

# **EFFECT OF KNOWLEDGE MANAGEMENT ENABLERS ON PERFORMANCE OF MANUFACTURING FIRMS IN KENYA: A CASE OF MARS WRIGLEY CONFECTIONERY**

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## **ABSTRACT**

Knowledge management enables organizations to gain insight and understanding from its own experience and procedures. Knowledge management enabler has been identified as a key component in improving organizational performance and sustaining an organization in today's competitive business world. This study aims at investigating how knowledge management enablers affect the performance of manufacturing sector specifically Kenyan based manufacturing company Mars Wrigley Confectionery. The study was guided by the following specific objectives; to investigate the effect of organizational information infrastructure on performance of Mars Wrigley Confectionery; to assess the effect of organizational culture on performance of Mars Wrigley Confectionery; to examine how knowledge management strategy affects the performance of Mars Wrigley Confectionery; and to investigate the effect that leadership has on the performance at Mars Wrigley Confectionery. The study was guided by four theories: technology acceptance model, contingency theory, Durkheim's Theory of culture and the Organizational knowledge conversion theory. Descriptive research design was employed in the study since the information is collected without changing the environment. Target population focused on all the 486 employees working at the Mars Wrigley's Confectionery in Athi River Area, Machakos. This study collected primary data through the use of structured questionnaires. The study found out that all knowledge management enablers have positive and significant effect on organizational performance.

Specifically, organizational culture, organizational information technology infrastructure, strategy and leadership all have an effect on Mars Wrigley Confectionery performance. The findings of the study revealed that performance of Mars Wrigley Confectionery is influenced by IT. All the associates at Mars Wrigley Confectionery had the ability to write code. Organization culture had a positive influence with performance. Staffs had a collaborative culture that enables the employees to work together towards achieving a common goal by sharing their skills and ideas. Knowledge management strategy had a positive influence on performance. Knowledge transferring strategy was applied on managing company knowledge to improve its productivity and efficiencies. Leadership had a positive influence with performance. The associates were motivated by their leaders. Managers behaved in a way that was consistent with their values. The study recommends that the management ought to implement IT strategies in their organization to achieve set goals and objectives. Staffs ought to adopt the firm's culture on sharing and transferring knowledge. The management ought to ensure that their culture facilitated decision making capabilities through knowledge sharing. The study concluded that management should ensure that they incorporate knowledge creation in order to sustain its competitive advantage. The management should also ensure that their company structure provide guidance and clarity on specific issues faced by the leaders in an organization.

**Key Words:** *knowledge management enablers, performance, manufacturing firms, Mars Wrigley confectionery*

## **INTRODUCTION**

Many firms have been experiencing a lot of competition and challenges in maintaining the organizational performance. The global trends have indicated that knowledge is the single most important factor that once utilized can improve performance and lead to competitive advantage of the firm. According to Meihami and Meihami (2014), the usage of knowledge is an important way to accomplish better organizational performance and effectiveness in modern society. Any organization that possess the best information on consumer needs, changing trends of the markets, current efficient and effective processes and operations in organizations would likely be the most successful firm and through would show high performance indicators (Evans, Dalkir & Bidian, 2015).

Knowledge is more valuable and efficient than large stocks of raw materials or nature assets or large invested capital. The organization that possesses the best information on consumer needs, changes in the market, efficient processes and procedures and learns to maintain that information will be the most successful organization that will be sustainable in future (Birasnav, 2014).

Knowledge starts as data, raw facts and numbers and when the data is put in context that is relevant to the recipient, it becomes information. It is a collection of messages and readily captured in documents or in databases. When information is combined with experience, understanding, capability and judgment; it becomes knowledge (i.e. what we know). Knowledge can be highly subjective and hard to codify, and it can be shared with others and used to improve the performance of a firm. The systematic and explicit management of knowledge and its relationship procedures of developing, collecting, diffusion, organizing, utilization and misuse is referred to as Knowledge Management (Soto-Acosta & Cegarra-Navarro, 2016). It needs converting individual knowledge into the company knowledge that can be shared broadly in the company and properly used for the company's competitive advantage.

Knowledge management is significant to endure the business more than land or capital labor since it permits for the growth of enduring competitive advantage. Knowledge offers the capability to reply to a novel circumstance in a creative, timely and innovative manner. Knowledge is created upon a human centered theory that identifies a firm as multifaceted structure that came from the exclusive organizational setting where they are generated. Knowledge is also and a company's practice and because there is a diverse of nature and amount of work, they do but still there is no clear definition of knowledge management. Liebowitz and Frank (2016) states that knowledge management is any procedure or and practice of making, obtaining, getting, sharing and then utilizing knowledge, whether it remains to improve the performance and learning in an organization.

Knowledge management enablers are the influencing factors that foster the growth and development of knowledge; it is also concerned with creation, distribution, sharing and knowledge use with an aim of to enhancing performance (Adan, 2013). These enablers are

building blocks which are essential in improving the effectiveness of activities for knowledge management. They can stimulate knowledge creation, protect knowledge and facilitate knowledge sharing within an organization. In order to improve on knowledge creation process and ensure distribution of it is easy, new formats such as technological infrastructure need to be adopted by organizations. The organizational culture should be open enough to allow for creativity and development of new knowledge in response to the changing market trends, consumer wants and preferences. Organizational leadership is important in establishing knowledge management strategies that would improve its performance and sustainability in the future times.

## **STATEMENT OF THE PROBLEM**

KM is the main foundation of competitive advantage for a company (Choy, 2006). KM is significant to the organization since it is capable of making an organization attain insights and understand from its own experiences. In order for an organization to effectively implement KM it is necessary for it to understand and identify the main factors that might impact the achievement of knowledge management creativity since it might have a deep impact on organizational performance. However, for knowledge management to be implemented effectively, organizations need to identify and understand crucial factors that would influence knowledge management initiative to be a success as their effects on the organization performance are immense. Mars Wrigley Confectionery is operating in an evolving environment with heightened competition among industry players. This call on the management to find strategies that would increase their intellectual capital, measures of sharing and storing information for future uses. The technology used varies from time to time as the companies seek to achieve optimal production efficiency. Employees with experience and skills keep on leaving to join the competitors which mean that they leave with the knowledge and trade secrets which can be used against the company involved in the market. There is also lack of proper channels in which knowledge can be shared and lack of support from top leadership in a firm. Another problem is a lack of structure in which new knowledge can be generated and the proper way to manage people so as to continue the process of creating, developing and sharing information which leads to poor performance (Meihami & Meihami, 2014). Several studies have been carried out on study variables. Adan (2013) established that organizational culture, structural issues, people and information technology infrastructure lead to moderate high performance in the firm. This study was a case study and its findings may not apply in other firms and industries. Owira and Ogollah (2014) concluded that enablers of KM are organizational culture, structure, members of project and information technology but the construction industry had not invested and fully developed KM strategies. This study was generalized to the entire construction industry and its findings may not apply to the manufacturing sector, which Wrigley's fall under, thus creating a research gap. Karanja and Mwaura (2017) established that variations in performance at KenGen was through leadership of the firm, adoption of information technology, employee involvement in all organizational activities and organizational culture as the knowledge management enablers. This study was conducted in energy sector case study KenGen thus findings of the study may

not apply to Wrigley's in the manufacturing sector. This leads to a knowledge gap that the study interest to examine how KM enablers affects the performance of Mars Wrigley.

## **GENERAL OBJECTIVE**

To examine the effect of knowledge management enablers on performance of manufacturing firms in Kenya: A Case of Mars Wrigley Confectionery

## **SPECIFIC OBJECTIVE**

1. To investigate how organizational information technology infrastructure affects performance at Mars Wrigley Confectionery
2. To examine the effect of organizational culture on the performance at Mars Wrigley Confectionery
3. To determine how knowledge management strategy affects the performance at Mars Wrigley Confectionery
4. To assess the effect of leadership on the performance at Mars Wrigley Confectionery

## **THEORETICAL REVIEW**

### **Technology Acceptance Theory**

This theory was developed by Davis (1989). Technology Acceptance model (TAM) shows how and why people use technology. Presented with new technology, users are faced with several perceptions that affect their decisions to use it. These are perceived usefulness (level of accepting that certain technology would improve productivity) and perceived easiness of use (level of accepting that using certain technology would be effortless). The two factors though determine the usage of new technology, they are affected by other factors like security, cost, accessibility, trust (Venkatesh, Thong, & Xu, 2016). Perceived effortless of use influence the user's perception on the usefulness which both determine perceived use and the real use of the technology (Ma, Chan & Chen, 2016). This theory is relevant to this study as it has been commonly used to determine the level of use of technology depending on the user's perception on usefulness and easiness of use (Marangunić & Granić, 2015).

This theory is important to the study by explaining how employees use technology to enhance their performance at work. The theory explains the factors informing an organization to adopt technology which is crucial for performance.

### **Durkheim's Theory of Culture**

This theory was developed by Durkheim (1890). The theory explains culture as a process that is becoming prominent in terms of believe, values, and structures that are symbolic such as tribal, communal, and Durkheim gave a close observation to. The theory argues that work performance of an organization within its environment should involve what the culture includes even though it seems difficult. Through culture an organization influences the tasks

and achievement of the organizations objectives. The collective conscience is established through the socialization procedure in that the person masters the norms, codes, and ethical values of the community. Collective conscience is one that controls the person's wish, limits the drives of the individual and potentially unlimited desires (Habermas, 2015). The collective conscience can never be introduced in the person through rational ways. Binding affections and love help internalize ethical restriction. Durkheim (1893) noted that fragile collective conscience in communities, leads to lack of success in fully integrating majority of the communities, thus leading to exploitation. Individuals made up communities thus their way of actions is purely determined to large extent be their upbringing, communities' beliefs, norms and characters.

According to Eyerman and McCormick (2015), although subcultures may strengthen integration with the entire organization, they could also provide centers of disagreement. Cultural gaps are likely to happen on status, professional or divisional lines. Proof of existing subcultures is found in various discursive practices in organizations. Different employees in different organizations give organizational occurrences in a specialized form of speech that other professionals other firms may share wholly with colleagues that are outside the firm than those that are within using divergent expressions everywhere when their subgroups come together in the production of their mutual sense of mission (Young, 2016).

This theory is relevant in this study as it expounds further on how organizational culture affects as a KM enabler affects performance at the Mars Wrigley's Confectionery.

### **Organizational Knowledge Conversion (OKC) Theory**

Organizational knowledge conversion theory was developed by Nonaka and Takeuchi (2011). The theory defined the interface process of tacit and explicit knowledge as significant characteristic in the knowledge management. This theory further recognizes four modes of the interface process that include; socialization, externalization, combination, and internationalization (SECI) that enables knowledge management in a company. Changing of knowledge from one type to another, leads to retaining of knowledge in the company system. When experience and knowledge is shared, this means that when the retiring individuals' leaves, their knowledge will be left with the young individuals who remains in the company. Their knowledge sharing between the senior employee and the expertise with the junior and the new employees. Tactic knowledge can be transformed into explicit and when this happens, knowledge is taken in the company system and the knowledge is kept the database and documents. Keeping of knowledge comprises of all the actions that reserve knowledge and permits it to be kept in the system (Dihl, Horst, Serpe, De-Francisco and Kovaleski, 2014).

The OKC theory is majorly concerned with creation and sharing of knowledge and ways of changing knowledge from one form to another and ways of managing the company's knowledge. Keeping of knowledge in the system and procedures that maintain knowledge and permit it to stay in the system after it has been presented comprises all the procedures

that preserve the practicality of knowledge in the system (Cabitza, Cerroni & Simone, 2014). Earl (2011) states that when there is an interaction between tacit and explicit knowledge, there is creation of four modes knowledge change which comprises of socialization, internationalization, externalization and combination (SECI). According to Chong Ahimbisibwe, Cavana and Daellenbach (2015), SECI is the knowledge creation engine and knowledge transferring process. The dynamic of sharing and creating knowledge which might be taken and kept in the company is led by the present joint engagement. Knowledge can be made and expanded through the social interaction among organization and employees, the interaction is known as knowledge conversion.

The theory is relevant in this study as it anchors the knowledge management strategy variable, which focuses at the knowledge creation at the process of knowledge creation to its full utilization at the Mars Wrigley's Confectionery and resulting in improved performance.

### **Contingency Theory**

According to Hersey and Blanchard (1974), the contingency theory offers that there is no one paramount approach of leading and that an effective style of leadership in one situation may not work in another. How effective a leader turns out is dependent on his behavior in the given situation. Lussier and Achua (2015) claim that a leader's productivity in the high hierarchy of the firm is dependent on his ability to adapt or change his style. This is an issue in many small organizations where managers are satisfied with their current achievements and hence not bearing in mind their abilities to achieve the same level of excellence in the future (Otley, 2016). The business world is a very dynamic environment with challenge cropping up every time. The ability of the firm's leaders to give a vision and path that lets a firm to change and innovate is essential in encouraging an inspired reaction to new challenges (Otley, 2015).

This theory is relevant to the study as it explains the reasons behind some styles of leaders are effective in specific situations only. In other words, the knowledge management enablers' adoption in an organization is contingent upon some other factors and no there is no single enabler that is most relevant to a firm.

## **EMPIRICAL LITERATURE REVIEW**

### **Organizational Information Technology**

In USA, Camisón and Villar-López (2014) assessed organization innovation based on knowledge enabler capability of technology and organizational performance. The study indicated that IT is significant in the organization as it helps in KM. IT obtains, defines, categorize, store, index and link Knowledge to the connected items. The other importance of IT is that it looks and identifies the connected content and also it is flexible to express the content related to certain usage of background. Wang, Chen and Benitez-Amado (2015) in China who investigated on how information technology influences environmental

performance, the study indicated that IT influences motivation of knowledge sharing direct and indirect. This is because IT can attain different roles which are: to remove hindrance, offer ways of getting information adjust the flow procedure and find the area of carrier and seeker of knowledge. The researcher further indicated that the proficiency of the organization in influencing IT infrastructure flexibility, individual skill in IT and arrangement of IT business allows the combination of IT in the procedure of environment management to enhance environmental performance and this IT combination is tougher when the company is extra sticks to the environment continuity.

Sellers, Ballard, Guillot, Carter, Atkins, Pausback and Herrneckar (2017) in South Africa, revealed flexibility of IT infrastructure is an organizational core competency that must be present for an organization to survive and prosper in competitive business environment. The flexibility of an organizational IT infrastructure includes the compatibility components, IT personnel and connectivity modularity that if adopted to a firm's operations, it would lead to a comparative advantage and enhanced performance. The extent at which implementation of IT infrastructure is dependent on the organizational culture, availability of resources, leadership team that advocates for advancing technological applications and well-trained IT personnel. The study emphasized on the importance of IT infrastructure flexibility to organizations as a source for a sustainable competitive advantage.

IT infrastructure creates space for the keeping and comfort in recovery. The storage comprises of both styles of recording which are soft and hard style and keeping of employees and the company knowledge in a manner that the information would be easily recurred or saved. Organizations uses technical infrastructure in storage of knowledge. The infrastructure includes soft and hard modern information and human procedure to find the knowledge in the company, do the coding and indexing of the knowledge for recovery as stated by Owira and Ogollah (2017) when examined the process of knowledge management. Good storage of knowledge makes it easy to code and index knowledge for future use. Storage of knowledge and the saving stage uses the data mining and tools of learning which are known as the company memory.

### **Organizational Culture**

Shore and Wright (2015) did an investigation on the governing by numbers: audit culture, rankings and the new world order. The study reveals that having a transparent and clear audit system in place is only possible through an audit culture, which is seen as values, beliefs systems and norms that encourage sharing of information. There is present of mutual trust in a company only when employees have faith in the characteristic, integrity and capability to trust each other and be open, practical and powerful exchange of knowledge. Furthermore, knowledge exchange between different individuals is a requirement for the creation of knowledge. A joint culture nurtures this kind of conversion by Lessing fear and adjusting openness to other individuals. Alliance among the company employees also hardens the employee's misunderstandings. It might give hand in creating a shared understanding concerning the company's internal and external surroundings through helpful and thoughtful



interaction. When employees don't share their understanding among each other, it is only a slight knowledge which created.

Kiggundu (2013) analyzed organizational culture and employee performance in Uganda. This study employed the mixed method to establish the effect of structural structures on employee performance. The researcher indicated that companies need main cultures where the systems are made for actual activities. This study is relevant as it would help in understanding how different cultures affect employee performance in the Kenyan context. Organization culture is viewed as an important powerful factor in examining firms in numerous settings. It is significant to create a competitive advantage on the performance of the company. Organization culture is connected to the good performance of an organization by many leaders in an organization.

Mwau (2016) examined whether organizational culture affect the performance of a company, a case of KPLC. The findings indicated that organization culture affect the performance of KPLC to a high extent over the years. KPLC has adaptable, consistent and involving culture which has highly impacted its performance in duration of time. A company should have an organization culture that is supportive, compatible and aligned with the strategies which the organization has set that affect the company's day to day activities that would lead to enhanced company's performance. The organization top management should focus on the culture in the company and also stress on the culture that cares for whole health of individuals and better organizational culture. The researcher also indicated that organizational culture is utilized in companies as a strategic instrument to achieve competitive advantage.

### **Knowledge Management Strategy**

Kim, Lee, Chun and Benbasat (2014) conducted a study to assess management strategies affect the performance of knowledge management. The journal noted that knowledge management is viewed as the only path of making sure that there is existence and flexibility of the company. The key issues to be addressed in knowledge management comprises of knowledge gathering, keeping, sharing and shifting. KM is viewed as a process rather than a product, involving many activities to carry out the main elements in the KM strategy into KM operations. Knowledge management infrastructure is the foundation upon which knowledge management activities are constructed. The successful implementation of knowledge management requires adequate infrastructure in the organization.

Hajir, Obeidat, Al-dalahmeh and Masa'deh (2015) investigated the functions of knowledge management infrastructure in improving innovation in an organization in Jordan, a case of mobile telecommunication companies. The results indicated that human resource, IT, knowledge management infrastructure, knowledge management infrastructure and the physical environment are major enablers for implementation of knowledge management. The study further indicated IT as a significant instrument for managing knowledge, since it permits the exchange of knowledge, information and experience among individual in an organization. The study also found out that a centralized or decentralized organizational

structure has an influence on knowledge management since it can enable or disable the sharing of knowledge in the company. Knowledge management cultural infrastructure is also an essential instrument in knowledge management. If the organization has not developed a culture that has mutual trust and support between the individuals, then it will be hard for the company to take advantage know-how of the employees.

Kinyua, Muathe and Kilika (2015) looked at the effect of knowledge conversion and knowledge application on performance of commercial banks in Kenya. The study revealed that knowledge conversion positively influences performance in banking and it is the first step to knowledge application. And furthermore, commercial banks should take initiatives to apply knowledge in their processes and actions so to sustain their performance in the marketplace. The application of knowledge should be embedded in the organizational structure to ensure its strict adherence by all the staffs.

Gakuo and Rotich (2017) while investigating on the effect of strategic knowledge management on performance of commercial banks in Kenya. The study noted that the organization structure consisting of its routines, direct guidelines and instructions, and self-organizing teams constitute the main mechanisms that guarantee the application of knowledge. Knowledge management also involved elaboration of details, infusion into the processes, and thoroughness as adopted by the different teams within the organization

## **Leadership**

Several studies have examined the relationship between leadership and organizational performance. For instance, Hurduzeu (2015) focused on the impact of leadership on organizational performance by examining the balancing of different stakeholders' needs. This was informed by the belief that leadership styles have a direct influence on the prosperity and the economic growth of both the organization and employees. The findings indicated that transformational leaders play a key role in organizational performance through inspiration of subordinates to strive to attain higher levels of performance. Further findings indicated that transformational leadership is appropriate in developing capacity among employees leading to improved overall organizational performance.

In another study, Madanchian, Hussein, Noordin and Taherdoost (2016) examined effects of leadership on organizational performance through examination of previous studies. Through employment of descriptive research design on empirical studies, the findings indicated that an appropriate leadership style has positive and significant influence on the success and the economic growth of the organizations. The study further indicated that leaders form the management level of the company managing the activities while the ones who were managing change were leaders form the top management level. This resulted to the reduction of high turnover and employee resistance, since they felt that they were included in the huge goal of improving development within the competition and the change in the active surrounding. The researcher noted that there were challenges in managing competition lead through unconnected change and introduction of Pepsi in the market. Finally, the study

indicated that the challenges that were faced were both internal and external, but the management solved the challenges together with the teams and structure.

Koech and Namusonge (2016) examined the effects of leadership styles on organizational performance using the case of state-owned corporations in Kenya. The study adopted a descriptive design on a sample of state parastatals located within Mombasa County. The findings indicated that several leadership styles were applied at different times depending on the prevailing circumstances. Through correlation analysis, the study established that laissez-faire leadership style did not significantly correlate to organizational performance which led to the recommendation that managers ought to it by becoming more involved in guiding their subordinates.

## **RESEARCH METHODOLOGY**

### **Research Design**

According to Maxwell (2012), the descriptive design defines the occurrence as it occurs, by gathering raw information and arranging it into a practical setup. A descriptive research design was adopted as the information is assembled without altering the environment. Descriptive research design gives answers to what, who, why, where and when (Creswell, 2012). The descriptive design considered fitting due to the observational environment of the raw information that was gathered from the study target population who are the employees working at Mars Wrigley Confectionery as they expound on the knowledge management enablers they are using and how it affects the organizational performance.

### **Target Population**

A target population is the group of people or elements with necessary information that can respond to the research questions and of which the researcher is interested in. It is well-defined showing the groups, the elements and households that the researcher wishes to investigate (Creswell, 2012). Therefore, this study focused on all the 486 employees working at the Mars Wrigley Confectionery in Athi River, Machakos County. Mars Wrigley Confectionery was selected because it was one of the biggest confectionary companies that had invested in business expansion and acquisition. The target population was grouped as per the rank of the employees from senior management staffs, middle-level staffs and junior staffs. Employees were drawn across the different levels in the organization to reduce biasness and increase diversity in the study.

### **Sampling Frame and Technique**

A sampling frame refers to source materials where the sample is selected (Yin, 2017). The sampling frame for this study comprised of senior, middle level and junior staff of Mars Wrigley Confectionery. A sample size identifies the units list of the whole population from which the researcher selected the sample from. It is the actual picture of the population being targeted and includes the units that are possible associates of a sample (Creswell, 2012). The

researcher employed a stratified sampling technique. This is where the population being targeted was placed in groups. According to Yin (2013), stratified sampling allowed a fair chance to heterogeneous elements to be selected and included in the study, for this study the target population was grouped into three strata such as senior management, middle-level and junior staff. These were deemed appropriate to ensure full representation of the findings and allow generalization to the whole population. A sample population of 214 respondents was arrived at by calculating the target population of 486 with a 95% confidence level and an error of 0.05 using Kothari (2004) formula below:

$$n = \frac{z^2 \cdot N \cdot \sigma_p^2}{(N - 1)e^2 + z^2 \sigma_p^2}$$

$$n = \frac{1.96^2 * 486 * 0.5^2}{(486 - 1)0.05^2 + 1.96^2 * 0.5^2}$$

$$n = 214 \text{ respondents}$$

Where:  $n$  = Size of the sample;  $N$  = Population Size given as 214;  $e$  = Acceptable error given as 0.05;  $\sigma_p$  = The population standard deviation given as 0.5 where not known;  $Z$  = Standard variate at a confidence level given as 1.96 at 95% confidence level.

### **Data Collection Instrument**

Data collection instruments according to Creswell (2012) are the instruments that are employed in the collecting of empirical proof in order to get new insight concerning a circumstance and give answers that speedily the research which is being undertaken. They comprise of interviews, questionnaires, focus group discussion and observations. These are tools used to gather the important information required to prove or serve some facts (Bowling, 2014). The researcher gathered primary data using structured questionnaires and secondary data using data collection sheet. The questionnaires involved two parts; the first one comprises target population its demographic characteristics, the other section comprise of the questions that cover the four study variables. The study used questionnaires because they are easy to administer with an ability to solicit fixed responses from the study respondents. Secondary data was collected to determine performance. Data was collected on net income, total assets and the total equity over a ten-year period (2009-2018).

### **Data Collection Procedure**

This is data collecting process that answered the research questions (Fowler, 2013). Self-administered questionnaires were used to collect primary data in this study as it is cost effective and the target population is also learned hence can easily read and understand the questions. The procedure records a step-by-step procedure that the researcher followed when collecting primary data in response to the research questions. The respondents were busy

working at the firm, thus the researcher adopted a 'drop and pick technique. The researcher dropped the questionnaires to the place of work of the respondents, the researcher gave them one week to fill the questionnaire then they collected for the analysis. The researcher also took phone numbers and the email address of the respondents while dropping the questionnaire that the researcher can follow up. Therefore, any question for the respondents was answered through the email and the telephone.

### **Data Analysis and Presentation**

Analysis of data is working, organizing, contravening data into units that are manageable, producing the data, understanding what is significant and what to learn while making decision on what was reported (Yin, 2013). The researcher obtained quantitative data from the study, and then the researcher coded and keyed it in the Statistical Package for Social Science (SPSS version 23.0) which is analysis software. The researcher employed standard deviation, mean, percentages and frequency distribution in the data analysis to come to an understanding. On every objective in the research, the researcher analyzed percentage and frequencies of the respondents. To simplify this, charts and graphs were employed to distribute and understand data easily. The researcher also carried out an inferential statistic by use of regression analysis to examine the nature of the connection that exists between the effects of the independent variables (Information Technology Infrastructure in an organization, Knowledge Management Strategy and Leadership and Organization Culture) and that of the dependent variable (Performance). A multiple regression equation was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon.$$

Where: Y= Performance;  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are constants for knowledge management enablers;  $\alpha$ . = error term;  $X_1$ = Organizational Information Technology Infrastructure;  $X_2$ = Organizational Culture;  $X_3$ = Knowledge Management Strategy;  $X_4$ = Leadership

### **RESEARCH RESULTS**

The purpose of the study was to determine knowledge management enablers effects on performance of manufacturing firms in Kenya at Mars Wrigley Confectionery. The study was guided by the following research questions; what is the effect of organizational information technology infrastructure on performance at Mars Wrigley Confectionery? How does organizational culture affect the performance of Mars Wrigley Confectionery? In what ways does knowledge management strategy affect the performance of Mars Wrigley Confectionery? What is the effect of leadership on performance at Mars Wrigley Confectionery?

#### **Organization Information Technology**

The study found out that majority of the respondents agreed that IT influenced the performance at Mars Wrigley Confectionery. Respondents indicated that goals and objectives

were achieved through IT business alignment as it helps in the achievement of goals and objectives at Mars Wrigley Confectionery. Respondents agreed that IT facilitated quick access of information. There was agreement among the respondents that they all had good communication skills. Respondents agreed that the staffs integrated their process through IT.

The study further found out that respondents moderately agreed that they all had IT interpersonal skills as indicated. Respondents moderately agreed that all the associates at Mars Wrigley Confectionery had the ability to write code. The findings on regression analysis established that information technology had a positive influence on performance.

### **Organization Culture**

The study pointed out that majority of the respondents agreed that they have a collaborative culture that enables the employees to work together towards achieving a common goal by sharing their ideas and skills. Respondents agreed that there was a culture that encourages associates to share knowledge. Majority of the respondents agreed that their culture facilitate decision-making capabilities through knowledge sharing. Respondents were in agreement that their culture serves as a sense-making and control mechanism that provide guidance and shape the attitudes and behaviors of associates. Respondents agreed that they had a culture that allows knowledge sharing which leads to success since it can facilitate decision-making capabilities.

The study further established that majority of the respondents were in agreement that Mars Wrigley Confectionery has a culture that allow sharing meaning to other members to understand the context and underlying meaning of the knowledge being shared. Majority of the respondents moderately agreed their company had a culture that encouraged associates to create knowledge. From regression analysis, the findings pointed a positive influence on performance.

### **Knowledge Management Strategy**

The findings pointed out that knowledge transferring strategy was applied on managing company knowledge to improve its productivity and efficiencies. Respondents agreed that their company applied knowledge creation strategy in managing company information. Respondents agreed that Mars Wrigley Confectionery sustain its competitive advantage through knowledge creation. Respondents agreed that knowledge sharing strategy was applied by their company in managing company data. The findings from regression analysis further established that knowledge management positively influenced performance.

### **Leadership**

The study revealed that majority of the respondents were in agreement that as associates their leaders motivated them. Managers behaved in a manner consistent with their values. Majority of the respondents agreed that their company had a leadership that maximized efficiency of the company. Respondents agreed that their competent leadership maximize the achievement

of organizational goals. Majority of the respondents agreed that Mars Wrigley Confectionery has a structure that provide guidance and clarity on specific issues faced by the leaders in an organization. Regression analysis further pointed out that leadership had a positive influence on performance.

## **REGRESSION RESULTS**

### **Organizational Information Technology Infrastructure and Performance**

Organizational information technology infrastructure was regressed against performance. The Model Summary which shows the value of the coefficient of correlation R and the coefficient of determination R square is shown in Table 1. The coefficient of determination R square in Table 4.6 is 0.483; this shows that 43.8% change in performance of the firm is explained by organizational information technology. The remaining 56.2% change in organizational performance is explained by other knowledge management enablers like the culture and leadership in an organization.

**Table 1: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.662 <sup>a</sup>	.438	.434	5.52852

Table 2 provides the Analysis of Variance (ANOVA) findings that were conducted at 5% level of significance. Table 2 shows the value of F calculated as 123.895 while the value of F critical is 3.901. Since F calculated (123.895) is greater than F critical, it can be summed up that the overall linear regression model was significant in estimating how organizational information technology infrastructure affected performance.

**Table 2: ANOVA Findings**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	3786.800	1	3786.800	123.895	.000 <sup>b</sup>
Residual	4859.759	159	30.565		
Total	8646.559	160			

Table 3 shows the beta coefficients. The findings in Table 3 show that organizational information technology infrastructure ( $p=0.000<0.05$ ) has significant effect on organizational performance. The finding is in line with Camisón and Villar-López (2014) who assessed organization innovation is an enabler when it comes to innovation capability of technology and the organization performance and indicated that IT is significant in the organization as it helps in the management of knowledge.

**Table 3: Organizational Information Technology Infrastructure**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.680	1.668		1.607	.110
Organizational IT Infrastructure	.524	.047	.662	11.131	.000

**Organizational Culture and Performance**

Organization culture was regressed against performance. The findings on the model summary are shown in Table 4. From Table 4, the value of R square is 0.667; this implies that 66.7% change in performance of an organization is explained by the prevailing organizational culture.

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817 <sup>a</sup>	.667	.665	4.25562

The findings of the ANOVA are reported in Table 5, which indicates an F calculated value of 318.440; this signifies that the overall simple linear model was significant.

**Table 5: ANOVA Findings**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5767.026	1	5767.026	318.440	.000 <sup>b</sup>
Residual	2879.533	159	18.110		
<b>Total</b>	<b>8646.559</b>	<b>160</b>			

Table 6 reports the coefficients and the p values. The findings in Table 6 indicate that organizational culture ( $p=0.000<0.05$ ) has significant effect on performance of the firm. This finding is consistent with Kiggundu (2013) who analyzed organizational culture and employee performance in Uganda and established that organization culture is connected to the good performance of an organization by many leaders in an organization.

**Table 6: Beta Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.149	1.194		.124	.901
Organizational Culture	.588	.033	.817	17.845	.000



## **Knowledge Management Strategy and Performance**

The study sought to determine the influence of knowledge management strategy on performance. The findings of the Model Summary are shown in Table 7. The findings in Table 7 indicate that knowledge management strategy explain 66.5% change in performance of an organization. The remaining 33.5% change in organizational performance is explained by other factors like leadership.

**Table 8: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.815 <sup>a</sup>	.665	.662	4.27087

The ANOVA findings are reported in Table 8 whose interpretation was conducted at 5% level of significance. The findings in Table 8 show that the value of F calculated is 315.034. This shows that the overall regression model was stable and therefore significant.

**Table 9: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	5746.341	1	5746.341	315.034	.000 <sup>b</sup>
Residual	2900.218	159	18.240		
Total	8646.559	160			

The findings of the model summary are shown in Table 9. The study established that of knowledge management strategy (p=0.000) which is less than 0.05. This shows that knowledge management strategy has significant effect on performance of an organization. The result is in line with Kim et al. (2014) who conducted a study to see if where knowledge management strategies affect the performance of knowledge management and noted that knowledge management is viewed as the only path of making sure that there is existence and flexibility of the company.

**Table 10: Regression Coefficients**

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	
(Constant)	4.305	.978		4.402	.000
Knowledge Management Strategy	.950	.054	.815	17.749	.000

## **Leadership and Performance**

Leadership was the other knowledge management enabler and the study sought to determine how it affected organizational performance. The findings of the model summary are indicated in Table 11. The study shows the value of R square of 0.680; this indicates that 68% change in performance of an organization is explained by leadership as a knowledge management

enabler. Thus, apart from leadership, there exist other knowledge management enablers including the organization culture.

**Table 11: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.825 <sup>a</sup>	.680	.676	4.18443

Table 12 gives the findings of the ANOVA. Table 12 shows the F calculated value as 337.935. This shows that the overall regression model was significant in estimating the influence of leadership on organization performance.

**Table 12: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	5880.070	1	5880.07	337.935	.000 <sup>b</sup>
Residual	2766.489	159	17.400		
<b>Total</b>	<b>8646.559</b>	<b>160</b>			

The findings of the beta coefficients and the p values are shown in Table 13. From Table 13, the p is 0.012 which is less than 0.05. This shows that leadership has significant effect on performance of an organization. The findings of the ANOVA are shown in Table 4.19. The finding contradicts Koech and Namusonge (2016) who examined the effects of leadership styles on organizational performance using the case of state-owned corporations in Kenya and established that laissez-faire leadership style did not significantly correlate to organizational performance.

**Table 13: Leadership and Performance**

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>T</b>	
(Constant)	-1.358	1.315		-1.032	.304
Leadership	.129	.051	.163	2.541	.012

**Knowledge Management Enablers and Performance**

The knowledge management enablers were regressed against performance to attain the overall objectives. The coefficient of determination and coefficient of correlation findings are as shown in Table 14. The findings established that coefficient of correlation R was 0.824 which indicates that the variables were highly correlated with each other. Coefficient of adjusted correlation R<sup>2</sup> was 0.666 which translates to 66.6%. The findings indicate that the 66.6% changes in dependent variables can be explained by the four independent variables; leadership, knowledge management strategy, organization culture and information technology. The residual of 33.4% explains other factors not carried out affecting the current study.

**Table 14: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824 <sup>a</sup>	.679	.666	1.44048

a. Predictors: (Constant), Leadership, Knowledge Management Strategy, Organization Culture, Information Technology

An ANOVA was carried out at 5% level of significance and the findings of  $F_{\text{Calculated}}$  and  $F_{\text{Critical}}$  are as shown in Table 15. The study found out that  $F_{\text{Calculated}}$  was 82.471 and  $F_{\text{Critical}}$  was 2.4296, therefore,  $F_{\text{Calculated}} > F_{\text{Critical}}$  an indication that the overall regression model was significant. The p value  $p=0.000 < 0.05$  an indication that the at least one variable significantly influenced performance.

**Table 15: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	451.944	4	112.986	82.471	.000 <sup>b</sup>
Residual	213.722	156	1.370		
Total	665.667	160			

a. Dependent Variable: Performance

From the results illustrated in table 16, the resultant equation becomes;

$$Y = 14.903 + 0.108X_1 + 0.117X_2 + 0.118X_3 + 0.353X_4 + \alpha.$$

Where: Y= Performance;  $\alpha$  = Is the error term;  $X_1$ = Organizational Information Technology Infrastructure;  $X_2$ = Organizational Culture;  $X_3$ = Knowledge Management Strategy;  $X_4$ = Leadership

The findings show that by holding all of the variable's constant, performance of Mars Wrigley Confectionery would be at 14.903. A unit increase in information technology while holding the other entire variable's constant, performance would be at 0.108. A unit increase in organization culture while holding other factors constant, performance would be at 0.117. A unit increase in knowledge management strategy while holding other factors constant, performance would be at 0.118. A unit increase in leadership while holding other factors constant, performance would be at 0.353.

The study established that organization information technology had a positive significant influence on performance as shown by a p value of  $0.005 < 0.05$ . The finding is in support of Wang et al. (2015) who indicated that IT influences motivation of knowledge sharing direct and indirect and improves the performance of an organization. Sellers et al. (2017) depicts that IT infrastructure allows flexibility of organizations hence improving sustainable competitive advantage

The study pointed out that organization culture had a p value of  $0.033 < 0.05$  an indication that the variable significantly influenced performance. The findings is supported by Kiggundu

(2013) who indicated that companies need main structure where the systems are made for actual activities for improvement of performance. Similarly, Mwau (2016) posits that organizational culture is utilized in companies as a strategic instrument to achieve competitive advantage.

The study established that knowledge management practices had a p value of  $0.036 < 0.05$  an indication that the variable significantly influenced performance. Kim, Lee, Chun and Benbasat (2014) knowledge management infrastructure is the foundation upon which knowledge management activities are constructed and the successful implementation of knowledge management requires adequate infrastructure in the organization which aims at improving performance.

The study further found out that leadership had a positive influence on performance as supported by the p value of  $0.00 < 0.05$ . Madanchian, Hussein, Noordin and Taherdoost (2016) indicated that leaders form the management level of the company managing the activities is the key plays of the overall performance of the company. Hurduzeu (2015) stated that transformational leaders play a key role in organizational performance through inspiration of subordinates to strive to attain higher levels of performance. Further findings indicated that transformational leadership is appropriate in developing capacity among employees leading to improved overall organizational performance.

**Table 16: Regression Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	14.903	2.324		6.413	.000
Information Technology	.108	.038	.168	2.882	.005
Organizational Culture	.117	.054	.148	2.159	.033
Knowledge Management	.118	.059	.132	1.996	.036
Leadership	.353	.036	.672	9.917	.000

a. Dependent Variable: Performance

## CONCLUSIONS

In view to organization technology, the study concludes that IT influenced the performance at Mars Wrigley Confectionery. Goals and objectives were achieved through IT business alignment as it helps in the achievement of goals and objectives. Respondents agreed that IT facilitated quick access of information. Staffs at Mars Wrigley Confectionery all had good communication skills and had integrated their process through IT. All the associates at Mars Wrigley Confectionery had the ability to write code.

In conclusion, the study shows that organization culture had a positive influence with performance. Staffs had a collaborative culture that enables the employees to work together towards achieving a common goal by sharing their ideas and skills. There was a culture that

encourages associates to share knowledge. The culture facilitated decision-making capabilities through knowledge sharing. The firm's culture serves as a sense-making and control mechanism that provides guidance and shapes the attitudes and behaviors of associates. The firm had a culture that allows knowledge sharing which leads to success since it can facilitate decision-making capabilities. Their culture allowed sharing meaning to other members to understand the context and underlying meaning of the knowledge being shared. The company had a culture that encouraged associates to create knowledge.

On knowledge management strategy, the study concludes that there was a positive influence on performance. Knowledge transferring strategy was applied on managing company knowledge to improve its productivity and efficiencies. The company applied knowledge creation strategy in managing company information. Mars Wrigley Confectionery sustains its competitive advantage through knowledge creation. Knowledge sharing strategy was applied by their company in managing company data.

In view of leadership, the study further concludes that leadership had a positive influence with performance. The associates were motivated by their leaders. Managers behaved in a way that was consistent with their values. The company had a leadership that maximized efficiency of the company. Competent leadership maximized the achievement of organizational goals. The company had a structure that provided guidance and clarity on specific issues faced by the leaders in an organization.

## **RECOMMENDATIONS**

The study recommends that the management ought to implement IT strategies in their organization to achieve set goals and objectives. The management ought to align their IT business due to its quick and easy way of achieving set targets. The management needs to ensure that every department in the organization has access to IT due to its quick mode of accessing information. The management ought to train and equip their staffs with better communication skills for better flow of information. The management ought to ensure that its associates have the ability to write and formulate codes.

The study further recommends that staffs ought to be well familiarized with the collaborative culture in the organization to help them in working together towards achieving the firm's objectives. Staffs ought to adopt the firm's culture on sharing and transferring knowledge. The management ought to ensure that their culture facilitates decision-making capabilities through knowledge sharing. The firm ought to ensure that the firm's culture acts as a control mechanism during decision-making processes. The management ought to ensure that their culture encouraged associates to create knowledge.

The study recommends that the management ought to apply knowledge sharing strategies on managing the firm's knowledge with the main aim of improving productivity and efficiency. The management needs to ensure that the firm manages company information by use of knowledge creation strategy. The management needs to ensure that the company sustains its

competitive advantage through knowledge creation. The company management need to ensure that the company managed their data by use of knowledge creation.

The study further recommends that the firms' management level need to motivate their associates. The management need to behave in a consistent way that aligns with the firm's values. The firm need to ensure that their leadership maximized efficiency of the company. The management should ensure that there is maximization of leadership in order to ensure the achievement of organizational goals. The management need to ensure that their company structure provided guidance and clarity on specific issues faced by the leaders in an organization.

## **REFERENCES**

- Adan, A. N. (2013). Effects of Knowledge Management Enablers on Organizational Performance: A Case Study of Kenya Revenue Authority. *Unpublished Master's thesis*). University of Nairobi, Nairobi, Kenya.
- Birasnav, M. (2014). Knowledge management and organizational performance in the service industry: The role of transformational leadership beyond the effects of transactional leadership. *Journal of Business Research*, 67(8), 1622-1629.
- Bortolotti, T., Boscari, S., & Danese, P. (2015). Successful lean implementation: Organizational culture and soft lean practices. *International Journal of Production Economics*, 160, 182-201.
- Bowling, A. (2014). *Research methods in health: investigating health and health services*. McGraw-Hill Education (UK).
- Boyce, A. S., Nieminen, L. R., Gillespie, M. A., Ryan, A. M., & Denison, D. R. (2015). Which comes first, organizational culture or performance? A longitudinal study of causal priority with automobile dealerships. *Journal of Organizational Behavior*, 36(3), 339-359.
- Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of business research*, 67(1), 2891-2902.
- Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Donate, M. J., & de Pablo, J. D. S. (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *Journal of Business Research*, 68(2), 360-370.
- Esterhuizen, D., Schutte, C. S., & Du Toit, A. S. A. (2012). Knowledge creation processes as critical enablers for innovation. *International Journal of Information Management*, 32(4), 354-364.

- Evans, M., Dalkir, K., & Bidian, C. (2015). A holistic view of the knowledge life cycle: the knowledge management cycle (KMC) model. *The Electronic Journal of Knowledge Management*, 12(1), 47.
- Fowler Jr, F. J. (2013). *Survey research methods*. Sage publications.
- Gakuo, E. W., & Rotich, G. (2017). Effect of strategic knowledge management on performance of commercial banks in Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(3), 19-45
- Hajir, J., Obeidat, B. Y., Al-dalahmeh, M. A., & Masa'deh, R. (2015). The role of knowledge management infrastructure in enhancing innovation at mobile telecommunication companies in Jordan. *European Journal of Social Sciences*, 50(3), 313-330.
- Hillier, F. S. (2012). *Introduction to operations research*. Tata McGraw-Hill Education
- Inkinen, H. (2016). Review of empirical research on knowledge management practices and firm performance. *Journal of knowledge management*, 20(2), 230-257.
- Karanja, P. M., & Mwaura, P. (2017). Influence of knowledge management enablers on KenGen performance: A case study of geothermal development, Naivasha. *International Academic Journal of Human Resource and Business Administration*, 2(3), 702-733.
- Kim, T. H., Lee, J. N., Chun, J. U., & Benbasat, I. (2014). Understanding the effect of knowledge management strategies on knowledge management performance: A contingency perspective. *Information & management*, 51(4), 398-416.
- Kinyua, G. M., Muathe, S. M. A., & Kilika, J. M. (2015). Effect of knowledge conversion and knowledge application on performance of commercial banks in Kenya. *International Journal of Education and Research*, 3(10), 431-445.
- Kruger, C. N., & Johnson, R. D. (2010). Information management as an enabler of knowledge management maturity: A South African perspective. *International journal of information management*, 30(1), 57-67.
- Laudon, K. C., & Laudon, J. P. (2016). *Management information system*. Pearson Education India.
- Liebowitz, J., & Frank, M. (Eds.). (2016). *Knowledge management and e-learning*. CRC press.
- Liu, H., Ke, W., Wei, K. K., & Hua, Z. (2013). The impact of IT capabilities on firm performance: The mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems*, 54(3), 1452-1462.
- Liu, M. S. (2012). Impact of knowledge incentive mechanisms on individual knowledge creation behavior—An empirical study for Taiwanese R&D professionals. *International journal of information management*, 32(5), 442-450.

- Maina, J. (2016). *Influence of organizational culture on performance of commercial banks in Kenya* (Doctoral Dissertation, School of Business, University of Nairobi).
- Meihami, B., & Meihami, H. (2014). Knowledge Management a way to gain a competitive advantage in firms (evidence of manufacturing companies). *International letters of social and humanistic sciences*, 3, 80-91.
- Mithas, S., Ramasubbu, N., Krishnan, M. S., & Sambamurthy, V. (2014). Information technology infrastructure capability and firm performance: An empirical analysis. *Ann Arbor*, 1001, 48109-1234.
- Murumba, W. (2016). Knowledge management strategy and the performance of small and medium enterprises in Nairobi Central Business District, Kenya.
- Mwau, J. M. (2016). Effect of Organizational Culture on Performance of Kenya Power Aand Lighting Company.
- Naranjo-Valencia, J. C., Jiménez-Jiménez, D., & Sanz-Valle, R. (2016). Studying the links between organizational culture, innovation, and performance in Spanish companies. *Revista Latinoamericana de Psicología*, 48(1), 30-41.
- Obeidat, B. Y., Al-Dmour, R. H., & Tarhini, A. (2015). Knowledge management strategies as intermediary variables between itbusiness strategic alignment and firm performance. *European Scientific Journal*, ESJ, 11(7).
- Obeidat, B. Y., Al-Dmour, R. H., & Tarhini, A. (2015). Knowledge management strategies as intermediary variables between itbusiness strategic alignment and firm performance. *European Scientific Journal*, ESJ, 11(7).
- Obiwuru, T. C., Okwu, A. T., Akpa, V. O., & Nwankwere, I. A. (2011). Effects of leadership style on organizational performance: A survey of selected small-scale enterprises in Ikosi-Ketu council development area of Lagos State, Nigeria. *Australian journal of business and management research*, 1(7), 100.
- Owira, A. J., & Ogollah, K. (2014). The Role of Knowledge Management Enablers in Successful Projects: Case of Construction Industry in Kenya. *European Journal of Business Management*, 1(11), 318-336.
- Pearce, C. L., Wassenaar, C. L., & Manz, C. C. (2014). Is shared leadership the key to responsible leadership?. *The Academy of Management Perspectives*, 28(3), 275-288.
- Rao-Nicholson, R., Khan, Z., Akhtar, P., & Merchant, H. (2016). The impact of leadership on organizational ambidexterity and employee psychological safety in the global acquisitions of emerging market multinationals. *The International Journal of Human Resource Management*, 27(20), 2461-2487.
- Sabherwal, R., & Jeyaraj, A. (2015). Information technology impacts on firm performance.
- Sellers, R. E., Ballard, W. H., Guillot, J., Carter, G. H., Atkins, N. W., Pausback, N. J., ... & Herrneckar, A. D. (2017). *U.S. Patent No. 9,712,409*. Washington, DC: U.S. Patent and Trademark Office.



- Shore, C., & Wright, S. (2015). Governing by numbers: audit culture, rankings and the new world order. *Social Anthropology*, 23(1), 22-28.
- Soto-Acosta, P., & Cegarra-Navarro, J. G. (2016). New ICTs for knowledge management in organizations. *Journal of Knowledge Management*, 20(3), 417-422.
- Theriou, N., Maditinos, D., & Theriou, G. (2011). Knowledge Management Enabler Factors and Firm Performance: An empirical research of the Greek medium and large firms. *European Research Studies*, 14(2), 97.
- Van Grembergen, W., & De Haes, S. (2018, January). Introduction to the Minitrack on IT Governance and its Mechanisms. In *Proceedings of the 51st Hawaii International Conference on System Sciences*.
- Wang, Y., Chen, Y., & Benitez-Amado, J. (2015). How information technology influences environmental performance: Empirical evidence from China. *International Journal of Information Management*, 35(2), 160-170.
- Wong, C. A., & Laschinger, H. K. (2013). Authentic leadership, performance, and job satisfaction: the mediating role of empowerment. *Journal of advanced nursing*, 69(4), 947-959.
- Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.