Influence of Strategic Coordination capabilities on Performance of Manufacturing Firms in Kenya

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ABSTRACT: The study aimed at establishing the influence of strategic coordination capabilities on performance of manufacturing firms in Kenya. This study used descriptive survey design to establish the relationship between strategic coordination capabilities and performance of manufacturing firms in Kenya. The target population consisted of 513 manufacturing firms. The study used a sample size of 225 respondents. Stratified random sampling technique was used to select the sample within the target population. The collection of primary data was through self-administered questionnaires where the measure of validity of the instrument will be through content validity and reliability will be tested using Cronbach’s alpha. Data was then analyzed using descriptive statistics and inferential statistics where data was coded and descriptive statistics generated using SPSS. Regression results revealed that strategic coordination capabilities had a positive and significant effect on performance of manufacturing firms in Kenya. This means that an increase in strategic coordination capabilities led to an improvement in performance of manufacturing firms. The study recommended that company’s strategy should emphasize coordination of the various departments. Business functions such as marketing, sales, etc. need to be integrated in serving the needs of the target markets.

Keywords: Strategic coordination capabilities, performance, manufacturing firms

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I. INTRODUCTION

According to Dubihlela (2013) strategic organizational capabilities help to build up capabilities the firm may use to differentiate itself in the market in order to achieve customer satisfaction. They are very important, particularly in the dynamic business environment with volatile markets and the environmental uncertainties. The ability to change, harness and develop new organizational capabilities to counter and control the dynamic business environment form the basis for sustainable competitive advantage for firms (Eisenhardt & Martin, 2010). The capabilities allow the managers to cost effectively exploit the available opportunities in the market and to neutralize the threats in the external environment (Pearce et al, 2012). Similarly, the firm capabilities enable the firm to adjust its competencies to adapt to the environmental changes (Teece et al, 2007).

Murgor (2014) noted that firm capabilities particularly the human resources, manufacturing technology and marketing influences the kind of strategic response taken by the management teams. According to Nyangi, Wanjere, Egessa and Masinde (2015) in their studies found a correlation between organizational capability and performance of sugar manufacturing firms. However the researchers recommended that further study be carried out on the relationship between strategic organizational capability and performance of firms since it is an area that is not fully focused on and is still insufficiently implemented. Likewise there are some gaps in developing economies of Asia and African continents (Kumar et al., 2011). Manufacturing firms within Kenya are not exceptional as they also compete both locally and internationally hence should exploit their strategic organizational capabilities to enhance their competitive advantage and survive the market volatility and uncertainties (Gitau, Mukulu & Kihoro, 2015; Kapto & Njeru, 2014). The capabilities are examined based on the firm’s strengths and weaknesses in managerial, marketing, financial and technical areas to determine whether the firm has the strengths necessary to handle the specific forces in the external environment and to enable management to identify the external threats and take advantage of the opportunities (Saini & Mokolobate, 2011).

In India, Brahmane (2014) indicated that implementation of organization capabilities has aid in solving bottlenecks between business to business (B2B). The model of organizational capability and market share as business performance outcome proposed is one of the useful platform to understand organization capability with strategic implication. In a multivariate analysis of survey responses of 102 firms belonging to supporting industries in Vietnam indicates that the organizational capabilities are related to the performance (Nham &
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Takahashi, 2010). While in Malaysia, a study conducted by Alimin, Raduan and Abdullah (2012) among manufacturers revealed that organizational capabilities are a vital cog in the relationships among organizational resources and competitive advantage because organizational capabilities enhance the resource elements towards attaining competitive advantage

Muhura (2012) found that strategic capabilities gave Airtel Kenya a competitive advantage over the other mobile companies. The study adopted the following dimensions of strategic capabilities: human resource, physical infrastructure and the distribution network, strong brand, technology, market research, innovation and manpower development and talent nurturing. Organizational capability had a partial mediating effect on the relationship between quality management practices and performance while Muganda and Fadhili, (2013) revealed there is need to build organizational capability and a framework that recognizes the key drivers that underlie the development of off- Shore success in IT industry in Kenya.

Kenya’s manufacturing industry is largely agro-based and considered by the lesser assessment addition, hire and capability operation and transfer capacities somewhat due to fragile linkage to other segments (Ngui, 2008). The intermediary and investment imports industries are comparatively undersized, indicating that the country’s manufacturing sector is largely import-dependent (World Manufacturing Production, 2014).

II. THEORETICAL REVIEW

2.1.1 Knowledge Based Capability Theory

In this study, the knowledge based capability theory is linked to the influence of knowledge management capabilities. Knowledge is embedded and carried through multiple entities including organizational culture and identity, policies, routines, documents, systems, and employees. Originating from the strategic management literature, this perspective builds upon and extends the resource-based view of the firm (RBV) initially promoted by Day (2011) and later expanded by others (Wernerfelt 1984; Barney 1991).

The transfer of knowledge within organizations is not a trivial problem as the same complex technologies that are proof against imitation are also difficult to codify and teach to others (Kogut & Zander, 2013). External knowledge transfer challenges include different levels of knowledge transfer abilities between alliance partners, where those more effective at transferring knowledge outperform those less adept (Dyer & Singh, 2008). Knowledge is embedded and carried through multiple entities including organizational culture and identity, policies, routines, documents, systems, and employees. Originating from the strategic management literature, this perspective builds upon and extends the resource-based view of the firm (RBV) initially promoted by Penrose (1959) and later expanded by others (Wernerfelt 1984; Barney 1991).

Knowledge is a key intangible resource that is the primary source of a sustainable competitive advantage (Acedo et al., 2006). The role of the firm is not simply to acquire an assortment of resources and capabilities, but rather to develop its organizational knowledge to produce a sustainable competitive advantage (Grant, 2016). The primary task of management is then to devise and establish routines necessary to integrate this knowledge (Grant, 2016). The knowledge-based theory rests on the assumption that resource and capability-based advantages are derived from superior access to and integration of specialized knowledge (Grant, 2016).

Knowledge is created and held by individuals, but can become embedded within the organization as organizational processes and routines are performed repeatedly (Conner & Prahalad, 2006). These organizations
can be considered social communities in which individual and social expertise and knowledge is transformed into valuable products and services (Kogut & Zander, 2013).

Firms can, therefore, be viewed as bundles of knowledge, where knowledge is an asset that serves as a source of differentiation and competitive advantage (Dierickx & Cool, 2009). Two critical knowledge processes in firms associated with the bundling of knowledge are creation and transfer (Krogh et al., 2001). The transfer of knowledge within organizations is not a trivial problem as the same complex technologies that are proof against imitation are also difficult to codify and teach to others (Kogut & Zander, 2013). External knowledge transfer challenges include different levels of knowledge transfer abilities between alliance partners, where those more effective at transferring knowledge outperform those less adept (Dyer & Singh, 1998).

III. METHODOLOGY

This study used descriptive survey design to establish the relationship between strategic technological capabilities and performance of manufacturing firms in Kenya. The target population consisted of 513 manufacturing firms. The study used a sample size of 225 respondents. This research incorporated two sampling techniques, simple random sampling and stratified sampling. Stratified random sampling was accepted since the population is heterogeneous; hence the population was divided into homogenous strata in order to enable sampling to be conducted separately in each stratum. The study used structured questionnaires to collect data. The selection of questionnaires was based on the nature of the data to be collected. The questionnaire had both open ended questions and closed questions. Open ended questions for detailed information and closed ended questions on facts about variables.

Data was collected with the help of research assistants since the research is covering a wide area. The researcher collected data from employees using self-administered questionnaires. The pilot study covered 22 respondents representing 10 percent of the target population but not included in the sample. Mugenda and Mugenda (2011) recommends between 1 and 10 percent of the actual sample size. The study used content validity. The study also employed Cronbach’s alpha to verify the internal consistency of each construct in order to achieve reliability. The result of 0.7 and above implied acceptable level of internal reliability. A pilot study was useful in testing research instrument reliability.

Descriptive statistics analysis were conducted to provide an overview of the sample through demographic details of the participating respondents including measure of central tendencies, standard deviation, range, variance among others while inferential statistics helped in measuring the relationship and difference among variables. It included correlation analysis and regression analysis which were important in the test of multi-collinearity and autocorrelation. Data was analyzed using descriptive statistics and were coded using Statistical Package for Social Sciences (SPSS). Multi-collinearity of variables were tested by using the tolerance value with tolerance level of more than 0.1 and variance inflation factor (VIF) with a tolerance level of less than 10 (Ramakrishnan, 2013). Multiple regressions were used to determine the ability of independent variables to predict the dependent variable.

IV. RESEARCH FINDINGS AND DISCUSSIONS

4.1 Response Rate

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>170</td>
<td>75.56%</td>
</tr>
<tr>
<td>Unreturned</td>
<td>55</td>
<td>24.44%</td>
</tr>
<tr>
<td>Total</td>
<td>225</td>
<td>100%</td>
</tr>
</tbody>
</table>

The number of questionnaires that were administered to employees of manufacturing firms in Nairobi, Kenya was 225. A total of 170 were properly filled and returned. This represented an overall successful response rate of 75.56% as shown on Table 1. This agrees with Babbie (2004) who asserted that return rates of 50% are acceptable to analyse and publish, 60% is good and 70% is very good. Based on these assertion 75.56% response rate is adequate for the study.

4.2 Demographic Information

4.2.1 Duration of Employment

The respondents were asked to indicate the duration they had worked on the manufacturing firm.
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Figure 1: Duration of Employment

The results in figure 1 revealed that 43% of the respondents had worked in the manufacturing firm for 4 – 8 years, while (28%) of the respondents had worked in the manufacturing firm for more than 4 years. The results also showed that 20% of the respondents had worked in the manufacturing firms for 2-4 years while only 9% had worked in the manufacturing firms for less than 2 years. This implies that most employees had worked in the manufacturing firms for a good number of years and therefore they had the relevant skills to improve the performance of the firm.

4.2.2 Level of Education
The respondents were asked to indicate their level of education. The results are shown in figure 3

Figure 2: Level of Education

The result in Figure 2 revealed that majority of the respondents (49.1%) had a bachelor’s degree, (14.2%) were at postgraduate with a master’s degree, (8.3%) had a PhD degree while (5.3%) of the respondents indicated that they had certificate qualifications. This implies that most employees in manufacturing firms are educated and thus has the capacity it boost the organizational performance.

4.2.3 Age of the firms
The respondents were asked to indicate the age of their firms/organization. The results are shown in figure 4.
The results in Figure 4 showed that majority of the manufacturing companies (40%) are between 21-40 years and 41-60 years, (11%) of the respondent indicated that their firm’s age was below 20 years while (9%) of the respondent indicated that their firm’s age was over 60 years.

**4.2.4 Subsector of the Firm’s Operation**

The respondents were asked to indicate the subsector in which their firm operates. The results are shown in figure 4.

The result in Figure 4 revealed that 22.5% of the firms are in the food and beverages industry/subsector, (14.8%) in the chemicals and allied subsector while (10.1%) in the metal and allied subsector. The results also showed that (9.5%) of the firms in Kenya are in the energy industry/subsector, (8.3%) are based in the paper subsector while (7.1%) of the firms are in the textile & apparel subsector. The results, further revealed that (6.5%) in the plastics & rubber subsector and (6.5%) in the timber subsector. (5.3%) of the firms in Kenya are based in pharmaceuticals subsector, (3.6%) in leather subsector while (3%) of the firms in Kenya are based in the building & construction and motor vehicle subsector respectively. These which may improve their performance.

**4.3 Descriptive statistics**

**4.3.1 Strategic coordination Capabilities and Firm Performance**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std.Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The various departments in my company share a great deal of information with each other</td>
<td>1.14%</td>
<td>2.37%</td>
<td>10.65%</td>
<td>49.70%</td>
<td>33.14%</td>
<td>4.05</td>
<td>1.15</td>
</tr>
<tr>
<td>Business functions are integrated in serving the needs of the target market</td>
<td>6.51%</td>
<td>5.92%</td>
<td>7.10%</td>
<td>45.56%</td>
<td>34.91%</td>
<td>3.96</td>
<td>1.12</td>
</tr>
</tbody>
</table>
The results in table 2 revealed that majority of the respondents (82.84%) agreed with the statement that the various departments in their company share a great deal of information with each other. The results further revealed that majority of the respondents (80.47%) agreed with the statement that business functions are integrated in serving the needs of the target market. The results also agreed with that of Tiantian and Yezhuang (2015) who established that coordinated utilization of company resources relies in creating superior value for target customers. It focuses on the coordinated utilization of personnel and other resources throughout the firm to create value for the target customers. The results also showed that majority of the respondents (80.47%) agreed with the statement that their company's strategy emphasizes coordination of the various departments.

Furthermore, the results revealed that majority of the respondents (79.88 %) agreed with the statement that all of their business functions such as marketing, sales, etc. are integrated in serving the needs of our target markets. The findings were consistent with that of Udoyi (2014) who stressed the need for interaction; cooperation and form a relationship to satisfy customer needs through horizontal communication among members hence understand marketing information. The results revealed that majority of the respondents (79.88 %) agreed with the statement that their company's resources are frequently shared by different departments. The results revealed that majority of the respondents (75.73%) agreed with the statement that their company's strategy emphasizes coordination of the various departments. The results further showed that majority of the respondents (82.84%) agreed with the statement that employees collaborate with each other to achieve organizational goals.

The results also agreed with that of Protogerou et al., (2011) who argue that every department or organization unit must be well defined and understood by all employees and know their role to sustain competitive advantage. The results also revealed that majority of the respondents (77.51%) agreed with the statement that inter-departmental co-ordination has enhanced relationship with customers. The findings were in consistency with that of Christopher (1993) who argued that logistics has emerged as a vital element in the process of corporate renewal and the contribution that customer service can make to the building of long-term relationships with customers and hence enhanced customer retention is emphasized. The findings were also consistent with that of Udoyi (2014) who stressed the need for interaction; cooperation and form a relationship to satisfy customer needs through horizontal communication among members hence understand marketing information. In addition, the results revealed that majority of the respondents (77.52%) agreed with the statement that inter-departmental co-ordination has made decisions that affect the relations with customer easy.

On a five point scale, the average mean of the responses was 3.96 which mean that majority of the respondents indicated that majority of the respondents agreed with the statement; however the answers were varied as shown by a standard deviation of 1.09.
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4.4 Correlation Analysis

4.4.1 Correlation Analysis between Coordination Capabilities and Performance

| Table 3: Correlation Analysis between Coordination Capabilities and Performance |
|---------------------------------|-----------------|-----------------|
| Average performance Pearson Correlation | 1 |  |
| Average coordination Pearson Correlation | .586** | 0.000 |
| **Correlation is significant at the 0.01 level (2-tailed). |

The results in table 3 revealed that there was a positive and significant association between strategic coordination capabilities and performance (r = 0.586, p = 0.000). This is a clear implication that an increase in coordination capabilities resulted in an improvement in firm’s performance. The results were in agreement with that of Mandal and Korasiga (2016) who coordination capability positively moderates the relationship between demand management interface capability and logistics integration.

4.5 Regression Analysis

4.5.1 Regression Analysis for Strategic Coordination Capabilities

<p>| Table 4: Model of Fitnessfor StrategicCoordination Capabilities |
|-------------------------------------|-----------------|-------------------|-----------------|</p>
<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.586</td>
<td>0.343</td>
<td>0.339</td>
<td>0.274</td>
</tr>
</tbody>
</table>

The results in table 4 presented the fitness of model of regression model used in explaining the study phenomena. Strategic coordination capabilities were found to be satisfactory in firm performance. This was supported by coefficient of determination i.e. the R square of 34.3%. This shows that coordination capabilities explain 34.3% of the firm performance. The results meant that the model applied to link the relationship.

| Table 5: ANOVAfor StrategicCoordination Capabilities |
|---------------------------------|-----------------|-----------------|
| Sum of Squares | df | Mean Square | F | Sig. |
| Regression | 6.557 | 1 | 6.557 | 87.323 | 0.000 |
| Residual | 12.54 | 168 | 0.075 |  |
| Total | 19.098 | 169 | |  |

Table 5 provided the results on the analysis of the variance (ANOVA). The results indicated that the model was statistically significant. Further, the results implied that strategic coordination capabilities are a good predictor of firm’s performance. This was supported by an F statistic of 87.323 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

| Table 6: Regression of coefficientsfor StrategicCoordination Capabilities |
|---------------------------------|-----------------|-----------------|-----------------|
| (Constant) | B | Std. Error | Sig. | |
| 1.797 | 0.224 | 8.027 | 0 |
| Strategic coordination capabilities | 0.538 | 0.058 | 9.345 | 0 |

Regression of coefficients results in table 6 revealed that coordination capabilities and organization performance are positively and significantly related (B=0.436, p=0.000).

4.5.1.1 Hypothesis Testing for Strategic Coordination Capabilities

The hypothesis was tested by using multiple linear regression (table 8, above). The acceptance/rejection criteria was that, if the p value is greater than 0.05, the H0 is not rejected but if it’s less than 0.05, the H0 fails to be accepted.

The null hypothesis was that strategic coordination capabilities exert no significant influence on the performance of manufacturing firms in Kenya. Results in Table 8 show that the p-value was 0.000<0.05. This indicated that the null hypothesis was rejected hence there is a significant relationship strategic coordination capabilities and performance of manufacturing firms in Kenya. The results were in consistency with that of Mandal and Korasiga (2016) whose findings revealed that coordination capability positively moderates the relationship between demand management interface capability and logistics integration.
V. SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 Summary of Findings

The objective of the study aimed at establishing the influence of strategic coordination capabilities on performance of manufacturing firms in Kenya. The results from strategic coordination capabilities indicated an increase in knowledge capabilities resulted to an improvement in firm’s performance. Correlation results revealed that coordination capabilities and firm’s performance were positively and significantly related. Regression further showed that coordination capabilities have a positive and significant relationship with firm’s performance. The results were in agreement with that of Mandal and Korasiga (2016) who coordination capability positively moderates the relationship between demand management interface capability and logistics integration.

5.2 Recommendations

The study further recommends that company's strategy should emphasize coordination of the various departments. Business functions such as marketing, sales, etc. need to be integrated in serving the needs of the target markets. The study further recommends employees to collaborate with each other to achieve organizational goals. This can be made effective through the inter-departmental co-ordination and hence enhance relationship with customers. In addition, the study recommends that managers should be able to control their emotions intelligently their world view enhance the performance of the firm and be able to contain any negative feelings in the firm and focus instead on a positive outcome. The managers’ beliefs are strongly recommended to be in line with the firm’s mission and vision.

5.3 Conclusions

The study concluded that company's strategy emphasizes coordination of the various departments and that various departments in the company share a great deal of information with each other. Business functions such as marketing, sales, etc. are integrated in serving the needs of the target markets while the company’s resources are frequently shared by different departments. The study further concluded that employees collaborate with each other to achieve organizational goals a clear indication that inter-departmental co-ordination is functional and in the long-run has enhanced relationship with customers and made decisions that affect the relations with customer easy.

REFERENCES


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