

## **Learning Organization and Performance of Large Manufacturing Firms**

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**The concept of learning organization has generated a lot of debate among scholars in recent years. Learning organizations have developed as a result of pressure facing modern organizations to adapt and remain competitive in modern business environment. However, few empirical studies have examined the relationship between learning organization and firm performance. A number of discussions presented in literature focus on why learning matters, yet few empirical studies address the processes required to build learning organizations and their potential impact on firm performance. This study sought to contribute to this growing body of knowledge by determining the influence of learning organization on performance of large manufacturing firms in Kenya. To assess this relationship, the authors obtained managerial responses to the Yang, Watkins and Marsick's Dimensions of the Learning Organization Questionnaire (DLOQ) as well as financial and non-financial measures of performance. Results of the study reveal that learning organization has a significant influence on firm performance measured in both financial and non-financial terms. The findings are consistent with the basic proposition of Resource Based View (RBV) which suggests that firms perform well when they implement strategies that exploit their internal resources and capabilities. The findings also provide support to previous empirical studies.**

**Key Words:** Learning Organization, DLOQ, Firm Performance, Large Manufacturing Firms

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## Introduction

Twenty-first century organizations are facing an unprecedented wave of change and a business environment characterized by turbulence, uncertainty and volatility. Jamali, Sidani and Zouein (2009) observe that modern organizations have no choice but to adapt to this change or face the risk of extinction. This backdrop of change has triggered a reassessment of traditional managerial concepts, processes and systems of delivery and embracing new management philosophies revolving around learning organization practices and principles. Learning organizations have developed as a result of the pressures facing modern organizations to adapt and remain competitive (Probst&Buchel, 1997). Learning organization is an organization which learns powerfully and collectively and is continually transforming itself to better collect, manage and use knowledge for corporate success. Faced with unpredictable, always uncertain and highly turbulent business conditions, an organization's capacity to learn may be the only true source of competitive advantage (Rowden, 2001). Garvin (1993) argues that learning organizations ensure that organizations learn from experience, develop continuous improvement programmes, use systematic problem solving techniques and transfer knowledge quickly and efficiently throughout the organization by means of formal training programmes linked to implementation.

Extensive literature review on learning organization provides various definitions. Most of the definitions focus on the importance of acquiring, applying and

transferring knowledge, facilitating individual and team learning, modifying behavior and practices of the organization to achieve superior performance (Senge, 1990; Pedler et al, 1991; Huber, 1991; Garvin, 1993). Although there are different definitions and approaches to learning organization, some common characteristics can be identified. First, all approaches to the construct of the learning organization assume organizations are organic entities like individuals and have capacity to learn. Second, sustainable competitive advantage is attributed to the organization's learning capability. Third, characteristics of the learning organization are reflected at different levels, individual, team and organizational levels.

Systematic assessment of the management literature presents an interesting dilemma regarding the learning organization concept. Proponents of the learning organization concept suggest that adopting learning organization practices should promote individual, team and organizational learning which in turn contribute to improved firm performance (Slater & Narver, 1995; Baker & Sinkula, 1999). However, the scholars' contributions are largely prescriptive in nature, few are grounded in practice (Jacobs, 1995; Gardiner, 1999). A number of discussions presented in literature focus on why learning matters, yet few empirical studies address the processes required to build learning organizations and their potential impact on firm performance (Ellinger Young & Houston, 2002). Jacobs (1995) suggests that there is little evidence

supporting the claim that performance improvement is directly related to the adoption of learning organization practices. Thus, one of the major research challenges is to establish the relationship between characteristics of the learning organization and firm performance (Iles, 1994).

Recent studies have attempted to establish a research base that examines the DLOQ developed by Watkins and Marsick (1993) and firm performance (Ellinger et al., 2002; Li & Lu, 2007; Jamali et al, 2009; Dirani, 2009; Dekoulou&Trivellas, 2015). If firms are to create learning organizations by focusing on implementation of practices and processes that promote learning at individual, team and organizational levels, the linkages to improved firm performance must be effectively established. The main purpose of this study was to assess the relationship between the learning organization concept articulated by Yang, Watkins and Marsick (2004) and firm performance measured in both financial and non-financial terms.

### **Theoretical Background**

The study falls within the framework provided by RBV and Dynamic Capability Theory (DCT). The RBV proposes that the firm's internal resources are the primary predictors of superior performance (Wernerfelt, 1984).The RBV of the firm focuses on resources and capabilities within the firm to explain the profit and value of the organization (Wernerfelt, 1984; Barney, 1991; Grant, 1996). Dynamic capability approach focuses attention on the firm's ability to renew its resources in line with

changes in its environment (Poulis, Poulis& Jackson., 2013).

Wright, Dunford and Snell (2001) observe that dynamic capabilities require that organizations establish processes that enable them to change their routines, services, products and even markets over time. Learning organization comprises characteristics, principles and systems of an organization that learns collectively which leads to increased firm performance. The learning organization concept is seen as a resource-oriented approach that is based on the ability of the organization to turn standard resources that are available to all into competences which are unique and cannot be easily copied by competitors (Karash, 2002). This study proposes that a system of learning practices can lead to increased firm performance.

### **Learning Organization and Firm Performance**

Despite the numerous accounts and suggestions that discuss why the learning organization presumably works, few concrete studies clarify how it works to achieve superior performance.Ellinger et al. (2002) argue that one of the major challenges articulated in the literature is to establish relationships between characteristics of the learning organization and organizational performance. In addition, Barron (1996) observe that no quantifiable data are available from any organization which has attempted to deal with a learning organization holistically. Friedman, Lipshitz and Popper (2005) suggest the need for more empirical research on existing learning

organization concepts rather than on generating new typologies.

Empirical research provides evidence that learning organization influences firm performance. Garrido and Camerero (2010) examined the relationship between learning orientation, innovation and performance of 386 British, French and Spanish firms and found a significant relationship. A study by Ellinger et al. (2002) on the relationship between learning organization and financial performance of U.S manufacturing firms revealed a positive relationship between learning organization and financial performance. Other studies present inconclusive research findings. Khadra and Rawabdeh (2006) indicate that only one construct, learning and development, significantly influenced performance. Other constructs such as leadership and vision, rewards and recognition, information and knowledge were not significantly related to performance. Prieto and Revilla (2006) found that the path coefficient from learning capability to financial performance was -0.236 and non-significant, therefore the hypothesized relationship between learning capability and financial performance was not confirmed.

Firm performance refers to the extent to which an organization is able to meet its objectives and mission. Torrington, Hall and Taylor (2008) attribute organizational performance to bottom financial performance, doing better than competitors, maximum organization effectiveness and achieving specific organization objectives. Measurement of performance is an essential indicator of the effectiveness of the firm.

Firm performance needs to be assessed to highlight strengths and improvement opportunities and reduce gaps (Khadra&Rawabdeh, 2006).

Historically, financial measures have been used to measure firm performance. These include sales turnover, profit, return on investment, return on assets, revenue growth. Ahmed, Lim and Zairi (1999) suggest that effective measurement systems are those which are balanced, integrated and designed to highlight critical inputs, outputs and process variables. In addition, a valued measurement system incorporates financial and operational measures such a balanced scorecard approach (Hitt, 1996). This study focused on perceptual measures of financial performance and non-financial measures such as customer perspective, internal business operations and learning and growth.

Firm performance was measured using the balanced scorecard (Kaplan & Norton, 1992). The BSC provides a framework for selecting multiple performance indicators that supplement traditional financial measures with qualitative measures such as customer perspective, internal business process and learning and growth. The balanced scorecard was developed to measure a firm's performance in multiple areas. Advocates of this 'measurement diversity' approach argue that a broad set of measures keeps managers from sub-optimizing by ignoring relevant performance dimensions or improving one measure at the expense of others (Ittner, Larcker& Randall, 2003).

## Methods

The current study was conducted in 108 large manufacturing firms in Kenya. Primary data was collected using a structured questionnaire. In line with previous studies, Gardiner and Leat (2001) and Bontis, Crossan and Hulland (2002) key respondents were employees in managerial positions based on the fact that they possess sufficient knowledge in regard to issues under investigation. The questionnaire consisted of three parts: A, B and C. Part A which sought information on personal and organizational details was filled by the human resource manager.

In addition, the human resource manager responded to questions on learning organization (Part B). Part C section one which focused on financial perspective was completed by the finance manager. Part C section two was concerned with non-financial measures of performance. The key respondent was the production manager.

Learning organization was measured using Dimensions of the Learning Organization Questionnaire (DLOQ), a scale constructed validated and revised by Watkins and Marsick (1993) and Yang et al., (2004). The seven dimensions of DLOQ (continuous learning, dialogue and inquiry, team learning, embedded systems, empowerment, system connectivity and strategic leadership) were measured using 37 items on five-point likert scale. The respondents were asked to assess the extent to which their organizations practised characteristics of a learning organization with 1= not at all and 5= very large extent. The validity of (DLOQ) has been proved through evidence of results

obtained which suggest that this tool could be used in future research requiring measurement of learning capability (Basim, Sesen&Korkmazyurek, 2007). The model identifies the main dimensions of learning organization in the literature and further integrates these dimensions in a theoretical framework that specifies interdependent relationships. The instrument covers learning at individual, team, organizational and global level.

Firm performance was measured using the balanced scorecard (Kaplan & Norton, 1992). The study focused on perceptual measures of financial performance and non-financial measures such as customer perspective, internal business operations and learning and growth. Youndt, Snell, Dean and Lepak (1996) recognized the difficult in obtaining objective measures of performance in organizations. The scholars suggested when dealing with organizations in different sectors, standardization is not possible and asking managers to assess their own firm's performance relative to others in the same industry is an acceptable option. Drawing from Dess and Robinson (1984) proposition, the subjective perceptions of a firm's management team are considered adequate in the absence of objective measures.

## Results

The primary objective of the study was to determine the influence of learning organization on performance of Large Manufacturing Firms in Kenya. To test the direct relationship between learning organization and firm performance simple

linear regression was used. Separate tests were performed for financial and non-financial performance.

**Learning Organization and Financial Performance**

The effect of learning organization on financial performance was tested using simple linear regression analysis. This was

done by regressing financial performance on learning organization. A composite index for seven dimensions of learning organization constituted the measure for independent variable while a composite index for five indicators of financial performance constituted the measure for dependent variable. The regression results are presented in Table 1.

**Table 1 Regression Results for the Effect of Learning Organization on Financial Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.260 <sup>a</sup>	.067	.051	.15396		
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.096	1	.096	4.050	.049
	Residual	1.327	56	.024		
	Total	1.423	57			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.468	.130		3.603	.001
	Learning Organization	1.712	.851	.260	2.012	.049
Predictors: (Constant), Learning Organization						
Dependent Variable: Financial Performance						

Source: Primary Data, 2015

The regression results in Table 1 indicate that 6.7 percent of variance in financial performance was explained by learning organization ( $R^2=0.067$ ,  $P<0.05$ ). The regression did not explain 93.3 percent of variation in financial performance which is due to other factors not included in the study. This implies that learning

organization is a weak predictor of financial performance.

The overall model was statistically significant ( $F=4.050$ ,  $P<0.05$ ). The beta coefficients indicate that the influence of learning organization on financial performance was statistically significant ( $\beta=$

0.468,  $t = 2.012$ ,  $P < 0.05$ ). This suggests that one unit change in learning organization is associated with 0.468 change in financial performance. The results thus provide evidence that learning organization influences financial performance.

Non-financial measures of performance were regressed on learning organization. Non-financial performance was measured as a composite index representing customer perspective, internal business process, learning and growth obtained from responses in the questionnaire. The regression results are presented in Table 2.

**Learning Organization and Non-Financial Performance**

**Table 2: Regression Results for the Effect Learning Organization on Non-Financial Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.627	.394	.383	.01474		
ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.008	1	.008	37.010	.000
	Residual	.012	57	.000		
	Total	.020	58			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.073	.013		5.671	.000
	Learning Organization	.509	.084	.627	6.084	.000
a. Predictors: (Constant) Learning Organization						
b. Dependent Variable: Non- Financial Performance						

Source: Primary Data (2015)

Results in Table 2 indicate that 39.4 percent of variation in non-financial performance was explained by learning organization ( $R^2=0.394$ ,  $P<0.05$ ). This implies that 60.6 percent of variation in non-financial performance is due other factors not included in the study. The F ratio was statistically significant ( $F=37.010$ ,  $P<0.05$ ).

This implies that the influence of learning organization on non-financial performance is statistically significant. In addition, the beta coefficients of the model were statistically significant ( $\beta=0.509$ ,  $t=6.084$ ,  $P<0.05$ ). The  $\beta$  value indicates that one unit change in learning organization corresponds to 0.509 change in non-financial performance. From these results, the hypothesized relationship between learning organization and non-financial performance was supported.

### **Discussion**

Findings on financial measures indicate that learning organization accounted for 6.7 percent of variance in financial performance ( $R^2=0.067$ ). The overall model was statistically significant ( $F= 4.050$ ,  $P < 0.05$ ) and the influence of learning organization on financial performance was also statistically significant ( $\beta=0.468$ ,  $t= 2.012$ ,  $P< 0.05$ ). The  $\beta$  value suggests that one unit change in learning organization is associated with 0.468 change in financial performance. The results thus provide evidence to support the influence of learning organization on financial performance.

The results of the study are in line with findings by Ellinger et al. (2002) that indicated a positive relationship between

learning organization and financial performance of US manufacturing firms. The study by Ellinger et al. (2002) focused on the relationship between learning organization and both perceptual and objective measures of financial performance. The Dimensions of Learning Organization Questionnaire (DLOQ) proposed by Watkins and Marsick (1993) was used to measure the learning organization concept. Similarly, the current study used the DLOQ to assess the relationship between learning organization and perceptual measures of financial performance of Large Manufacturing Firms in Kenya.

Further analysis on the influence of learning organization on non-financial performance revealed a significant relationship. 39.4 percent of variation in non-financial performance was explained by learning organization ( $R^2=0.394$ ,  $P<0.05$ ). The overall model ( $F=37.010$ ,  $P<0.05$ ) and the beta coefficients ( $\beta=0.509$ ,  $t=6.084$ ,  $P<0.05$ ) were statistically significant. The  $\beta$  value indicates that one unit change in learning organization is associated with 0.509 change in non-financial performance. Thus, the hypothesized relationship between learning organization and non-financial performance was supported.

The results of the study are consistent with previous studies. Prieto and Revilla (2006) examined the link between learning capability and business performance in Spanish firms measured in both financial and non-financial terms. The researchers confirmed that the influence of learning

capability on non-financial performance was positive and significant. The current study found a positive relationship between learning organization and financial performance, while Prieto and Revilla (2006) indicate the relationship between learning capability and financial performance was negative and non-significant.

The inconsistency in Prieto and Revilla (2006) study can be attributed to the conceptualization of the study. Learning capability indirectly influences financial performance through its significant effect on non-financial performance. The mediating role of non-financial performance precedes the firm's financial success. Learning orientation is seen as a basis of organizational capabilities required to efficiently accomplish the company's processes, products and service. Thus, this approach determines the organizational potential to create value for stakeholders better and faster as a precondition of financial achievement.

The study revealed that learning organization had a strong and positive relationship with firm performance measured in both financial and non-financial terms. Findings of the study lend support to prior empirical research. A study by Khadra and Rawabdeh (2006) on manufacturing firms in Jordan revealed that learning organization practices had a significant influence on organizational performance. Similarly, Bontis et al. (2002) examined the relationship between organizational learning and financial performance and confirmed a

positive relationship. Li and Lu (2007) examined the applicability of learning organization concept and its influence on firm performance in China and established a positive relationship. Garrido and Camerero (2010) confirmed that learning orientation significantly influenced both innovation and performance of British, French and Spanish museums. From the findings, hypothesis one was confirmed. There was a notable distinction between financial and non-financial performance. Learning organization was a better predictor for non-financial performance measured in terms of customer perspective, internal business process, learning and growth than financial performance.

### **Conclusion**

Our research examined the relationship between learning organization practices proposed by Yang et al. (2004) and firm performance measured in both financial and non-financial terms. The significant relationship between learning organization and both financial and non-financial performance lend support to the efficacy of the learning organization concept proposed by Yang et al. (2004). The results also reconfirm the results of previous studies on the influence of learning organization on firm performance using DLOQ scale (Ellinger et al., 2002; Li & Lu, 2007; Jamali et al., 2009; Dekoulou&Trivellas, 2015).

Despite the significant relationship between learning organization and firm performance, the study had a number of limitations with respect to methodological issues that need to be considered when interpreting results. This

section presents challenges faced in the process of carrying out the study. The study variables were measured on a five-point likert scale ranging from 1= not at all to 5= very large extent. One of the major limitations of this scale is its inability to measure true attitudes of respondents. Respondents tend to portray themselves in a more socially favourable light rather than being honest, hence may avoid extreme response categories.

The study utilized a cross sectional survey design. Cross sectional studies do not measure causal effects on the observed relationships between study variables and therefore may not give actual relationships that exist between learning organization, knowledge management, employee outcomes and performance of manufacturing firms in Kenya.

Another limitation was the use of self-administered questionnaires. Self-administered questionnaires present a challenge to the business researcher because respondents may not understand the questions and therefore give incorrect responses. The results may not estimate the true relationship between study variables.

Finally, the study relied on perceptual measures of financial performance since it was difficult to obtain objective measures. Lack of secondary data fails to provide a true picture of firm performance. The perceptual measures may bias the estimated relationship between learning organization and firm performance.

Despite the limitations discussed above, the quality of the study was not compromised. The study was designed in a highly scientific manner based on extensive literature review. A conceptual model was developed and hypotheses tested using statistical techniques. These limitations, therefore, do not have adverse effects on the findings of the study. Overall, the results have made a significant contribution to the existing body of knowledge in human resource management.

### **Implications of the Study**

The results of this study provide a number of theoretical, policy and practical implications for manufacturing firms in Kenya. This study makes a significant contribution to the theory underpinning SHRM. The study provided a unique opportunity for expanding theoretical and empirical development on resource based view (RBV) to explain the process through which learning leads to improved performance. Drawing from RBV proposition, competitors would have difficulty in duplicating competitive advantage based on combination of firm specific resources because the combination arises from organizational process that is causally ambiguous, path dependent and socially complex.

The study confirmed that learning organization has a significant influence on firm performance measured in both financial and non-financial terms. HR practitioners can use findings of this study to support the need for implementation of learning

organization initiatives. Top Management in manufacturing sector can apply the findings of this study to develop internal capacity in key areas of human resource management (HRM) in order to deliver sustained competitive advantage.

Policy makers can apply findings of study to reinforce several areas of HRM policy and practice. A needs assessment can be done and programs designed that effectively address any performance gaps. Key areas to be addressed include learning organization practices such as continuous learning, team learning, empowerment and systems connectivity. In addition, policy makers can use the findings of this study to evaluate how well the manufacturing sector can be leveraged through learning organization practices in order to contribute to increased economic growth.

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