

# Effect of Organizational Learning on Organizational Performance of Food Manufacturing Firms in Nairobi County, Kenya

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## Abstract

The purpose of the study is to examine the effect of organizational learning on organizational performance in food manufacturing firms in Nairobi County Kenya. The study is guided by the Knowledge Based Theory which considers knowledge as a strategically significant resource of the firm. In recent years, there has been an amplified interest on the role of organizational learning in managing knowledge assets through defining the processes of knowledge acquisition, dissemination, transfer and storage for competitive advantage and superior performance. The study adopted correlational survey research design with a target population of 87 food manufacturing firms from Nairobi County. The study used disproportionate stratified random sampling method to identify a sample that was representative of the 7 sub-sectors of the food manufacturing industry. A sample of 71 firms was used in the study. Primary data was collected using close-ended questionnaires which were administered to executive officers in the firms. The questionnaire was used to get both qualitative and quantitative data. To summarize the data, descriptive statistics such as mean and standard deviation were used. To examine the effect of organizational learning on organizational performance, multiple regression analysis was used. The study results revealed that there was a positive and significant relationship between organizational learning and organizational performance. The study concluded that while information distribution needs to be the key vision of organizational learning goals, all organizational learning dimensions should be combined for a greater increase on organizational performance.

**Keywords:** Organizational Learning, Organizational Performance, Knowledge Based Theory, Manufacturing Sector, Kenya

## 1.0 Introduction

Today, firms face increasing challenges posed by a competitive and dynamic business environment. This has led to disruptive changes that have forced businesses to change their course in order to survive. To develop and sustain a superior competitive advantage, firms have resorted to managing their knowledge resources (Grant, 1996). In order to improve performance, value must be created from knowledge assets as a firm merely possessing knowledge is not enough to impact performance (Prahalad & Hamel, 1990). Thus, organizational learning has been widely proposed as a necessary strategic asset that creates value from knowledge assets as it is anticipated that its application leads to increase in knowledge stocks that lead to efficiency and effectiveness that translates to increased firm performance.

Probst and Buchel (1997) define organizational learning as the ability of the institution as a whole to discover errors and correct them, to change the organization's knowledge base and values so as to generate new problem solving skills and a new capacity for action. Therefore, organizational learning is a key element that enables an organization to adapt to changes in its internal and external environment and remain competitive in times of uncertainty (Smith, 2001). Conclusively, firms that learn more effectively will in the long run perform better than their competitors.

The manufacturing sector in Kenya is the third leading sector contributing to the Gross Domestic Product in Kenya by a little over 10%, this has a direct impact on economic growth and therefore holds the key to economic solutions. However, the manufacturing sector has been on the decline for a considerable period of time and its contribution to the country's Gross Domestic Product has remained stagnant at 10% since independence. Furthermore, its growth rate has decelerated from an expansion of 3.4% in 2011 to a growth rate of 3.1% in 2012. Increased globalization and competition from both domestic and international countries, integration of traditional manufacturing, increase of innovation techniques, the use of information and knowledge to improve supply chain management and growth of national markets have presented both threats and challenges to this sector. In order to channel the manufacturing sector into economic growth, the Kenyan government has created objectives to expand the manufacturing sector as it is a major part of the government's Vision 2030 economic development plan to transform Kenya into a middle income country. The government's goal is for manufacturing to account for 20% of the Gross Domestic Product by 2030 (Kenya Economic Survey, 2013).

Although organizational learning research has been wide and robust, empirical work to date demonstrates a lack of consensus on how best to facilitate organizational learning as a comprehensive model (Curado, 2006) and a lack of cumulative work (Huber, 1991). However, majority of these studies have been done in developed nations while little research has been done in developing nations. In Kenya, a few empirical studies

have been done to examine the effect of organizational learning on organizational performance. Organizational learning research in Kenya has spun around organizational learning practices and its impact on donor agency performance (Amulyoto, 2004), organizational learning impact on organizational performance in Small and Medium Enterprises (Njuguna, 2008) and organizational learning as one of the determinants of success in Non-Governmental Organizations (Khakina, 2006). These studies concluded that organizational learning had a positive impact on organizational performance but results could not be generalized to other industries due to differences in size efficiencies and knowledge needs. Therefore to close the gap on this problem, the study focused on assessing the effect of organizational learning on organizational performance in food manufacturing firms in Nairobi County.

## **2.0 Literature Review**

### *2.1 Organizational Learning*

Management research has widely advocated organizational learning as a source of competitive advantage in today's dynamic business environment. Various scholars have summarized their findings on organizational learning and created concepts regarding their applications in organizations. Yeo (2005) summarized research on organizational learning for the period 1990-2004 and concluded that all definitions of organizational learning have a common theme in the sense that organizational learning is seen as a driver of competitive advantage which can be translated to performance. Yeo (2005) defines a learning organization as a characteristic type of organization (what) while organizational learning refers to the process of learning (how). Jensen and Rasmussen (2004) provide a definition by referring to organizational learning which takes place at a macro scale as the learning organization in comparison to persons changing from one knowledge state to another on a micro-level as organizational learning. In broader perspective, he states that organizational learning, in essence, deals with the process of change and transformation. That this change and transformation has to do with the expansions of people's values and beliefs about what is possible and how things work.

However, many researchers agree that the notion of knowledge is a central theme of organizational learning, embodied in organizations practices and processes as well as its products and services. The knowledge based view therefore forms the theoretical foundation of organizational learning as this theory views firms as repositories of knowledge and competencies. According to this view, the organizational advantage of firms over markets arises from their superior capability in creating and transferring knowledge (Ghoshal & Moran, 1996). This added to the fact that the ability to learn faster than competitors may be the only sustainable competitive advantage (De Geus, 1988; Stata, 1989). Dulworth and Bordonaro (2005) argue that learning is imperative in the current business environment and that rapid learning enables employees to reach peak performance faster, drives organizational productivity and agility, and enables faster response to competitive threats, develop new product opportunities and customer requirements. This makes organizational learning a competitive resource in a growing global knowledge economy. Garratt (1999), and Su, Huang and Hsieh (2004) believe that in order to satisfy ever changing consumer demands, organizations should develop both personal or group learning abilities. In order to accomplish this, proper knowledge management systems should first be in place. Crossan et al. (1999) view organizational learning as a dynamic process based on knowledge which moves along different levels of action; that is from individual level to group level and to organizational level and back to individual level. They further argue that for organizational learning to be implemented throughout the organization, four dimensions are proposed; system perspective, oneness and experimentation and knowledge transfer. Management commitment is considered to have a spearheading role in the implementation of organizational learning strategies as it assures that a culture that promotes the acquisition, creation and transfer of knowledge as fundamental values is embedded in the organization. System perspective entails bringing the organization's members together to form a common identity. Oneness and experimentation involves creating a climate that welcomes new ideas and different points of view, both internal and external, allowing individual knowledge to be constantly renewed, widened and improved while knowledge transfer and integration refers to two closely linked processes which occur simultaneously rather than successively. This involves creation of a chain processes detailing new and old knowledge is processed and disseminated to members of the organization and integration of this into existing routines.

According to Inkpen and Crossan (1995), for organizations to learn effectively various organizational features and elements must be present. Proposed features include: adaptive and responsive organizations where learning is the norm, firm's learning intent (Inkpen & Crossan, 1995), strategies supporting innovation, capability development, enlightened transformational leadership and distributed authority (Vera & Crossan, 2004), flexible rather than rigid structures, norms, cultures and belief systems supporting learning ( March, 1991; Levitt & March, 1998), the use of whole systems planning and decision making forums (Dannemillar & Jacobs, 1992), processes and tools that permit the flow or transfer of knowledge between individuals and groups (Zander & Kogut, 1995), and support and legitimacy of practitioner oriented learning (Brown & Duguid, 1991). Huber (1991) considers four constructs as integrally linked to organizational learning: knowledge acquisition,

information distribution, information interpretation, and organizational memory. Taking a behavioral perspective, Huber (1991) posits that an entity learns if through its processing of information, the range of potential behavior is changed.

## *2.2 Organizational Learning and Organizational Performance*

Empirical research has consistently found that organizational learning through learning curves and types of learning contribute positively to performance. Argote and Epple (1990) posit that organizational learning curve studies conducted across a number of industry settings show that organizational learning through cumulative experiential learning enhances performance. Furthermore, experiential learning enables firms to pass knowledge and develop skills through hands on experience through training of the work force. Studies show that training programs have increased job satisfaction in staff as they empower them to achieve both personal and organizational goals thus leading to increased firm performance in the long run.

From their study on pharmaceutical firms, Bierly and Chakrabarti (1996) suggested that successful firms were found to place equal emphasis on learning from their own knowledge as well as the knowledge of others. Ingram and Baum (1997) argue that vicarious learning from other organizations' experiences is an important way that organizations acquire knowledge, however, empirical studies on vicarious learning focuses on the positive replication of routines, strategies and designs of apparently successful organizations as a means of constructing their best practices based on industry benchmarks.

Quite a few studies have emerged in recent times that have scrutinized the relationship between organizational learning process and organizational performance. These studies found that the impact of organizational learning on business performance differs and depends on what they understand as performance. Financial results are widely considered as business performance (Lei et al., 1999). Although financial outcomes are important, there may be more proximate outcomes that may mediate the relationship with financial results. For example, outcomes of organizational learning behaviors may include changes in values and assumptions (Argyris & Schön, 1978), skills (Fiol & Lyles, 1985), systems and structures (Levitt & March, 1988), core competencies (Prahalad & Hamel, 1990), organizational innovativeness and competitiveness (Nason, 1994), corporate success, and employee satisfaction (Bontis et al, 2002). A wide variety of definitions of firm performance have been proposed in literature with frequent reference to how efficiently and effectively a firm utilizes its resource in generating economic outcomes (Barney, 2007) or and measurement of transaction, that is efficiency and effectiveness towards organizational goals (Stannack,1996; Barney,1991).

Most literature highlight that firms would benefit more if they can use knowledge acquired from the external environment to strengthen their internal environment as the external environment is beyond the firms' control while internal environment can be controlled. A study by the Brookings Institution revealed that sixty percent of an organization's competitive advantage is derived from internal advancements in knowledge, innovation and learning (Carvenale, 1992). Organizational learning impacts on a firm's performance (Sadler-Smith et al., 2001). Researchers (Calantone et al., 2002) have addressed the relationship between a firm's organizational learning and its performance, highlighting that learning creates new knowledge which can help firms quickly respond to the dynamic changes in the external environment like changing customer needs and industry changes. Baker and Sinkula (1999) and Farrel (2000) found that organizational learning yields promising results in organizations. Farrel (1999) empirically tested a model of the background and consequences of organizational learning and found that organizational learning has a positive effect on organizational commitment, spirit de corps and on organizational performance. Calantone (2002) examined the relationship between organizational learning and performance and found that a positive relationship exists between the two. Overall, it can be concluded that an organizational environment in which organizational learning is encouraged; individuals were more committed to achieving firm's goals, encouraged to share information and learn, develop new skills and knowledge therefore facilitating an improved firm performance. Although many authors consider organizational learning as the fundamental aspect of competitiveness and link it with knowledge acquisition and performance, there is a little empirical evidence to support this perspective in food manufacturing companies in Kenya, a growing economy. In view of the theoretical arguments and prior empirical evidence, the following hypothesis was proposed:

H1 Organizational Learning has a positive effect on organizational performance.

## *2.3 Conceptual Framework of the relationship between organizational learning and organizational performance.*

The framework for this study examined organizational learning as the key factor in improving organizational performance in strategic management as illustrated in figure one.

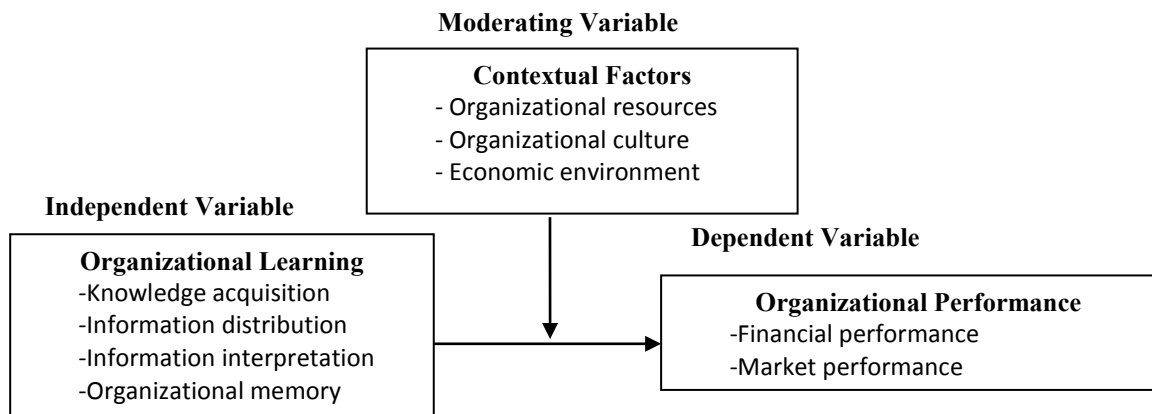


Figure 1: Relationship between Organizational Learning Contextual Factors and Organizational Performance.

According to the framework in Figure 1, organizational learning is the independent variable while organizational performance is the dependent variable. Organizational learning will be assessed through the specific processes of knowledge acquisition, information distribution, information interpretation and organizational memory. Organizational learning must be established through appropriate knowledge platforms that enable learning to take place that is, through knowledge acquisition, distribution, interpretation and storage in the organization's memory. Organizational knowledge in the form of cognitive maps influences how knowledge is acquired, distributed, interpreted and how the organization stores memory subsequently affecting organizational performance (Daft & Weick, 1984; Dutton & Jackson, 1987). Organizational knowledge affects organizational performance because the effectiveness of knowledge components and configurations is determined by their ability to achieve performance outcomes (Collins & Montgomery, 1995). The absorptive capacity of an organization also determines the capacity of the organization to learn new skills and ideas relevant to influencing performance.

Organizational learning is expected to result to organizational performance. This will be assessed in terms of financial performance and market performance. Performance outcomes can influence an organization's capacity to support organizational learning as they provide feedback on the effectiveness of knowledge assets which may heighten motivation to improve or redirect learning activities. Performance outcomes also determine the amount of slack resources available for learning processes (Hedberg, 1981). Slack resources are considered critical to support the activities of a parallel organization that fosters learning activities as well as production activities (Schein, 1993).

Contextual factors, that is organizational resources, organizational culture and economic environment will have an effect on the relationship between organizational learning and organizational performance. The contextual factors can either hinder or facilitate organizational learning processes and this impacts organizational performance (Garvin, 1993; Ulrich et al., 1993). They can be categorized into internal and external factors. Various organizational factors such as culture, strategy, structure have been found to facilitate organizational learning. Woiceshyn (2000) further suggested that various factors such as resources allocated to learning, motivation, incentives provided, shared values and organizational strategy influenced organizational learning. Furthermore, Hult et al., (2000) found out that openness, participative decision making culture and transformational leadership has a positive influence on organizational learning and performance. External factors also impact organizational learning. An organization's position in the industry, its access to resources and nature of competitive dynamics influences organizational learning (Barnett & Hansen, 1996). In this manner, competition from other forms helps an organization to learn and improve (Barnett & Hansen, 1996).

### 3.0 Methodology

#### 3.1 Research Design

The study used correlational research design to investigate the possibility of relationships between variables. The study also adopted a cross-sectional survey as data was collected at a single point in time.

#### 3.2 Population and Sample

The population of the study comprised of food manufacturing firms in Nairobi County, Kenya and the firms included small, medium and large firms. There are a total of 87 food manufacturing firms in Nairobi County which are members of Kenya Association of Manufacturers (KAM 2014). The firms are classified into 7 sub-sectors of the Food and Beverages Sector: The Sub-sectors are: Alcoholic Beverages; Bakers and Millers; Cocoa, Chocolate and Sugar; Juices/Waters/Dairy/Carbonated Soft Drinks; Tobacco; Vegetable Oils and Slaughtering/Preparation and Preservation of Meat. A sample was used for the study. Considering the desired

confidence level (95% confidence level) and the margin of error (set at 5% in this study), a sample of 71 food manufacturing firms was used for the study. To select the 71 firms which constituted the sample units, disproportionate stratified random sampling was used to ensure the sample was representative of the 7 sub-sectors of food manufacturing firms.

### 3.3 Data Collection

To achieve the objective of this study, primary data was collected using a questionnaire. The questionnaire had closed ended Likert-type scales developed to measure the respondents' perceptions of the existence and magnitude of organizational learning and organizational performance of the organizations. The respondents were the executive officers of the firms who were considered to be better informed of organizational processes.

### 3.4 Measures of Variables

In this study, the independent variable is organizational learning while the dependent variable is organizational performance. Borrowing from literature, organizational learning was measured in terms of knowledge acquisition, information dissemination, information interpretation and organizational memory dimensions (Huber, 1991). A five point Likert-type scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5) were constructed with items on knowledge acquisition, information distribution, information interpretation and organizational memory respectively. Respondents were asked to indicate how accurately each statement described their firms.

The dependent variable in the study is organizational performance. Researchers have adopted different perspectives in measuring performance. Organizational performance in this study was measured using financial performance, which is in terms of return on assets and return on equity. Market performance was measured in terms of market share or sales growth. Self-evaluation served as a reliable alternative indicator of performance as accurate financial data is often difficult to obtain. A five point Likert type scale ranging from very much decreased (1), decreased (2), not changed (3) increased (4) and very much increased (5) were developed with items on financial and market performance and respondents were asked to compare their firms with key competitors on the items.

### 3.5 Data Analysis

Descriptive statistics such as mean and standard deviation were used to summarize the data and describe organizational learning practices and performance of firms. Pearson's product-moment correlation was used to examine the relationship between organizational learning and organizational performance. To test the hypothesis which predicted that organizational learning has a positive effect on organizational performance, multiple regression analysis was used. Organizational performance was regressed on the dimensions of organizational learning that is knowledge acquisition, information distribution, information interpretation and organizational memory. The following multiple regression model was developed:

$$Y = a + X_1 + X_2 + X_3 + X_4 +$$

Where: Y = Organizational performance, a = Constant, X<sub>1</sub> = Knowledge acquisition, X<sub>2</sub> = Information distribution, X<sub>3</sub> = Information interpretation, X<sub>4</sub> = Organizational Memory, - = regression coefficients, = error term

## 4. Results and Discussion

### 4.1 Response Rate

Questionnaires were distributed to 71 food manufacturing firms in Nairobi County. Responses were obtained from 68 firms representing a response rate of 94.4%.

### 4.2 Reliability and Validity

#### 4.2.1 Test of Validity

To ascertain the validity, the researcher used content validity through the development of the scales with the help of the experts in the Faculty of Commerce, Egerton University.

#### 4.2.2 Test of Reliability

The research scales were examined to determine their reliability using Cronbach's alpha coefficient. The results of the analysis presented in Table 3.2a-b show that all the research constructs had alpha coefficients of above 0.7. The overall Cronbach's Alpha coefficient was 0.908. Overall, the instrument met the recommended threshold of 0.7 and thus considered reliable.

### 4.3 Effect of Organizational Learning on Organizational Performance

To test the research hypothesis which stated that organizational learning positively affects organizational performance, Table 1 below demonstrates the regression model summary.



Table 1: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.547 <sup>a</sup>	.299	.254	.480

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.169	4	1.542	6.708	.000b
Residual	14.485	63	.230		
Total	20.654	67			

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.624	.403		8.999	0.000
Knowledge Acquisition	-.362	.166	-.438	-2.181	0.333
Information Distribution	.728	.157	.888	4.636	.000
Information Interpretation	.040	.142	.048	.281	.780
Organizational Memory	-.358	.195	-.437	-1.833	.072

- a. Predictors: (Constant), knowledge acquisition, information distribution, information interpretation, organizational memory
- b. Dependent Variable: Organizational Performance

The results in Table 1 show the model summary of the multiple regression analysis. The R value on the table shows the regression coefficient ( $r = .547$ ) of the analysis, which shows that there is a strong and positive relationship between organizational learning and organizational performance. Coefficient of determination (R Square) is 29.9%. This shows that 29.9% variation in the dependent variable (organizational performance) is explained by the independent variable (organizational learning). From the full regression model in Table 2, the regression equation is therefore expressed as:

$$Y = 3.624 - 0.362 X_1 + 0.728 X_2 + 0.040 X_3 - 0.358 X_4 + 0.403$$

The regression equation supports the hypothesis that; knowledge acquisition, information distribution, information interpretation and organizational memory jointly positively affect organizational performance. The findings are consistent with the findings of Sadler-Smith et al., (2001) and Farrel (1999) in which they empirically tested a model of the background and consequences of organizational learning and found that organizational learning has a positive effect on organizational commitment, spirit de corps and on organizational performance. Huber (1991) found that the four processes of organizational learning when jointly applied in the long run will lead to organizational performance.

## 5.0 Conclusions

From the findings, there is a moderately strong relationship between organizational learning and organizational performance. The findings of the study lead to the following conclusions:

There is a link between information distribution and interpretation and organizational performance of food manufacturing firms in Kenya; information distribution is positively related to the organizational performance of firms. The finding confirms that information distribution and information interpretation are crucial in enhancing organizational performance. Hence, higher levels of information distribution and information interpretation would result in higher levels of organizational performance. However, knowledge acquisition and organizational memory each had each a negative relationship with organizational performance thus establishing that there is no relationship between knowledge acquisition and organizational performance, and organizational memory and organizational performance. However, the combined effect of knowledge acquisition, information distribution, information interpretation and organizational memory on organizational performance explained only a 29.9% variation in performance. This indicates that there are other factors which could influence organizational performance. Introduction of one or more of these factors can provide a foundation for further research and introduction of other theories. This study was conducted extensively on large Food manufacturing firms in Nairobi County. Manufacturing firms may differ in terms of knowledge needs and levels of competency in this regard as compared to service firms and technological firms. Thus the results cannot be generalized to all firms. Other contextual differences across counties may affect level of performance as this study focused on manufacturing firms within Nairobi County only. The study should be replicated in other industries and in other countries. Such replication could further determine whether the results of this study can be generalized to a wider context. This will enhance understanding of the relationship between organizational learning and organizational performance in different contexts.

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