson & Zhang, 2011; Von Krogh & Roos, 1995). The methodology however creates a ‘black box’ of transformation hence the need to study values-based characteristics, which are rich measures of behavior (Dezs & Ross, 2012). Despite the great emphasis on the link between values system, management capabilities and organization performance, studies that have investigated resources are limited (Juran, 1986; Mankiw, 1998; Teece, Pisano & Shuen, 2007; Moyo, 2013; Kishtainy, 2014).

Whereas ISO plays an important role in developing standards for both quality management and environmental management, ISO certified organizations in Kenya faced a challenge of having a comprehensive implementation guide, hence making it difficult for the organizations to operationalize resources more successfully (Baten, 2016; Juma, 2014; Odhiambo, 2017). Due to not combining the various resources, values system and management capabilities, organizations need to not only transform the whole system of management, but also have a comprehensive guide for practitioners (Hackman & Wageman, 1995; Gorecki, 1995). These organizations also continue to lag behind in converting resources to organizational performance due to the wrong reasons for seeking ISO registration (Kuo, Chang, Hung & Lin, 2009; Özçelika, Aybasb & Uyargilc 2016; Venables, 2016). The ISO 9000 quality management system does not actually promise to improve quality but offers documentation tools that have the potential to improve quality (Carothers & Gramont, 2013; DuPont, 1989; Nalcaci & Yagcib, 2014).

Scholars recognize that values system and management capabilities matter but there are limited studies, which have examined the influence of values system and management capabilities on the relationship between resources and organizational performance (Beatty, 2013; Deming, 2010; De Villiers & Van Staden, 2011b; Gorenak & Košir 2012; Hammer & Champy, 2012; Ismail, Rose,
Uli & Abdullah, 2012). The studies may also not have adequately taken into account the intermediate role of values system and management capabilities on the relationship between resources and organizational performance. In particular, values system and management capabilities through commitment to values needs to be examined (Cloke & Goldsmith, 2002; Chiu & Chen, 2016; Gil-Padilla & Espino-Rodríguez, 2008; Hill & Wetlaufer, 1998). Studies have not measured transformation, but instead inferred them from TQM characteristics (Hambrick, 2005; Osisioma & Nzewi, 2016). Scholars have linked resources to organizational performance (Ismail, Raduan, Uli & Haslinda, 2012; Li & Gakenia, 2015) but most of these studies have measured organizational performance using the traditional financial measures hence the need to explore use of contemporary performance measures.

There exist limited studies locally which identify the inherent limitations of organizational performance and it therefore calls for the need to examine resources against organizational performance (Okwiri, 2013). Gatimu (2008) did a study on the strategic benefits and challenges faced by manufacturing firms in the adoption of ISO 9000 quality management systems in Kenya. Mbeche, (2010) while considering the huge public and private investment on institutions of higher learning, argued that there was an urgent need to evaluate how effectively the investment is utilized by examining the quality of the processes being undertaken to check on quality systems infrastructure, the cadre of qualified personnel and other resources in place. 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.

Most of the studies summarized above were done in developed countries. It was necessary to undertake a study in Kenya, which is in a different environment. Hope and Muehleman (2001) concluded that national culture influences management behaviour, so that management differs from nation to nation. Flynn and Saladin (2006) supported this view and held that national culture has a significant effect on the implementation of performance excellence. Pike and Barnes (1994) in their study also found that every organization is different with characteristics and cultures of their own which are a product of a unique combination of different variables.

Methodologically, previous studies have focused mainly on the direct effect of organisational resources on organisational performance. This study, therefore seeks to contribute to the management science field by addressing the various unresolved issues or research gaps that are eminent such as incorporating the intervening and moderating effect of management capabilities and values system that warrants the need for this study. In bridging this gap, the study sought to
ascertain the effect of organizational resources on organizational performance by answering the following question: “what are the influences of values system and management capabilities on the relationships between organizational resources and organizational performance in ISO certified organizations in Kenya?”

THEORETICAL REVIEW

The TQM, a part of OM, is a transformation system and is itself the desired culture of an organization committed to customer satisfaction through continuous improvement (Goetsch & Davis, 1994; Kanji, 1990; Cameron & Sine, 1999). The TQM principles, concepts and practices are on close examination similar to the values and principles of governance stipulated under Article 10 of the Constitution of Kenya (Cok) 2010 (Raiborn & Payne, 1996; Government of Kenya (GoK), 2010). This provision of the constitution contains human values that are universal. These values provide a means to focus on goal setting in society including organizations. Thus, organizations are obliged to make these values concrete and tangible for people so that they can relate to them and blend them in their daily life, to retain their very purpose of existence.

Human values have a longer historical standing than modern day business management principles like TQM (Ainin, Salleh, Bahri & Faziharudean, 2015; Srinivasan, 2005; Wilden, Gudergan & Lings, 2016). The key to organisational success therefore is to recognize TQM as a driving force behind organizational changes by developing their culture to match that embraced in TQM and the CoK 2010 (Pike & Barnes, 1994; Omutia, 1995; Kiruthu, 1996; Mbeche & Omutia, 1997). Thus, under this constitution 2010, organizations especially ISO certified in Kenya need an appropriate culture that conforms to the constitution 2010, supports business excellence and have a means to monitor the change process. To this extent, therefore values system and management capabilities, as cultural artifacts, influence the relationship between organizational resources and organizational performance. Due to the multi-disciplinary nature of OM, this study anchors on five theories; interest’s theory, stakeholder theory, complexity theory, behavioral operations theory and TQM theory.

In the quality management essence, the managers who deal with quality management of ISO certified institutions in Kenya should ensure maximum customer satisfaction in terms of quality products and services given on market. This can also come about through involvement and empowerment of their employees to enhance and maintain goods and services of better quality (Jørgensen & Nielsen, 2013). Therefore, to achieve such performance level, the organizations’ employees should focus more on identification of customers’ wants/expectations, and should have good understanding of organizations’ plans that can assist in achievement of their aims. The
TQM theory benefited this study through the joint effect of organizational resources, values system and management capabilities on organizational performance of ISO certified organizations in Kenya.

CONCEPTUAL FRAMEWORK

The knowledge gaps highlighted by this study 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, organizational performance was the dependent variable, whereas organizational resource was the independent variable that influences the organizational performance and values system are attributes analyzed as the moderating variable on the relationship between organizational resources and organizational performance.

The relationship between organizational resources and organizational performance depends on the value of the moderator. Values system explains changes in the strength or direction of the relationship between organizational resources and organizational performance rather than why the relationship exists. The theorized relationship between the organizational resources and organizational performance exists only when moderating variable is present (or absent). Management capabilities was the intervening variable that comes between the organizational resources and organizational performance and explains all or part of the relationship between the two and helps explain the influence of resources and organizational performance.

The framework in Figure 1 below supports direct relationship between organizational resources and organizational performance. The framework further proposes that the relationship between organizational resources and organizational performance is intervened by management capabilities and moderated by the values system. This is the relationship that has not been established which this study sought to investigate.
MATERIALS AND METHODS

The study adopted an epistemological rather than ontological approach to philosophy. Epistemology consisted of three paradigms: positivism, interpretism and realism. Therefore, this study used a positivism point of view which was directly associated with the idea of objectivism. Cross-sectional research design was employed in the research. The population of interest was all 1,060 ISO certified organizations in Kenya accredited through Kenya Bureau of Standards, Societe Generale de Surveillance and Bureau Veritas as at June 2016. These organizations belong to different industries/sectors. The sectors were aligned in the following order: (a) Agriculture; (b) manufacturing; (c) education and research institutions; (d) regulatory bodies; (e) telecommunication, technology and utilities; (f) financial institutions; (g) energy and petroleum; (h) hospitality and tourism; while (i) commercial and services. A sample size of 401 organizations was chosen to participate in the study.
A stratified random sampling technique was employed in picking the ISO certified organizations. Primary and secondary data was used in this study and both types of data were quantitative in nature as they complemented each other. The data was collected using semi-structured questionnaires and by examination of available records. Data was analyzed descriptively where secondary data was based on the financial ratios which included liquidity, solvency, activity, profitability and bankruptcy ratios. Inferential statistic was used to determine the relationships between organizational resources, values system, management capabilities and organizational performance as well as testing the hypotheses.

**RESEARCH FINDINGS**

**Output of Secondary Data**

Table 1 gives a summary of the main ratios of factors used to gauge organizational resources, values system and management capabilities on performance of ISO certified organizations in Kenya. 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 organizations indicates that the organizations 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 ROCE in the ISO certified organizations in Kenya, it is revealed that on average these organization have a mean of 0.16 in capability of making profits from its capital employed. Return on Investment had an average ratio of 0.06, and return on Equity provided a mean ratio of 0.14. The mean score for net profit margin of the ISO certified organizations in Kenya was 0.15. Furthermore, the results on expense ratio indicate that on average, ISO certified organizations 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 organizations 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 organizations in Kenya have stable management position, particularly for those organisations that borrowed judiciously.
### 4.37: Summary Means of Ratios

<table>
<thead>
<tr>
<th>Ratio type</th>
<th>Mean Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulmer H-factor analysis</td>
<td>2.51</td>
</tr>
<tr>
<td>Return on capital employed</td>
<td>0.16</td>
</tr>
<tr>
<td>Return on Investment</td>
<td>0.06</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>0.14</td>
</tr>
<tr>
<td>Net Profit margin</td>
<td>0.15</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>0.79</td>
</tr>
<tr>
<td>Human resource effectiveness</td>
<td>0.23</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>0.50</td>
</tr>
<tr>
<td>Interest cover</td>
<td>20.14</td>
</tr>
<tr>
<td>Current ratio</td>
<td>2.81</td>
</tr>
<tr>
<td>Comprehensive liquidity index</td>
<td>2.39</td>
</tr>
<tr>
<td>Quick ratio</td>
<td>2.62</td>
</tr>
<tr>
<td>Total Assets turnover</td>
<td>0.71</td>
</tr>
<tr>
<td>Accounts receivable turnover</td>
<td>50 days</td>
</tr>
<tr>
<td>Inventory turnover</td>
<td>11 days</td>
</tr>
<tr>
<td>Accounts payable turnover</td>
<td>106 days</td>
</tr>
</tbody>
</table>

Source: Research Data (2018)

The organizations were also found to cover their interest obligations on a mean of 20.14. In addition, the overall mean of the current ratio is 2.81 and that the organizations estimated their capabilities of making cash required to counter current liabilities with a comprehensive liquidity index mean of 2.39. Similarly, organization demonstrated an ability to pay back their current liabilities in full as they provided a mean quick ratio of 2.62 which is a far beyond the required threshold of critical value of less than 1. The average total asset turnover of the ISO certified organizations in Kenya 0.71. On average, ISO certified organizations in Kenya collect from their debtors within 50 days and turn over their inventory within 11 days. The settlements of accounts payable turnover were carried within an average of 106 days.
INFERENTIAL STATISTICS

The study sought to determine the joint effect of organizational resources, values system and management capabilities on ISO certified organizations’ performance. This was done through use of stepwise multiple linear regression analysis as indicated in Tables 2, 3 and 4. The results reveal that the joint effect of organizational resources, values system, management capabilities explain 78.5 percent of the variation in ISO certified organizations’ performance ($R^2 = .785$). The results show that 33.6 percent of the variation in ISO certified organizations’ performance is contributed by organization resources ($R^2 = 0.336$). In addition, 40.2 percent of the variation in ISO certified organizations performance was brought about by the addition of management capabilities while values system contributed a further 4.7 percent.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.580a</td>
<td>.336</td>
<td>.333</td>
<td>.15438</td>
<td>.336</td>
<td>114.514</td>
<td>1</td>
<td>226</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.859b</td>
<td>.738</td>
<td>.736</td>
<td>.09723</td>
<td>.402</td>
<td>344.722</td>
<td>1</td>
<td>225</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>.886c</td>
<td>.785</td>
<td>.782</td>
<td>.08827</td>
<td>.047</td>
<td>49.035</td>
<td>1</td>
<td>224</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Organizational resources
b. Predictors: (Constant), Organizational resources, Management capabilities
c. Predictors: (Constant), Organizational resources, Management capabilities, Values system
d. Dependent Variable: Organizational performance

Source: Research Data (2018)

The results, further, show that the joint influence of the variables strengthened the model. Initially organizational resources had an explanatory power of 33.6 percent. Addition of management capabilities to the model increased the explanatory power of organizational resources by 40.2 percent. Management capabilities play a critical role as they positively influence ISO certified organizations’ performance. The addition of values system contributed 4.7 percent. This implies that values system is integral in ISO certified organizations’ performance as it is not enough for management of ISO certified organizations to have organizational resources without values system.
Table 3: Analysis of Variances- Joint Effect of the Predictor Variables on International Organisation for Standardization Certified Organizations’ Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.729</td>
<td>1</td>
<td>2.729</td>
<td>114.514</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>5.387</td>
<td>226</td>
<td>.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.116</td>
<td>227</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>5.989</td>
<td>2</td>
<td>2.994</td>
<td>316.700</td>
<td>.000c</td>
</tr>
<tr>
<td>Residual</td>
<td>2.127</td>
<td>225</td>
<td>.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.116</td>
<td>227</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>6.371</td>
<td>3</td>
<td>2.124</td>
<td>272.553</td>
<td>.000d</td>
</tr>
<tr>
<td>Residual</td>
<td>1.745</td>
<td>224</td>
<td>.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.116</td>
<td>227</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational performance
b. Predictors: (Constant), Organizational resources
c. Predictors: (Constant), Organizational resources, Management capabilities
d. Predictors: (Constant), Organizational resources, Management capabilities, Values system

Source: Research Data (2018)

The ANOVA results show that the joint influence of the study variables is statistically significant. There was an improvement in F-value from 114.514 (1,226) in the first model that only had one variable to 272.553 (2,224) in the joint model at p < .001.
Table 4: Coefficients - Joint Effect of the Predictor Variables on International Organisation for Standardization Certified Organizations’ Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6.705</td>
<td>.232</td>
<td>28.934</td>
</tr>
<tr>
<td></td>
<td>Organizational resources</td>
<td>-.591</td>
<td>.055</td>
<td>-.580</td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>1.054</td>
<td>.338</td>
<td>3.124</td>
</tr>
<tr>
<td>2</td>
<td>Organizational resources</td>
<td>-.259</td>
<td>.039</td>
<td>-.255</td>
</tr>
<tr>
<td></td>
<td>Management capabilities</td>
<td>1.000</td>
<td>.054</td>
<td>.712</td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>-2.069</td>
<td>.541</td>
<td>-3.824</td>
</tr>
<tr>
<td></td>
<td>Organizational resources</td>
<td>-.341</td>
<td>.037</td>
<td>-.335</td>
</tr>
<tr>
<td>3</td>
<td>Management capabilities</td>
<td>1.110</td>
<td>.051</td>
<td>.791</td>
</tr>
<tr>
<td></td>
<td>Values system</td>
<td>.709</td>
<td>.101</td>
<td>.256</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational performance

Source: Research Data (2018)

From the above regression equation, it was revealed that holding organization resources, management capabilities and values system to constant zero, performance of ISO certified organizations would reduce by 2.096. A unit increase in organization resources would lead to decrease in the performance of ISO certified organizations by a factor of 0.341. A unit increase in management capabilities would lead to increase in performance of ISO certified organizations by factors of 1.010 and a unit increase in values system would lead to increase in performance of ISO certified organizations by a factor of 0.709. All the variables (Organization resources, management capabilities and values system) were statistically significant, with management capabilities recording a higher beta (beta = 0.79, p <0.001) than the organization resources (beta = -0.34, p <0.001) and values system (beta = 0.26, p <0.001) and t values 21.615, -9.127 and 7.003 respectively.
CONCLUSION AND RECOMMENDATIONS

The study concludes that there is a significant relationship of organizational resources, values system and management capabilities on organizational performance of ISO certified organizations in Kenya. This indicates that better organizational resources practices, appropriate values system and suitable management capabilities, will jointly enhance organizational performance. The theoretical implication of this study is that it supports and extends the multi-disciplinary theories of organizational performance by illustrating the need for systematic management of resources and capabilities to attain organizational performance. The results of this study add to existing knowledge in the area of organizational resources, management capabilities, and values system and organizational performance. This study identifies the relevant factors that are important in defining organizational resources, values system, management capabilities and organisation performance in the ISO certified organisations in Kenya and their relative importance. The study also employed a combination of both primary and secondary data which acknowledges high quality research output. This combination also controls for biasness that may exist given the fact that secondary data can ably back up the primary data. In any organization, top management leadership is a necessary condition to improve and transform its management systems. The TQM can be used as a method to materialize high organizational ideals (akin to the values and principles in Article 10 of the Kenyan constitution). In addition, organizations need to further enhance their aggregate resources, especially physical and human resources. They should also encourage healthy teamwork among their employees and adopt key performance indicators (KPI) in their operations. Strengthening the organizations' networking or interactions with their stakeholders is also important.

There is need for organizations in Kenya to productively employ various organization resources use strategies as it was found that organization resources influences the performance of ISO certified organizations in Kenya. Management as well as the owners of the ISO certified organizations in Kenya must stand strong as far as management capabilities (management, organisation culture, structure, processes, systems and integration) are concerned since these have been seen as the conduits to enhance the relationship between organizational resources and organizational performance. Though values system did not have any variation on the relationship between organizational resources and organizational performance, management of ISO certified organizations should try to elevate observance of the rule of law. This is because law has been seen as a unique resource and a key driver of social engineering. There is need to strengthen values system among the ISO certified organizations in Kenya as it was found that values system positively affect the relationship between organization resources and organizational performance.
in Kenya. Regulators should insist on TQM among ISO certified organisations and those that are not to ensure quality and value. The regulatory organisations should seriously continue to do the supervisory guidance of the organisations since they are charged with both regulation and supervision. There is need for Government to develop and implement policies that encourage adoption of values system espoused in this study. Having established the link between CoK and TQM, the need to come up with a viable method to materialize the values and principles contained in article 10 among organisations is paramount.

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