Organizational Learning and Firm Performance: an Empirical investigation in an Emerging Economy Context

Juliana Mulaa Namada
Chandaria School of Business
United States International University - Africa
P. O. Box 14634 - 00800, Nairobi, Kenya, East Africa
Email: juliesimonis@yahoo.com

Abstract
Organizational learning and firm performance have been investigated without consistent conclusions. This study sought to establish the relationship between organizational learning and performance in an emerging economy. It was premised on the increasing focus on learning from the past to improve the future business organizations. There was a paucity of empirical studies focusing on levels of learning and the balanced score card measures of performance. The study adopted a descriptive cross sectional survey. The findings from this investigation showed a positive and significant relationship between organizational learning and none financial measures of performance. However, there was no significant relationship with financial performance measures. Data were obtained from firms operating in Export Processing Zones firms in Kenya.

Key words: Dynamic Capabilities; Firm Performance; Organizational Learning; 4i Framework.

1. Introduction
Strategic management as a field of study is still in its nascent stages in majority of the developing countries. Organizational learning is a key determinant in the performance of business organizations. Today, environmental turbulent coupled with stiff competition both at the domestic and global levels are key reasons why firms need to learn from the past in order to improve the future.

Many scholars have found that organizational learning is positively associated with performance (Bontis, Crossan & Hulland 2002; Schaufer & Walluer, 2003: Bustinza, Molinda & Aranda, 2010). Although organizational learning is evident in firms as leading to capability development, there are just few empirical studies which have attempted to link organizational learning to the ultimate organizational performance. These studies conceptualized organizational learning narrowly into aspects of knowledge acquisition, distribution and operational capabilities.

This study conceptualizes organizational learning based on three different learning levels of individual, group and institution according to the 4i framework of organizational learning (Crossan, Lane & White, 1999). While the balanced score card (Kaplan & Norton, 2008) have been used to measure performance in many studies an eminent gap persists in the application of all the perspectives, a key issue that this study addresses. Therefore, this study attempts an empirical investigation of the balanced score card measures of performance using the 4i framework of organizational learning in Export Processing Zones (EPZ) firms in Kenya.

EPZs form an excellent context for this study because export business exposes it to international arena which exposes the firms to stiff competition. Further, the zones also receive fiscal, procedural and infrastructural incentive from the local government (EPZA, 2012). In effect firms operating within EPZ are not only expected to boost their performance to survive within the global export market but also contribute significantly to the country’s economic growth and development.

2. Literature Review
2.1. Organizational Learning
Organizational learning is generally considered as a process which develops new insights which have the potential to influence organizational behavior (Senge, 1980; Fiol & Lyles, 1985). Organizational learning is portrayed differently by different scholars. It means new insights (Argyris and Schon, 1978), new structures
(Chandler, 1962), new systems (Miles, 1982) or a combination of the above.

It takes place through individuals in an organization. Organizational learning links cognition to action (Crossan, Lane and White, 1999). Through organizational learning, firms build an understanding and interpretation of their environment. This enables them to effectively assess viable strategic options (Daft and Weick, 1984). In turn, through learning capabilities, firms create alignment with the environment. This leads to associations, cognitive actions and development of memories within the organization. Cummings and Whorley (2009) defined organizational learning as a change process that seeks to enhance the organizational capability to acquire and develop new knowledge. Organizational learning theorists have recognized the strategic importance of organizational learning as a means of providing a sustainable competitive advantage and achieving strategic renewal. Bustinza, Molina and Aranda (2010) observed that organizational learning enables firms to create new products, processes and respond to changing environment. However, few empirical studies have sought to elucidate this relationship. Organizational learning is considered important to adaptive strategic change (Cummings & Whorley, 2009; Crossan, Lane & White, 1999). Organizations achieve strategic alignment by embracing organizational learning (Srimai, Damsaman & Bangchokdee, 2011). Organizational learning is a means of developing capabilities hence contribute positively to competitive advantage (Crossan & Bedrow, 2003).

Learning is organizational only if it is done to achieve organizational purpose, if it is shared among members of the organization and if the outcomes are embedded in systems, structures and culture. It is both a process and an outcome. As a process, organizational learning focuses on improving outcomes of different activities within the organization (Fiol and Lyles, 1985) while as an outcome it results into a learning organization (Senge, 1990). Organizational learning is a principle means of strategic renewal of an organization. Crossan, Lane and White (1999) posited that strategic renewal requires that organizations explore new ways at the same time, exploit what has been learned over time. They argued that for renewal to be strategic it entails the whole organization and recognizes the open systems framework. Through exploitation firms develop what has been learned through feedback while through exploration discover and acquire new knowledge through feed forward.

Learning capabilities result into organizational learning as well as learning organizations. According to Senge (1990) a learning organization is one with the ability to systematically solve problems, experiment with new approaches, learn from others and transfer knowledge quickly throughout the organization. In a rejoinder to the foregoing argument, Cummings and Whorley (2009) that a learning organization is an organization which is skilled at creating, acquiring, interpreting, transferring and retaining knowledge for behavior modification. Such organizations are characterized by structures which emphasize team work and networking, systems which facilitate rapid knowledge sharing and acquisition, human resource practices which account for long term performance, strong cultures which promote openness, creativity and social support and transformational leadership. Organizational learning is a process through which firms learn. Simon (1969) defined organizational learning as growing of insights and successful restructuring of the organization by individuals reflected in the structural elements and outcomes. It is a process which seeks to enhance organizational capacity to acquire and develop new knowledge. In essence, organizational learning is about cognition and action. It takes place through individuals and interactions. Further, it offers an alternative paradigm through which systems change.

2.2. Conceptualizations of Organizational Learning

Organizational learning is one of the concepts which lack agreement in terms of theoretical conceptualizations. Argyris and Schon (1978) conceptualized organizational learning in terms of single loop learning and double loop learning while Fiol and Lyles (1985) conceptualized it in terms of the lower and higher level learning. Single loop learning seeks to improve the status
Fiol and Lyles (1985) refer to this type of learning as lower level learning. The desired consequences of these learning are behavioral outcomes.

This level of learning is concerned with the firm as it adjusts to the external environment. Double loop learning on the other hand seeks to change the status quo. This type of learning aims at adjusting the overall rules and norms rather than specific behavior within the organization. Fiol and Lyles (1985) referred to this type of learning as higher level learning. They observed that this type of learning takes place through heuristics, skill development and insights. Further, they argued that this type of learning have long term impacts and affects the organization as a whole. On the other hand, Levitt and March (1988) conceptualized learning in terms of experiential learning and inter-organizational learning.

Hubber (1991) conceptualized organizational learning in terms of knowledge acquisition, information distribution, information interpretation and organizational memory. Knowledge acquisition and information distribution comprises of congenital learning, experiential learning, vicarious learning and grafting. He noted that information interpretation consists of learning from cognitive maps and framing, media information and processes related to unlearning while organizational memory consists of information storage and retrieval using computer based systems. Conversely, Crossan, Lane and White (1999) views of organizational learning is in terms of individual learning, group learning and institutional learning which are translated into intuition, interpretation, integration and institutionalization. The varying interpretations arise because some scholars consider organizational learning as processes while others consider it as outcomes evidenced in behavioral change.

Deutro learning on the other hand, focuses on the learning process itself and seeks to improve both single loop learning and double loop learning. Cummings and Whorley (2009) posited that deutro learning is concerned about learning how to learn. Through deutro learning, members continuously, construct the organization through actions and interactions with each other and learn from the actions. This enables the members to develop, test and modify mental maps (Morgan and Berthon, 2008; Hsu and Fang, 2009). Largely, organizational learning has largely been operationalized as adaptive learning (single loop learning), generative learning (double loop learning) and triple learning. In essence, organizational learning starts with the discovery of gaps between the actual and the desired situations. Interventions are made to close the gaps which include diagnosis of what causes gaps and ultimately creating solutions to fill the gaps.

2.3. Levels of Organizational Learning

The 4i framework established a connection between strategy and learning (Vera and Crossan, 2004). Organizational learning is a multilevel concept occurring at individual, group and institutional levels. The process is linked by four psychological processes of intuition, interpretation, integration and institutionalization (Crossan, Lane and White, 1999). Feed forward learning focuses on proactively anticipating environmental changes through individual intuition. Intuition occurs at the individual level which is integrated into group learning and then into learning at institutional level. Feedback indicates how learning that is embedded in organizations affect individuals and groups (Crossan and Bedraw, 2003).

The framework of organizational learning provides important insights by linking the three levels of individual, group and institutional learning and showing the linkage to strategic renewal. It recognizes the fact that learning is a multilevel process linked to the four psychological processes of intuition, interpretation, integration and institutionalization.

Organizational learning is defined by four interrelated processes of intuition, integration, interpretation and institutionalization. Individuals are important in organizational learning process. However, organizational learning is not simply the sum of each members learning (Levitt and March, 1988). Intuition is the basic learning process at the individual level. It is a preconscious recognition of the pattern and responsibilities inherent in a personal stream.
of experiences (Weick, 1995). It is uniquely an individual process and affects individual actions (Crossan, Lane and White, 1999). At its basic level, it involves perceiving similarities, differences, patterns and possibilities. One perspective of intuition focuses on the expert view while the other focuses on the entrepreneurial view. Expert view is about pattern recognition, which becomes tacit knowledge (Nonoka, 1991). Expertise is difficult to transfer from one person to the other because it emanates from a stream of actions. Individual learning is transformed into group learning.

Group learning constitutes interpretation and integration. Interpretation is the process through which insights are given meaning (Daft and Weick, 1984). Integration is the process of developing shared understanding and taking coordinated actions by members. It translates and develops shared understanding. Through interpretation, individuals develop cognitive maps about various domains (Huff, 1990). Further, Thomas, Sussman and Henderson (2001) noted that observations get processed into lessons through an expanded interpretation process which normally includes feedback around the organization. As the interpretive process moves beyond the individual it becomes integrative (Morgan and Berthon, 2008). Daft and Weick (1984) noted that a distinctive feature of integration is perception sharing.

Institutionalization is the process of embedding learning that has occurred by the individuals and group into the organizations (Crossan, Lane and White, 1999). Environmental turbulence creates a gap between what the organization needs to do and what it has learned to do. The gap prompts the organization to manage embedded learning and the new learning that feeds forward through intuition, interpretation and integration (Crossan, Lane and White, 1999). Fiol and Lyles (1985) observed that organizational learning is affected by structure, strategy and culture. Performance is enhanced by the organizational ability to learn. Tippins and Sohi (2003) argued that firms which are able to learn about the customers, competitors and regulators adapt effectively to changes within the environment.

2.4. Organizational Performance
Organizational performance is one of the most researched areas in management. Mdrid et al (2007) posited that high performing firms generate both firm based and society benefits. Therefore an accurate measure of performance could generate insights into what affects performance and the subsequent actions which could facilitate meeting stakeholder expectations. Behn (2003) posited that performance measures serve different purposes in an organization. He observed that performance enables managers to evaluate, control, budget, motivate, promote, celebrate, learn and improve different aspects in an organization. Therefore, no single measure is appropriate for all the eight purposes of organizational learning (Srimai, Damsaman and Bangchokdee, 2011).

Recently, there has been a drift from financial measures to incorporate non financial indicators such as market, business processes, learning and growth perspectives. Chakravarthy (1986) posited that performance is a multidimensional construct and observed that any single index may not provide a comprehensive understanding of the performance relative to different constructs. Further, Kaplan and Norton (2008) emphasized on the comprehensive performance measurement systems comprising of both financial and non financial measures through the balanced score card. This study used both financial and non financial measures of organizational performance.

2.5 Organizational Learning and Firm Performance
Performance provides an important feedback about the efficiency of the learning processes and ultimately affects how the organization continues to learn (Bontis, Crossan and Hulland, 2002; Hsu and Fang, 2009). Organizational learning breeds creativity and innovation which facilitates the development of new products. Andersen (2000) posited that managers learning abilities enable the organization to become responsive to changes in market conditions which benefits the firms operating in dynamic and complex environments. Schaffer and Willauer (2003) posited that learning is a
cybernetic feedback loop which involves individuals at different levels of the organization. They observed that learning aims at the adjustment of internal models where members modify interpretations of events and develop a shared understanding to improve output.

Crossan, Lane and White (1999) argued that learning results in a better understanding of the underlying business systems and in essence enable the organization seize unfolding opportunities while at the same time minimize threats. Learning is critical in business performance. Bontis, Crossan and Hulland (2002) research supported the view that there is a positive relationship between learning and business performance. The findings of the study reveal that learning at the individual, group and institutional levels are critical to the overall firm performance. From the dynamic capabilities viewpoint, organizational learning is seen as a means of developing dynamic capabilities which are valued by customers and difficult to imitate hence contributing to competitive advantage (Crossan and Bedrow, 2003; Nasir and Sisnuhadi, 2013).

3. Methodology
The study adopted a descriptive cross sectional survey. It enabled the researcher to capture data at a given time of the study while minimizing temporal effect of the study variables so as to interpret the relationships among study variables (Namada et al, 2014). A cross sectional approach was preferred because it facilitates data collection from different respondents at one point in time.

Saunders, Lewis, and Thornhill, (2009) observed that cross sectional approaches are robust in relationship studies and enhance the credence of results. Data was collected using both primary and secondary sources. Each of these methods complimented one another by filling in data gaps which the other method is incapable of capturing. The population of this study comprised of all operational EPZ firms in Kenya.

The study operationalized variables into measurable units. Organizational learning was measured in accordance with Crossan, Lane and White, (1999) 4i framework which considers organizational learning in terms of individual, group and institutional levels. Individual learning is defined by intuition, group learning defined by interpretation and integration while institutional learning is defined by institutionalization of the norms, procedures and organizational culture (Fiol and Lyles, 1985; Crossan and Bedrow, 2003; Bontis, Crossan and Hulland, 2002). Many other scholars in organizational learning adopted the 4i framework (Crossan and Bedrow 2003; Bontis, Crossan and Hulland, 2002). This study adopted the balanced score card framework proposed by Kaplan and Norton (1996) which focuses on both the financial and the non financial measures of performance. Return on investment and sales growth rate formed the financial measures of the study while market perspectives and internal business processes constituted the non financial measures.

4. Results and Findings
The study focus was to investigate the influence of organizational learning on performance of EPZ firms in Kenya. This was achieved through testing the hypothesis below using regression models. The hypothesis to be tested was:

\[ H_0: \text{Organizational learning has no significant influence on firm performance.} \]

Organizational learning was regressed upon the four measures of performance of return on investment, sales growth rate, internal business process and market performance.

Table 4.1 shows that the coefficient of determination of organizational learning and return on investment performance was 0.080. It means organizational learning explain only 8.0 percent of variation in return on investment performance and the remaining 82 percent was explained by other factors not considered in the study. Table 1 shows the overall significance of the model with a p-value of 0.619 which was greater than 0.05. The null hypothesis was not rejected and concluded that organizational learning has no influence on return on investment performance.
Table 4.1: Organizational Learning and Return on Investment Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t&gt;Value</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>B</td>
<td>S.E</td>
<td>Beta</td>
<td>Adjusted R Square</td>
<td>R Square</td>
</tr>
<tr>
<td>0.282</td>
<td>0.089</td>
<td>-0.082</td>
<td>0.656</td>
<td>0.089</td>
<td>0.895</td>
</tr>
</tbody>
</table>

*a Predictors: (Constant), Institutional learning, Individual learning, Group learning

Source: Field data

Table 4.1 shows the beta coefficients of individual, group and institutional learning. However, none of the coefficients was significant which means that the independent variables did not explain changes in return on investment performance.

Table 4.2 shows that the coefficient of determination of organizational learning and sales growth rate performance was 0.230 which means that 23 percent of sales growth rate performance was explained by organizational learning and the remaining 77 percent was explained by other factors not considered in the model. Table 2 shows the overall significance of the model with a p-value of 0.206 which is more than 0.05. The null hypothesis was not rejected and concluded that organizational learning has no relationship with sales growth rate performance.

Table 4.2: Organizational Learning and Sales Growth Rate Performance

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adj R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R Square</td>
<td>Change</td>
<td>F Change</td>
<td>Sig. F Change</td>
<td></td>
</tr>
<tr>
<td>0.480</td>
<td>0.230</td>
<td>0.094</td>
<td>0.4225</td>
<td>0.250</td>
<td>1.693</td>
</tr>
</tbody>
</table>

*a Predictors: (Constant), Institutional learning, Individual learning, Group learning

Source: Field data

Table 4.2 shows that the beta coefficients of individual, group and institutional learning and none of the coefficients was significant which means that the independent variables did not explain changes in market performance.

Table 4.3 indicates that the coefficient of determination of organizational learning and internal business process performance was 0.414 which means that organizational learning explain 41.4 percent of the variation in internal business process performance. The remaining 58.6 percent was explained by other factors not considered in the model. Table 3 shows the overall significance of the model with a p-value of 0.000 which is less than 0.05 and therefore the null hypothesis was rejected and concluded that organizational learning has a significant influence on internal business process performance.

Table 4.3: Organizational Learning and Internal Business Process Performance

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adj R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>R Square</td>
<td>Change</td>
<td>F Change</td>
<td>Sig. F Change</td>
<td></td>
</tr>
<tr>
<td>0.644</td>
<td>0.414</td>
<td>0.263</td>
<td>0.552</td>
<td>0.414</td>
<td>0.020</td>
</tr>
</tbody>
</table>

*a Predictors: (Constant), Institutional learning, Individual learning, Group learning

Source: Field data

Table 4.3 shows the beta coefficients for individual learning, group learning and institutional. However, none of the coefficients was significant which means that the independent influence of the variables does not explain changes in internal business process performance.

Table 4.4 shows that the R² of organizational learning and market performance was 0.316, this means that 31.6 percent of the market performance was explained by organizational learning. The remaining 68.4 percent was explained by other factors not considered in the model. Table 4 shows the overall significance of
the model with a p-value of 0.004 which is less than 0.05 and therefore the null hypothesis was rejected and concluded that organization learning has a significant influence on internal business process performance.

**Table 4.4: Organizational Learning and Market Performance**

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>0.562</td>
<td>0.316</td>
<td>0.256</td>
<td>0.448</td>
<td>0.318</td>
</tr>
</tbody>
</table>

**Source:** Field data

Table 4.4 indicates the beta coefficients of individual learning, group learning and institutional learning. The regression equation shown above indicates that a unit change in individual learning causes an increase of 0.251 in market performance. It means that firms which facilitate individual abilities to generate new insights, allow them to take actions which are experimental in nature together with motivating them achieve an increase of 0.251 in market performance.

5. **Discussion and Conclusions**

The findings of this research indicate a positive and significant influence of organizational learning on non financial performance measures. Organizational learning in this study was measured in terms of individual learning, group learning and institutional learning exemplified in the 4i framework of intuition, interpretation, integration and institutionalization (Crossan, Lane and White, 1999). Crossan and Bedrow (2003) posited that the comprehensive nature of the 4i framework connects the facets of organizational learning which had often remained unconnected. This study espoused that the source of competitive advantage are rooted in dynamic capabilities which lay in the organization ability to learn. Thus, learning enables firms to explore as well as exploit different resource endowments.

This study established a relationship between organizational learning and none financial performance. Similarly, Bontis, Crossan and Hulland (2002) study which was done in mutual fund companies in Canada supported the premise that there exist a positive and significant relationship between organizational learning and business performance. In the foregoing study, business performance was computed as a composite variable from subjective measures of performance.

In line with the above findings, Bustinza, Molina and Aranda (2011) study established that development of dynamic capabilities in service companies in Spain resulted into improved firm performance. The results of the non financial performance measures of this study agreed with the past findings. However, the results of the financial performance measures contradict with past findings. Possible reasons could be that the financial performance measures are moderated by other factors not considered in this study.

Generally, organizational learning is considered a necessary although not a sufficient precursor to sustained performance. The begging question then remains, how then does learning foster performance since it is context specific. This study focused on EPZ context in Kenya. From the findings of the study, a combination of individual, group and institutional learning positively influenced internal business process performance and market performance. In line with these findings, Morgan and Berthon (2008) study which focused on bioscience industry in the UK, established that exploitative and exploration innovation strategies which are greatly rooted in organizational learning significantly explained improvements in business performance.

Similarly, Amiri at al (2010) argued that organizational learning leads to improvements in business performance which explain both financial and non financial performance. They observed that market orientation leads to exploitative learning while generative learning leads to explorative innovation.

This study demonstrated that learning capabilities are created at the individual, group
and institutional levels. This empirical work contributes positively to this theory by confirming that learning capabilities at different levels form dynamic capabilities, which in the long run enable the organization to achieve sustained performance. This study demonstrates that learning abilities at different levels generate competitive advantage thereby increasing a firm’s flexibility in adapting to the external environment hence fostering performance. All in all, this study has made a contribution to the relationship between organizational learning and performance.

Further it has shed light to different levels of learning and the specific contributions to different measures of the balanced score card. In effect therefore as a managerial implication of this study, managers need to differentiate and pay attention to all the levels of learning in order to reap more benefits in terms of business performance.

References


