ORGANIZATIONAL LEARNING, KNOWLEDGE MANAGEMENT AND CONTINOUS IMPROVEMENT

A CASE OF GENERAL MOTORS EAST AFRICA

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D61/72570/2014

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER IN BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER 2016

DECLARATION

I declare to the best of my knowledge that this is my original work and has not been submitted

for a degree in any other university.

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DEDICATION

I dedicate this project to the Kayanda's family

ACKNOWLEDGEMENTS

I wish to thank my supervisor Zipporah Kiruthu and moderator Dr. X N Iraki for their unquestionable commitment and invaluable input that they made in this project. I sincerely appreciate the time and effort they took to go proof read and make relevant contributions. I am forever grateful to my family for their financial and moral support to the project. Lastly, I salute all the respondents that took time to respond to my questionnaires. May God bless you!

ABSTRACT

In an ever changing environment, efficiency and effectiveness in information processing is not enough, the company needs to invest in creation of information and knowledge. Analysis of an organisation on its capability to learning and managing knowledge and the end effect that it will have on the continuous improvement of the organisation is vital in determining the capacity of the organization to adapt to the ever changing business environment. The research objective was to establish the effect of organizational learning, knowledge management on continuous improvement of General Motors. The study used primary source of data that was collected by a process of self-administered questionnaires and the data analysis was through the use of mean and standard deviations while presentations was done using tables, pie charts and percentages. The findings of the study were that for effective organizational learning, there is need for collaboration among different departments and groups of staff in an organization. This is required to develop synergy between different resources groups in an organization and that the organization should come up with appropriate performance management systems, establish autonomy and freedom of different staff and sections within the organization and at the same time establish an effective reward and recognition system. The firm was found to appreciate the process of fostering knowledge creation and support the development of a knowledge management system in the organization. In addition, the creation of customer value, is considered as a core objective of knowledge management system. The organizations' employees have the responsibility to ensure that they learn how to meet customer expectation. The research concludes that a firm's ability to continuously improve its services and products is a major source of competitive advantage and just as any critical endeavor in organizations; its key success factor is reliant on the capacity of the involved managers and/or employees that would facilitate a useful use of the internal tools and/or techniques to ensure a sustainable competitive advantage for the firm in an ever changing business environment. The recommendations are that to realize effectively the organizations learning process, the top management support is paramount and therefore all managers should consider supporting fully the process.

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LIST OF ABBREVIATIONS

OL   Organisational Learning

CI   Continuous Improvement

KM   Knowledge Management

OLM   Organisation learning Mechanisms

KMS   Knowledge Management System

PDCA Plan-Do-Check-Action

DLOQ- Dimension Learning Organisation Questionnaire

KMAT- Knowledge Management Assessment Tool

CHAPTER ONE: INTRODUCTION

1.1 Background

Continuous improvement (CI) activities are on the rise as organizations are trying their best to have an edge in the business world. The areas of improvement are endless, it seems that improvement initiatives should be on a weekly basis. Unfortunately, unsuccessful programs outweigh the successful ones. (O'Reilly and Tushman, 2011).this is evident as organisations are yet to understand that to improve commitment to learn new ways. An organisation will need to learn so as to improve. Providing solutions, launching of new products and business process reengineering all require new ways of thinking and acting accordingly. Without learning companies will be in a repeat loop of old practices. Improvement will either be absent or short lived (Iandoli and Zollo, 2011).

The areas of study on organizational learning (OL) , knowledge management (KM) and Continuous Improvement (CI) has had much focus by researchers and it is deemed to grow in the future (Easterby-Smith and Lyles, 2011). The reason behind the growth is the shift towards a knowledge based economy. As Drucker (1999) insisted that knowledge workers' productivity is the greatest challenge of this century and identifying it as the true competitive edge of a global economy. With this then its therefore imperative that organisations should focus organisation learning to promote knowledge management in the present era.

Most recent studies support the impact of organisational learning on employee satisfaction and CSI (e.g. Tseng, 2010; Pantouvakis and Bouranta, 2013; Chang and

Lee, 2007; Rai, 2011).Also, recent studies on knowledge management has shown its relevance in a couple of sectors. Most of these studies focus on the relevance of KM practices; however, there are limited empirical studies, which explore the antecedents of knowledge management practices especially in a large automotive organization in an emerging economy - context (Kenya). So, this study is aimed to contribute to the literature by exploring the relationship between OL, KM and CI in an engineering firm, a case of General Motors (EA)

1.1.1 Organizational Learning

In the early 1990s in bid to be more efficient and productive organisations experimented with restructuring and reengineering. To develop new core competences organisations need to bank on organisational learning. Senge (1990) stated that the future of gaining a competitive advantage will be on how fast an organisation can learn. In an organisation that is continuously learning, the people have their capacity to offer results they truly desire expanded, out of the box thinking encouraged , aspirations achieved and the people continually learn together (Senge, 1990,p.3).thereby, organisational learning leads to a sense of employees capacity build and motivates (Bryson et al., 2016).

Marsick and Watkins (2013) suggested for an organisation to move in the direction of change then it has to invest in integrating its people and structure through organisational learning. A learning organization will reorganize itself in terms of culture and strategy to t fully maximize on the gains of OL (e.g. Dodgson, 2013; Fang et al., 2010). In so doing then the organisation will have an ambidextrous structure boosting their competitive advantage. (O'Reilly and Tushman, 2011).Therefore, it can be argued that with organisational learning in place then the employees will have capacity to enable

the company to stay competitive longer (e.g. Marsick, 2009; Dirani,2009). Without organisational learning old order will be maintained despite existing in a continuously changing environmental context (Garvin, 2010).

1.1.2 Knowledge Management

Knowledge management is the practice and technique deployed by organisations to first identify, store then distribute the intellectual capital for use across the entire organisation. (Iandoli and Zollo, 2011). The concept of knowledge and KM is complicated. In the mind of a human knowledge exists at times in a form that can neither be communicated nor even understood by other fellow beings due to the contextualization and personalization of the knowledge. As per the prior argument then Nonaka and Takeuchi (1995) argued that for a successful KM program, it needs not only focus on converting tacit knowledge into explicit and codified knowledge to share it but it should also be for individuals/groups to digest and make meaningful codified knowledge once its pulled from the KMS. Furthermore, Wang et al. (2009) extend the KM argument further by stating that the development of firm-specific knowledge benefits a firm and for which an employer needs to motivate the employees by rewarding them adequately. In Wang et al.'s study, the authors emphasize the usefulness of financial (e.g. stocks and shares) and relationship-based mechanism (e.g. long-term loyalty to firm) for developing firm-specific knowledge. More researchers (such as Huang et al., 2010; and O'Dell &Hubert, 2011) have supported the use of monetary and non-monetary rewards in facilitating and encouraging learning behavior in people.

Some researchers argue that organizations manage knowledge for different reasons. Among the reasons for knowledge management in organizations include an increasing realization by organizations that wealth comes about as a result of diligent knowledge

management as well as managing and patenting of the firm's intangible assets. The other reasons why companies resort to knowledge management include the concern that the organization's workforce is the central store where organizational knowledge resides. Furthermore, more reasons to corporate knowledge management include the premise that there is a rapid change in markets within which the businesses operate, increasing competition, and growing application of technology. The factors that foster knowledge management in organizations demand continuous improvement to remain competitive. The ripple effect from the need to invest in knowledge management recognizes the fact that innovation stems from knowledge creation as well as knowledge application. There is also a growing importance of cross-boundary knowledge transaction, this is as a result of shortcomings of the process and technology to bring to light certain types of knowledge e.g. tacit type as Baker and Baker, 2010 and Quintas, 2012 had indicated

As Bonner (2010) states, KM is a bottom-up as well as a continuous endless process that takes place within the organizational boundaries. Basing our thinking on the preceding premise by Bonner (2010), when corporate knowledge is shared, it then becomes cumulative experience. Shared in organizational information/collective knowledge becomes inbuilt within the respective organization's processes as well as products and services as per Demarest (1997).

1.1.3 Continuous Improvement

The concept of Continuous Improvement herewith referred to as CI, Deming described it simply as a philosophy that consists of progressive programs aimed at increasing the successes while reducing failures at the same time (Juergensen, 2000). In the words of Bessant et al., 1994 CI is companywide process focused on innovation progressively. Other authors such as Oakland in 1999 and another like Gallagher et al. in 1997 regard

continuous s improvement as either a part or rather an extension of already existent quality initiatives like total quality management (TQM) or as a completely whole new tact of boosting creative skill for competitive advantage in our ever changing business environment. In this regard Kossoff in 1993 simply explained that total quality be fully achieved by relentlessly being in the pursuit of continuous improvement through the full participation of all people at every level and department of the said organization.

Most scholarly works find Continuous Improvement as a culture of sustained whereby people work together and in collaboration to ensure the organization is continuously improving without necessarily having a huge capital outlay and this done by targeting the reduction of waste in all system and processes of the organisation in question. Kossoff (2013), CI can take place through a slow and progressive process of development to ensure improvements. The Continuous improvement may also take place through overhaul changes as a resulting from the advent of a new technology or an ingenious idea. More often than not significant changes occur over an extended period of time of small incremental changes, Durst and Edvardsson (2012). Regardless of the magnitude then through use of specific tool and some appropriate techniques that can provide simple solutions to many problems then continuous improvement is said to have been achieved. Ci has been explored in many ways and views over the past few decades.

Research on CI programs incorporates project execution protocols such as kaizen blitzes and off-line team initiatives, and practices used to execute projects such as process mapping and statistical analyses. Theoretical inquiries into CI programs mainly focus on project execution protocols and practices because such features reflect the distinctive logic behind each CI program (e.g. Davy et al., 1992; Fullerton et al., 2003).

For example, just-in-time management predominantly focuses on inventory reduction while total quality management starts with defect reduction. An additional area of CI that is critical is project planning – the selection and coordination of projects and preparation of the workforce to execute projects.

The absence of systematic planning for projects can result in the prioritization of unimportant issues and prevalence of knee-jerk interferences from upper management (Wruck and Jensen, 1998). Such planning is critical for organizations to target the right level of improvement through CI programs – the middle-ground between superficial and too-ambitious improvements (Hackman and Wageman, 1995). Researchers have acknowledged the importance of such project-planning issues for CI programs (see e.g. Alexander et al., 2006; Flynn and Sakakibara, 1995; Kwak and Anbari, 2006; Powell, 1995; Samson and Terziovski, 1999). However, there has been limited inquiry into the theoretical basis for this relatively standard feature of all CI programs. Moreover, planning for the CI program is primarily the responsibility of the middle-management level and above, while the execution of CI projects mostly occurs downwards from the middle level management (Garvin, 1993b). Therefore, planning issues of CI programs warrant separate inquiry from that into the execution of projects in each CI program, which has been of predominant interest

The paper also presents research conducted in this field. Through a literature review, we describe the existing research on CI to bring out an understanding of how the use of CI has impacted organizations. We also seek to explore the tools and techniques needed to achieve an ongoing cycle of improvement, and further explore the relation of CI to OL, KM, and the organization as a whole.

1.1.4 General Motors East Africa

The organisation, GMEA, was established in the year 1975. It started out as a common good partnership between the Kenyan government and GM. GMEA is the largest, volume based, assembler of motor vehicles in the entire East and Central Africa region. GMEA currently imports completely knock down parts from source plant in Japan and following strict assembly instructions builds the Isuzu commercial trucks and buses. Some vehicles are brought in a completely built units and sold to the local market through GMEA dealership network. All the vehicles sold by GMEA are specifically built to suit the local market and in matters suspension, clearance, seating capacity and powertrains. Local suppliers account to at least 30% of an entire built unit. In terms of sales volume, GMEA has held the lead in the past five year with no end in sight as it continues to build and sell the world best vehicles. The company has also invested heavily in after sales supports such as the establishment of large parts and accessories warehouses and state of the art service workshops to ensure minimal downtime during service and repair operations. With exemplary aftersales support it offers a competitive edge for GM East Africa Ltd, therefore, gives customers an excellent experience. (GM Media, January 3, 2015). With all this said it places GMEA in the best position of a study of the Kenyan automotive sector.

1.2 Statement of the Problem

General Motors (EA), leader by sales volumes in the regional automotive industry, has broken records after records with no end in sight. However, along with record growth, the local industry is also facing unprecedented challenges. Interest rates spikes, and profound shifts in economic climate are some of the major problems that are leading to

demand fluctuations. On top of that consumer expectations are continuously changing with every passing day and new technologies are also changing vehicles, from better fuel efficiency and new or improved power trains. (GM sales. January 5, 2015). Some of the problems facing Kenyan auto industry is the proliferation of second hand vehicle. The government has tried to address this issue by decreasing the age of grey imports and raising their acquisition cost by increasing the taxes levied on them in bid to drive sales of, newer, roadworthy, and locally-assembled vehicles.

It is for these reasons and learning from past experiences especially so during the post-war recession of 2008/9 that General Motors (EA) has decided to diversify and invest heavily in after-sales business with new vehicle sales margin and volume diminishing with every passing cloud (General Motors Co, May 20, 2013).In the automotive sector after-sales business has been very successful in many firms globally due to the high margins and repeat sales. (B-School Commencement, 2013: Dan Akerson). A good case example is that in the year 2014, internationally after-sales revenue for service and parts only grossed around $500 billion. Total GP have been on the rise since then. (Bloomberg Business Week, November 28, 2014). General Motors (EA)'s market growth, as well as the progressive profitability rise, is partly driven by then ever increasing car park.

The positive gains in market growth for the Organization is also attributed to the relatively sophisticated pricing of the company's spare parts. As of today, the GM East Africa's after-sales business accounts for something in the region of 40 percent to the overall profit and something greater than 25% of the TGP for most of GMEA region wide dealerships as much as it only account for about 10% of their revenue.Unfortunately, for General Motors (EA), most of its profits have always been

from new vehicle sales margins, with its future looking bleak. But without pressure, there would be no diamonds. In presence of fierce competition; efficiency, inventiveness, flexibility and decisiveness becomes mandatory. A paradigm shift is necessary for organizational learning from other global players and efficient knowledge management practices for continuous improvement will gradually shift their focus to after-sales business.

The above findings and recommendations in the area of organizational learning and how it drives CI practices indicates a need to study how these conclusions affect business in Kenya's automotive sector, a case of General Motors (EA). This study seeks to answer the following set of questions, which include: Which organizational learning mechanisms (OLMs) does General Motors (EA) use to support CI activities? What is the inherent relationship among organizational learning, knowledge management and continuous improvement? What are the challenges in implementing successful OLMs and KM to support CI activities?

1.3 Research Objectives

The general objective of this research was establish the role of organizational learning and knowledge management in the practice of continuous improvement.

Specific objectives are:

1) To establish the organizational learning approaches that General Motors (EA) uses to support CI activities.

2) To establish the knowledge management practices in General Motors (EA)

3) To establish the relationship between organizational learning, knowledge management and continuous improvement in General Motors (EA).

1.4 Value of the Study

The study proves to be beneficial to a developing country that is regarded as a small player in the global automotive industry. Intense global competition in the auto industry and the outright dominance of nations regarded as first world in international auto industry make it more unlikely for a developing county in this context Kenya to compete. As a result of the aforementioned statements then, it will be more realistic for the Kenyan automotive industry to focus more on automotive components as opposed to the focusing on the whole vehicle. However, the global automotive spare parts is also intensely competitive, though based on the fact that each motor vehicles consists of numerous parts, it offers a wider scope for new entrants into the market, in comparison to fully build units market. As the automotive spare parts market is very competitive then it prudent for new entrants to establish and sustain a competitive advantage, for their survival, which in this case is through organisations learning and managing the knowledge gained over the years to ensure continuous improvement.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

We are in world where is always continuous change (Christensen & Overdorf, 2010) organisation are stretched to produce value through unique combinations of innovation, and efficiency. These new ways of creating value can only be achieved through new ways of thinking. In our disruptive world, an organization's capacity to acquire and apply new insights has been touted as the leading source of competitive advantage. (Fiol & Lyles, 2009)

2.2 Theories on Learning

The concept of learning is perceived from various perspectives and mainly developed in the psychological field over a long evolutionary history. The application of learning at the organizational level did not come into industrial practices until the 1980s and primarily conditioned as a collectivity of individual learning, training, and development. The process of individual learning has a significant impact on the concept and practices of organizational learning. The most widely recognized approaches to individual learning are the Behavioral Theory, Cognitive Theory, Social Cognitive Theory, and Gestalt Theory, purporting to a wide range of learning modes (see Table 1). The Gestalt Theory is heavily related to the Japanese philosophy of learning and knowledge management, which emphasizes "oneness of humanity and nature," "unity of body and mind," and "oneness of self and other" (Nonaka & Takeuchi, 2013 p. 27). The Gestalt learning process, therefore, involves more about personal experience, interpersonal interactions, and is more subjective. Learning cannot take place using merely abstract thinking. It has to be achieved through bodily experiencing and recognition.

Table 1: Approached to Individual Learning

	Model	Focus	Main learning modes
Behaviourism	S-R	Reinforcer	Experiential learning
Cognitive	S-S	Mental act	Rational learning
Social cognitive	S-O-R Stimulus-	Symbolising Forethought	Observational (modelling) learning; Enactive (experiential) learning; Self-
Gestalt	Patterns of wholes	'Balance' of	Experiential learning

2.2.1 Behavioural Theory

The Behavioural Theory is an overall guideline to understand principles by which human behaviour is learned and maintained. There are four main sub-theories contributing the whole domain of Behaviourism: Pavlov's classical conditioning, Skinner's operant conditioning, Wolpe's reciprocal inhibition, and Eysenck's incubation theory. In all, the Behavioural Theory believes that "learning is the process by which an activity originates or is changed through reacting to an encountered situation, provided that the characteristics of the change in activity cannot be explained on the basis of native response tendencies, maturation, and temporary states of the organism (e.g. fatigue, drugs, etc.) (Hilgard & Bower, 1966 p. 2). Therefore, learning involves both acquisition of and, in varying degrees, the retention of behaviours" (Nelson-Jones, 1996 p.182).

2.2.2 Cognitive Theory

The Cognitive Theory recognizes learning through the association between the environmental cues and the expectancy (stimulus-stimulus) (Edward Tolman, quoted in Luthans, 1998). Learning occurs when certain cognitive cues associated with the choice point may eventually lead to a goal or a reward. Cognitive cues are argued to have a significant impact on the early human relations movement. Programs were designed to strengthen the relationship between cognitive cues such as supervisory, organizational and job procedures, and worker expectations such as incentive payment for good performance. Employees would learn to be more productive by building an association between taking orders or following directions and expectations of monetary reward for their effort (Luthans, 1998, p. 226). The concurrent cognitive science focuses more on the structures and processes of human competence such as the role of memory and information processing, rather than on the acquisition and transition processes that have dominated learning theory explanations (Luthans, 1998).

2.3 Knowledge Management

For centuries, scientists, philosophers and intelligent laymen have been concerned about creating, acquiring, and communicating knowledge and improving the re-utilization of knowledge. However, it is only in the last 25–30 years or so that a distinct field called "knowledge management" (KM) has emerged. KM is based on the premise that, just as human beings are unable to draw on the full potential of their brains, organizations are generally not able to fully utilize the knowledge that they possess. Through KM, organizations seek to acquire or create potentially useful knowledge and to make it available to those who can use it at a time and place that is appropriate for them to achieve maximum effective usage in order to positively influence

organizational performance. It is generally believed that if an organization can increase its effective knowledge utilization by only a small percentage, great benefits will result.

2.3.1 Taxonomies of Knowledge

In plain terms, knowledge can be defined as a person's or organisms' justified personal belief towards a phenomenon, object or even occurrence. Much taxonomy highlights the various types of knowledge, though the most fundamental of the taxonomies' distinction is between "tacit" and "explicit" knowledge. Tacit knowledge inhabits the minds of people and is (depending on one's interpretation of Polanyi's (1966) definition) either impossible or difficult, to articulate. While making reference to Polanyi (1962, 1967)'s work, Nonaka (1994) drew two concepts of knowledge within organizations as tacit and explicit knowledge. Tacit Knowledge is founded on an action, experience, as well as involvement in a particular context, the tacit dimension of knowledge (henceforth referred to as tacit knowledge) is comprised of both cognitive and technical elements (Nonaka 1994).

The cognitive aspect relates to an individual's mental models consisting of mental maps, beliefs, paradigms, and view- points. On the other hand, mechanical components include concrete know-how, crafts, as well as skills that apply to a particular context. An example of tacit knowledge is knowledge of the best means of approaching an individual customer—using flattery, using a hard sell, using a no-nonsense approach. The precise dimension of knowledge (henceforth referred to as explicit knowledge) is articulated, codified, and communicated in a symbolic form and or natural language. An example is an owner's manual accompanying the purchase of an electronic product.

Knowledge can also be viewed as existing in the individual or the collective (Nonaka 1994). Personal knowledge is created by and exists in the person whereas social knowledge is created by and inherent in the collective actions of a group. Nonaka and others (e.g., Spender 1992, 1996a1995b)' school of thought borrows heavily on tacit-explicit, individual-collective knowledge distinction but does not provide a comprehensive explanation as to the interrelationships among the various knowledge types. One potentially problematic aspect in the interpretation of this classification is the assumption that tacit knowledge is more valuable than explicit knowledge; this is tantamount to equating an inability to articulate knowledge with its worth. Few, except Bohn (1994), venture to suggest that explicit knowledge is more valuable than tacit knowledge, a viewpoint that if accepted might favor a technology-enabled knowledge management process (technology being used to aid in explicating, storing, and disseminating knowledge).

Whether tacit or explicit knowledge is the more valuable may indeed miss the point. According to Polyani, (1975), tacit and explicit forms of knowledge are not dichotomous states of knowledge, but mutually dependent and reinforcing qualities of knowledge: tacit knowledge forms the background necessary for assigning the structure to develop and interpret explicit knowledge. The inextricable linkage of tacit and explicit knowledge suggests that only individuals with a significant level of shared form of knowledge are in a position to exchange knowledge of any kind. For instance, if tacit knowledge is needed to enhance the understanding of explicit knowledge, then for Individual B to understand Individual A's knowledge, there must be some overlap in their underlying knowledge bases (a shared knowledge space) (Ivari and Linger 1999; Tuomi 1999)

Tacit knowledge has received greater interest and attention than has the explicit knowledge, and yet the former is not alone when it comes to the provision of the benefits as well as the organizational challenges. According to Jordan and Jones (1997), explicit knowledge may pose a particular challenge related to an assumption of legitimacy by being recorded. The challenge posed by explicit knowledge may then lead to favoritism by decision makers for explicit knowledge at the expense of contradictory tacit knowledge. Explicit Knowledge has the possibility of being viewed as a relatively more legitimate, thus dimmed more justifiable. Furthermore, given the ephemeral nature of some knowledge, explicating knowledge may result in rigidity and inflexibility, a situation that would impede rather than improve performance.

2.4 Continuous Improvement

Continuous Improvement is an ongoing process to enhance the product quality, services, and manufacturing processes. It works on the assumption that further improvements are always possible. The objective is to increase quality and reduce wastage in quest of small improvements during the process. Continuous improvement is an ongoing activity aimed at improving company-wide performance through focused incremental changes in processes (Bessant and Caffyn, 1997; Wu and Chen, 2009). The role of continuous improvement has evolved in response to new environmental challenges faced by organizations (Bhuiyan and Baghel, 2012). The vast increase in the speed, as well as the intensity of environmental changes as explained by Brown and Blackmon (2010), has resulted in expanding the objectives of continuous improvement initiatives (Cole, 2012). Continually improving process flexibility and innovation capabilities now supplement traditional continuous improvement goals of increasing efficiencies and reducing costs (Boer and Gersten, 2003). In addition to the expansion

of their objectives, the prevalence of continuous improvement programs has also increased in manufacturing and services (Barsness et al., 1993; Swamidass et al., 2001).

Some researchers have traced the historical development of the term continuous improvement. Schroeder & Robinson (1991) cite two examples of continuous improvement programs starting as far back as 1871. The first example refers to the introduction of an employee awards scheme at Denny's, a Scottish shipbuilder. The second example at National Cash Register refers to a program established in 1894, in which the company solicited written suggestions for improvements from factory workers and the company president expressed the aim of creating an organization with a "hundred-headed brain," referring to his intention of involving of all his workers in continuous improvement.

These two examples pre-date the most accepted view of when continuous improvement as a recognized methodology began to gain traction. Zangwill and Kantor (1998) indicate that CI traces its origins to two major historical trends, both dating from the 1950's. The first, according to the authors occurred at Toyota where Tiichi Ohno and Shigeo Shingo conceived Just-in-Time (JIT). The second was the quality movement and statistical reasoning, designed in the 1920's by Shewhart, and reinvigorated in a series of lectures by Deming in 1950 to Japanese executives, in which he highlighted the importance of data collection and Shewhart's Plan Do Check Act cycle (often referred to as the continuous improvement cycle)

For successful project planning in CI programs, it is essential for organizations to have in place infrastructure to support the execution of individual process improvement projects. In their research on just-in-time and total quality management programs, Sakakibara et al. (1997) found infrastructure practices common to both programs to be

significantly related to organizational performance. Irrespective of the brand of CI program in place there are common purposes that CI infrastructure needs to serve. It is important to identify the must-haves for such infrastructure necessary for selecting and coordinating projects and sustaining CI efforts (Bateman, 2005; Upton, 1996). To be able to bridge the gap in the literature on Knowledge Management, this research focuses on theoretically developing an infrastructure framework for all CI programs. We begin by describing CI and identifying its role in organizations. Next, we identify different elements of CI infrastructure that work together in fulfilling the role of CI. Based on an extensive review of organizational theory and process improvement literature we develop a conceptual framework of CI infrastructure. The constituent elements of this framework can be used as a diagnostic to help organizations assess and improve their CI initiatives – in a sense, enhance their continuous improvement.

Similarly, Bhuiyan & Baghel (2005) in their article entitled "An Overview of CI from past to present" tracks the development of particular continuous improvement philosophies, citing the development of the TWI (Training within Industry). TWI is a program set up by the US Government in the 1940's. TWI was then transferred to Japan by experts such as Deming, Juran, and Gilbreth, and which eventually developed into a wider management tool, known commonly as "Kaizen" for on-going improvement involving everyone in the organization Imai (Imai, 2014). The authors go on to explain how the various continuous improvement methodologies developed, with the evolution of the Toyota Production System (TPS) by TaiichiOhno at Toyota, which eventually formed the basis for the term Lean Manufacturing, popularized by Womack et al. (2010).

To understand the precursors and fundamentals of continuous improvement, one must look beyond the programs that have found favor in the last century. A more holistic review of continuous improvement should also consider the theme of learning. The learning theme is supported by Locke and Jain (2015), who argue that continuous improvement is synonymous with learning. Considering the history of knowledge would indeed take the research and historical development of continuous improvement beyond the late 19th Century when most authors above begin their concepts of continuous improvement. Due to the close links between continuous improvement and learning, it is worth going back to the origins of knowledge.

2.5 Summary of Literature

KM is based on the premise that, just as human beings are unable to draw on the full potential of their brains, organizations are equally unable to utilize the knowledge bases in their possession fully. With the aid of KM, organizations seek to acquire or create potentially useful knowledge and to make it available to those who can use it at a time and place that is appropriate for them to achieve maximum practical usage to influence organizational performance positively. Organizations stand to benefit a great deal if they can increase their effective knowledge utilization even by a small percentage.

A complementary to knowledge management is Organization Learning, OL. Initially, OL was referred to as the encoding of inferences from and organizational history, and aligning them into a set of routines that guide behavior (Levitt and March 1988, p. 319). Therefore, OL has to do with embedding what has been learned into the fabric of the organization.

2.6 Empirical Studies

2.6.1 Organizational Learning and Knowledge Management

March (1991) presents a seminal model of organizational learning, pre-dating coinage of the term "knowledge management" in the literature. March's model considers an external reality, specific knowledge about external reality, and an organizational code representing an approximation of external reality. March defines an individual knowledge level as the proportion of external reality correctly represented by a particular knowledge vector. Separately, the proportion of reality correctly represented by the organizational code defines an organizational knowledge level. Both individual and organizational knowledge level potentially change via organizational learning.

March expands his formative model to consider a more open system, comprising personnel turnover and environmental turbulence. For each iteration, every individual has the potential to leave an organization and be replaced by a naïve person, with a probability p3 reflecting this human resource turnover. New employees enter an organization with randomly distributed ideas and or cultural beliefs. More so, every aspect of external reality bears a potential to flip with a probability p4, apparently reflecting the external environmental and its chaotic state. According to March's model, there is an intentional preclusion in individuals as well as organizations, from directly experiencing and observing the external organizational reality. However, important to note is the aspect that improvement in people, as well as organizations knowledge levels, emanate from the organizational way of adapting to the knowledge of expertise individuals or stems from people within the organization aligning themselves to the understanding of the corporate code. The business code can only distinguish expert

employees by their optimal different knowledge levels, and cannot pinpoint which particular beliefs are true or false for a given dimension of reality.

Within the same line of knowledge management, Carley (1992) further employs the organizational model to put into consideration the organizational learning as well as personnel turnover within organizations. Carley extends her research further by examining research before the coinage of the term "knowledge management." In her research, Carley finds that institutionalized memory, which is embodied in the memories of distributed individuals and their interpersonal relationships, determines the consequences of personnel turnover. Her research regarding personnel turnover informs research regarding knowledge retention and loss within organizations of mobile personnel.

Cramton (2011) extends research by both March and Carley to consider the problems associated with maintaining mutual knowledge among geographically dispersed collaborative individuals. The researcher identifies five types of common knowledge failures. The first knowledge failure is the inability to communicate and retain contextual information. The second knowledge failure is the unevenly distributed information, while the third is the difficulty in communicating and understanding the salience of information. The fourth and fifth challenges include the differences in the speed of accessing information and the difficulty in interpreting the meaning of silence (or non-contribution of information) respectively.

Even though Cramton considers information sharing at a specific level, her research is informative when it comes to the field of KM research. Further, Cramton explains mutual knowledge as knowledge that communicating parties share in common and know they share the piece of information. Cramton argues for the importance of such

knowledge since her research suggests mutual knowledge increases the likelihood of understanding between parties.

2.6.2 Relationship between organisation learning and continuous improvement

Many scholars suggest that studies regarding organizational performance have to incorporate multiple criteria at least, according to Lewin and Minton (1986). In Lewin and Minton's research, Firm's performance construct happens to be measured in from aspects, namely; knowledge creation as well as financial performance. Besides the more conventional economic considerations criterion, the modern-day global developments indicate that an organization's ability to create new knowledge as well as more specifically convert the knowledge into new patents as well as products, or intellectual capital. In summary, continuous improvement is equally important if not more, for the success of any given organization. In simple terms, the creation of knowledge capital is an important indicator of organizational performance. Several scholars have developed different approaches to measuring knowledge capital, and they primarily focus on the key indicators of the future strategic value for the organization. According to Beck (1992)'s count of the number of patent disclosures, there is a percentage of knowledge/skilled workers among the overall workforce, irrespective of whether the investments in a firm's technology are steadily increasing or not increasing. Scholars seem to find a positive correlation between Organization Learning and both the perceptual and objective measures of a firm's performance (Dellinger et al., 2002; Yang et al., 2004; Goh and Ryan, 2008).

In a study conducted in 200 Australian organizations according to Power and Waddell (2004), it was found that learning organizations show a moderate to a strong link with

three measures of performance (knowledge performance, Financial performance, and customer satisfaction) at a Self-Managed work team level. In another study of small-to-medium-size enterprises conducted in Taiwan as per Tseng (2010), it was found that there is a positive impact when Organizational Learning Culture is applied in organizational effectiveness.

Learning can be facilitated in organizations through the creation of "learning cultures," where learning, retention, debate, and discussion are encouraged (Lopez et al., 2004). When the learning opportunities are embedded in the organizational decision-making processes (as Carroll et al. (2006) states, project-based work becomes standard through processes like post-project reviews, as reiterated by Ron et al. (2006). Therefore, learning within organizations can be characterized by the involvement of dynamic reciprocity between the respective learning process at the individual, team as well as organizational level (Berends and Lammers, 2011).

2.7 Conceptual Framework

To conceptualize the prevalent relationship among organisation learning, knowledge management and contionous improvement as Easterby-Smith, and Lyles in 2003 we will have organistaion leraning to focus on creation of new and relevant information from the data in the environment , knowledge mangement to invlove the process of managing the information that was earlier on created with a goal of ensuring there is continuous improvement in the organistaion acting as a source of competitive advantage in the ever changing business environmnt. In other words OL is focussed on the content , KM tin the other hand focusses on the processs and finally CI is the goal/ product of an effective OL and KM.

From the above its clear that for an organisation to fully leverage on knowledge utilisation then it has to invest in OL and KMas . Dixon (1994) had described the cycle of an organistaion learning. After CI is achieved whatever has been lernt should be institutionalized and doccumented as the operating procedures and policies for posterity

Figure 1: Conceptual framework

Independent Variable	Dependent Variable
Organisational Learning	**Continuous Improvement**
• Innovate	• Improved products
• Individual Learning	• Improved processes
• Collective Learning	• Improved relationships
• Collaborate	• Improved organisational behaviour
• Decision making	

Control Variable

Knowledge Management

• Acquire
• Refine
• Store
• Transfer
• Reuse
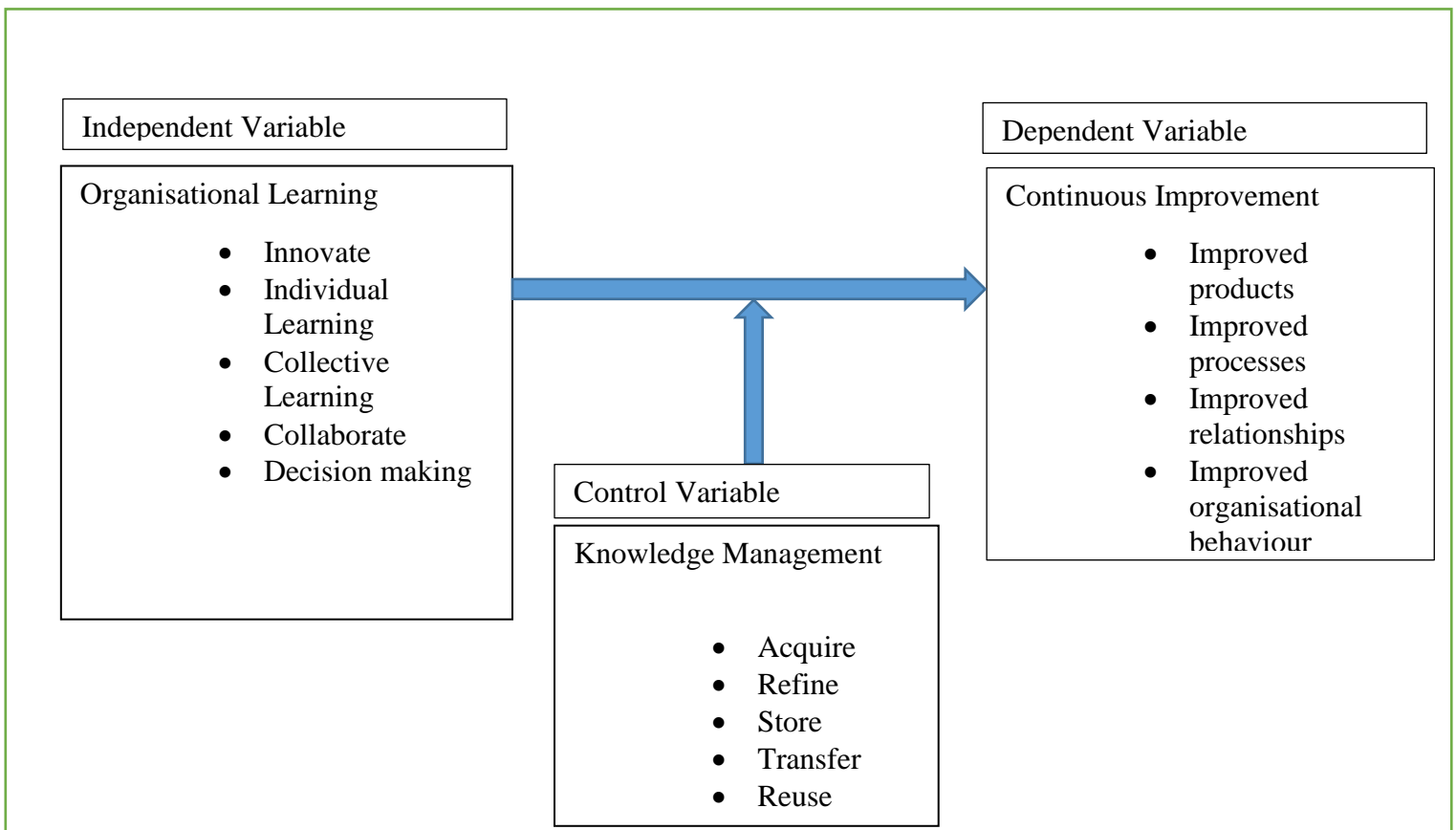
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The main aim of this chapter was to clearly unravel how the research methodology that was used in this paper. The research methodology outlined includes the research design, study population, data collection and data analysis in order to come up with the research findings.

3.2 Research design

The study adopted a sample survey due to the large size of the population. This research design is chosen as it was suitable and appropriate to describe and analyze the concerned population in terms of its activities on organizational learning, knowledge management and continuous improvement.

3.3 Study population

The population consists of 100 executives and supervisors. The executives ranged from a junior level to middle management and senior management just below the top management. The tenure of employees varies from minimum of 3 years to more than 30 years, and the age varies from 26 to 60 years. Most of the executives have a graduate degree in engineering and many of them have postgraduate qualifications ranging from masters in engineering to master's in business management. Employees were chosen from an entire spectrum of various departments of General Motors (EA) like engineering disciplines, procurement, commercial, finance, human resource and Information Technology

3.4 Sampling

A simple random sample mix of 50 executives and supervisors were selected and questionnaires distributed to them. A simple random sample was used as it gives all the employees an equal chance of being selected eliminating any bias.

3.5 Data Collection

Data was collected by administering questionnaires to the respondents with the consent of the respective section heads. Questionnaires were then distributed to 50 participants. The entire survey items were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire that was distributed is detailed in Appendix 1

3.6 Data Analysis

Self-report measures were used to obtain the data on and both predictor criterion variables. Organisation learning approaches were measured through a questionnaire that Marsick and Watkins (2003) had developed. The DLOQ measured respondents' perceptions on five learning organization dimensions. To create a learning organisation then collaboration in learning, performance management system, autonomy and freedom, reward and recognition and finally sponsorship are vital elements that need to be in a firm. Previous studies prove a strong reliability and validity of DLOQ (e.g. Hernandez and Watkins, 2003; Yang et al., 2004; Egan et al., 2004).

The aspect of Knowledge Management was brought into picture through a Knowledge Management Assessment Tool (KMAT) (1997), this is a questionnaire that was developed from Arthur Andersen and American Productivity and Quality Centre. For knowledge management approach to prove to be evident in an organisation then, the firm need to have a leadership that promotes knowledge management by investing in relevant processes and systems and also there is also need for a knowledge management culture. Studies have shown the usefulness of the KMAT tool (e.g. Jain and Jeppesen, 2013).

CI and the relationship between OL, KM and CI was measured through a questionnaire that focused on proof of knowledge creation. Financials statements were also analyzed to show any

considerable improvements on year on year basis for factors such as gearing ratio return on investment and total gross profit. Further, for control purposes age and experience were used.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The main objective of this research was to establish organizational learning, knowledge management and continuous improvement at General Motors (k) Ltd. Analysis, findings and discussion are clearly detailed in this chapter. Statistical methods clearly present the findings in terms of percentages frequency distributions, mean and standard deviations.

4.2 Background Information

For the background information during the study factors such as current serving position, length of continuous service/ experience at the organisation and finally the highest level of education attained. The findings above indicated that for a vast majority of the respondents had an experience of more than 10 year at General Motors east Africa. In addition, some of the respondent had worked in the particular organisation for a period between 5-10 years. This implies that the organisation had experience employees and therefore will be valuable to the realization of the research objective.

The finding indicated that 72.7% of the responded had attained degree level of education while 27.3% of the respondent indicated had not attained degree. The results clearly show that most of the employees had attained at least a bachelor's level of education and therefore they have knowledge on the role of organizational learning and knowledge management in the practice of continuous improvement meaning their responses will actually be meaningful information to the course of this paper.

4.3 Response Rate

A total of 50 questionnaires were dished out for data collection purposes and 36 were returned. Statistically this was a response rate of 72% which is adequate enough for data analysis purposes as it is in conformity to Mugenda and Mugenda (2003) stipulation where he clearly said that a response rate of above 70% is satisfactory. Moreover, in relation to the period that the researcher took on follow up with the respondents, the odds of receiving more questionnaires as time passed kept dwindling and therefore, this was considered quite adequate for the research analysis purposes.

4.4. Factors influencing organizational learning

A learning organisation is one that always facilitates and ensure that all its member are always learning and is ever transforming itself to fit the changing business environment. This section of the questionnaire sought to establish the factors influencing organization learning at GM. The factors considered include collaboration and team learning, performance management system, autonomy and reward recognition.

A 5 point Likert scale was used from a low of (1) 'strongly disagree' to a high of (5) to 'strongly agree'. Disagreeing scores have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale ;($0 \leq S.D \leq 2.4$). neutral scores have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale: ($2.5 \leq M.E. \leq 3.4$) and the score of both agree and strongly agree have been taken to represent a variable which had a mean score of 3.5 to 5.0 on a continuous Likert scale; ($3.5 \leq S.A. \leq 5.0$). A standard deviation of > 0.9 implies a significant difference on the impact of the variable among respondents.

4.4.1 Collaboration and team learning

The respondents were requested to indicate the how collaboration and team learning influences organizational learning in General Motors (EA). The results are presented in Table 4.1.

Tables 4.1 Collaboration and team learning

Statement	Mean	Std. Deviation
In my department, people assist one another to learn	4.091	.701
In my department, there is trust amongst colleagues	4.091	.539
In my department, people always consult one another in regard to what they think.	4.000	.775
My department there is quick and easy retrieval of information	3.455	.934
In my department, there are always group discussions to share thoughts	3.091	.831
In my department there is no fear of making mistakes	2.818	.982

As a factor influencing organizational learning, the most dominant form of collaboration was that the staff pointed out that in their departments, people assist one another to learn and there is trust amongst colleagues (M=4.091) and this is augmented by a high level of trust that exist (M=4.091). The respondent also noted that in their department, people always consult one another in regard to what they think (M=4.000) before undertaking any action that will influence the performance of the other member of staff. However, the results on there being no fear of making mistakes (M=2.818) was disagreed by the respondents and the low standard

deviation shows that there was more concurrence on the statement. This indicates that the department was well collaborated and practiced team learning which increased their trust.

4.4.2 Performance Management System.

This section of the questionnaire sought to establish whether performance management system influences organizational learning. The results are presented in Table 4.2

Table 4.2: Performance management system.

Statement	Mean	Std. Deviation
My department has a system in place to measure variance between expected and achieved results	3.636	.809
My department accounts for all the time and resources spent on training employees	3.546	.522
My department has a database of all employees skill set	3.364	1.026
My department shares to all employees information on lessons learnt	3.091	1.044

The findings are that existence of a system to measure variance between expected and actual results (M=3.6364) was agreed by the respondents as a major factor that influences organizational learning. In addition, training and development opportunities being provided by the departmental heads (M=3.546) was yet another performance measurement system that enhanced organizational learning. To a moderate extent the respondents pointed out that the existence of a data base of all employees skills set (M=3.364) was pointed out as a factor that influences organizations performance. This indicates that performance management system is important to the department because it provides the actual performance of the organization.

4.4.3 Autonomy and Freedom

The influence of employees' autonomy and freedom on the organizational learning was sought from the respondents. The results are presented in Table 4.3.

Table 4.3 Autonomy and freedom

Statement	Mean	Std. Deviation
In my department, there is autonomy in treatment, regardless of position.	3.818	.979
In my department, those are leadership position always in search for opportunities to learn.	3.182	.982
My department encourages open and candid discussions	3.000	1.183

The findings are that equal treatment of all employees in allowing them some level of autonomy to operate came out as a strongly agreed (M=3.818) measure that lead to increased organizational learning in the organization as well as top management leadership always seeking opportunities to learn (M=3.182). The respondent further noted that their department encourages open and candid discussions (M=3.000) of an emerging issue. This results show that to a large extent, GM has provided its employees with some level of autonomy on their functions without losing responsibility of their actions.

4.4.4 Reward and recognition

An organizations reward system, both financial and non-financial rewards influence an organizations learning process. The results are presented in Table 4.4.

Table 4.4 Reward and Recognition

Statement	Mean	Std. Deviation
In my department, there are constant Team awards for exemplary achievement	3.757	.905
In my department, learning is encouraged and rewards accorded.	3.273	1.421
In my department, there is a general consensus from teams that the organisation will act on their appraisals.	3.091	1.045

The result indicate that the popular form of rewards that influences organizations learning was team awards being bestowed to staff for exemplary achievement (M=3.757) and also encouraging of individual learning and rewards accorded accordingly (M=3.273). However in the second point, there was high standard deviation (SD=1.421) meaning that there was a high variation in the responses by the respondents'. This indicates that reward and recognition contribute to the achievement of employee thus motivating them in working harder.

4.4.5 Sponsorship

In the pursuit of staff and organizations learning, each firm should set aside some resources to facilitate the learning process. The researcher sought to find out how the GM applies the sponsorship strategy to enhance the learning process. The results are presented in Table 4.5.

Table 4.5 Sponsorship

Statement	Mean	Std. Deviation
In my department, resources e.g. funds are availed to support learning	3.627	.914
In my department, study leaves are issued to support learning	3.373	.921
My department engages the community in support of learning	3.022	1.044

The finding indicated that sponsorship was strongly acknowledged through respondent supported department, resources e.g. funds are availed to support learning (M=3.6269) and in their department study leaves are issued to support learning (M=3.3726). The respondent further indicated that my department engages the community in support of learning (M=3.0220). It can be concluded that sponsorship in General Motors is very effective

4.5 Factors Influencing Knowledge Management Practices

The researcher also sought to determine the factors that influence knowledge management practices at General Motors. These include Knowledge management process and leadership and knowledge management culture.

4.5.1 KM process and leadership

The results on the knowledge management process and leadership are presented in Table 4.6.

Table 4.6: KM process and leadership

	Mean	Std. Deviation
Knowledge management system is effective in serving its purpose	3.727	.986
Knowledge management is central to the organization strategy	3.557	.989
Organisation learning supports core competences and is used to create new ones.	3.455	1.128
There exists a formal process of transferring best practices, including documentation and lessons learnt	3.378	.905
Tacit" knowledge (what know how to do, but cannot express) is valued and transferred across the organization	3.101	.831
There is a well-defined process of identifying knowledge gaps	2.909	.9438

In fostering knowledge creation, the findings found that development of a knowledge management system is effective in serving the purpose (M=3.727) and centralizing the process of knowledge management in the organization strategy (M=3.557),. In addition, the organization learning supports core competences and is used to create new ones (M=3.455). The respondent further noted that there is a well-defined process of identifying knowledge gaps (M=2.909).

4.4.2 Knowledge Management Culture

The culture of the organization should also be tailored towards provision of a mechanism in which knowledge is appreciated by the top leadership and is supported by the entire organizations system and processes. The results on how the organizations culture affects the knowledge management practices is presented in Table 4.7.

Table 4.7 Knowledge Management culture

	Mean	Std. Deviation
Customer value creation is regarded as a core objective of knowledge management	4.0790	.92103
Employees have the responsibility to ensure that they learn	3.8182	.75076
Sharing of knowledge is encouraged within the organisation	3.7974	1.10371
Trust and openness permeates within the organization	3.5455	1.03573

The result indicate the customer value creation is considered as the core objective of knowledge management (M=4.079) and through the same employees have the responsibility to ensure that they learn (M=3.818) how to meet customer expectation. The respondent noted that sharing of knowledge is encouraged within the organization (M=3.797) and that trust and openness permeates within the organization (M=3.546). This indicates that knowledge management culture in organization improves customer value and easy communication in the organization.

4.6 Continuous Improvement

Effective knowledge management is expected to influence organizations process of continuous improvement. The researcher sought to find out the factors that influence continuous improvement process at General Motors. The results are presented in Table 4.7.

Table 4.7 Knowledge creation

	Mean	Std. Deviation
In my department, there is an increase in number of knowledge workers compared to the previous year	3.573	.988
In my department, there is an increase in number of individual gaining new skills compared to the previous year	3.227	.908
In my department, there is an increase in the percentage of total budget devoted to technology and information processing	3.173	.905
In my department, there is an increase in implemented suggestions.	3.000	1.095
In my department, CSI has improved compared to the previous year.	2.909	.831

The finding shows that the departmental heads appreciated that as a result of knowledge me management at GM, there has been an increase in number of knowledge workers in comparison to the preceding year (M=3.573) and increase in number of individual gaining new skills compared to the previous year (M=3.227). In addition, the respondent noted that the department had increased their percentage of total budget devoted to technology and information

processing (M=3.173). The finding further show that in department, there is an increase in implemented suggestions (M=3.0000) and CSI has improved compared to the previous year (M=2.9091). This implies that knowledge creation increases knowledge skills and number of employees that have gained individual skills.

4.7 Executive Summary of Financials

An effective comparison of the preceding and current year was performed as shown below. To ensure continuous improvement and hence a relationship between OL, KM and CI then the below results were obtained.

Brand	GENERAL MOTORS		
Page	Executive Summary	YTD2015	YTD2016
		"000,000"	"000,000"
Total	PROJECTED ANNUALISED SALES		
	Average Operational Assets	14,000.00	16,380.00
	Sales	25,000.00	29,250.00
	MIX: Gross Profit	11,000.00	12,870.00
	MIX: GP % of Sales	44.00%	51.48%
	Total Expenses	8,000.00	9,360.00
	Total Expenses % of GP	72.73%	85.09%
	PBT	3,000.00	3,510.00
	PBT % of Sales	12.00%	14.04%
	RETAINED: PBT % of TGP	14.00%	16.38%
	ACTIVITY	2.00	2.34
	ROOA (MxRxA)	90.00%	105.30%
New Vehicles	Units per Productive	24.00	28.08
	MIX: GP % of Sales	11.00%	12.87%
	PBT % of Sales	20.00%	23.40%
	RETAINED: PBT % of TGP	13.45%	15.21%
	TGP - PNU	24.00	28.08

	Return on Gross Assets (ROGA)	12.00%	14.04%	
Used Vehicles	Units per Productive	23.00	26.91	
	MIX: GP % of Sales	2.00%	2.34%	
	RETAINED: PBT % of TGP	12.00%	14.04%	
	PBT % of Sales	24.00%	28.08%	
	TGP - PUU	134.00	156.78	
	Return on Gross Assets (ROGA)	11.00%	12.87%	
Service	Labour GP % of TLS	21.00%	24.57%	
	MIX: Service GP % of TSS	21.00%	24.57%	
	PBT % of Sales	30.00%	35.10%	
	RETAINED: PBT % of TGP	17.00%	19.89%	
	TGP PNUR (Per New Unit Retailed)	13.00	15.21	
	Work Bay Utilization	85.00%	99.45%	
Parts	MIX: GP % of Sales	45.00%	52.65%	
	PBT % of Sales	12.00%	14.04%	
	RETAINED: PBT % of TGP	15.00%	17.55%	
	TGP PNUR (Per New Unit Retailed)	130.00	152.10	
	Return on Stock Investment (ROSI)	8.00%	9.36%	
Finance & Insurance	New Vehicle F&I TGP/PNU	41.00	47.97	
	Used Vehicle F&I TGP/PUU	12.00	14.04	
	PBT % of TFIS	12.00%	14.04%	
	PBT per unit	12.00	14.04	
Total Cost Recovery (TGP% of Total Expense)	New	47.00%	47.00%	
	Used	14.00%	14.00%	
	F&I	9.00%	9.00%	
	Parts	10.00%	10.00%	
	Service	8.00%	8.00%	
	Driveway			
	Other			% change
		12.00%	12.00%	
	TOTAL	100.00%	100.00%	
	ROI: Return on Investment	3.00%	3.51%	15%

	Gearing			
	Debt/Equity	0.468	0.396	14.9%
Risk and Performance Ratios	Inventory Gearing	0.32	0.24	25%
	Current Ratio	1.03	1.05	0%
	Total Inventory Days	87.00	120.00	27.5%
	Total Debtor Days	90.00	90.00	0%

The financials show there that debt to equity has improved considerably by 14.9% from 0.468 to 0.398, inventory gearing has also improved by 25% from 0.32 to 0.24, current ratio and total debtor days has also remain fairly stable with no significant change whereas total inventory days has digressed significantly by 27.5% from 87days to 120days.

4.8 Discussion of the finding

An organisation that deals with a changing environment should not only process information efficiently, but also create information and knowledge. Therefore, the ability to analyse an organization in terms of its design and ability to process information constitutes an important approach to interpreting certain aspects of organisational activities. One of the practices that has been found to enhance organizational performance is organizational learning process. The basis of continuous improvement is the need for the organizations process and products to be continuously improved to meet the desires of the customers.

The study identifies that organizational learning reflects in 'accompanying changes' that have to take place in an organization and as Garvin, (2003) found out, if no behavioural or cognitive changes occur in an organization, then organizational learning has not occurred and the only thing that remains unused is potential for improvements. This position was consistent with the research findings that the organizational learning at GM involved collaboration and team leaning process, performance management autonomy and freedom as well as establishment of

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effective an effective and reward system. This is because when looking at the cognitive changes that have to take place in an organization, Fiol and Lyles (1985) found that the learning process should take place at basically two levels of learning; there is need for both the lower-level learning that reflects changes within organizational structure, which are short-term and only partially influence organization. Higher-level learning reflects changes in general rules and norms which require long-term period to implement.

The study found that organization learning affects positively how people react to a particular change in the environment. It is expected that employee learning process change their behavioural and perception to changes in the environment and from this an employee should be able to discern changes required in the internal environment and how the same will improve the operations performance. Indeed, Jones (2000) emphasizes the importance of organisational learning for organisational performance defining it as a process through which managers try to increase organisational members' capabilities in order to understand better and manage an organisation and its environment to accept decisions that increase organisational performance on a continuous basis'. This position supports General Motors position because what came out from the collaboration and team learning process being undertaken in the organization was that the leadership of the firm seek to equip its staff to appropriately react to the demands of the market.

From the findings, there is an agreement as that made by Deming, Feigenbaum, Ishikawa, and Juran (2002) that the objective of organizations continuous improvement is to reduce costs and improve customer satisfaction. This means that the findings will support the market-based theory that the competitive advantage arising from a superior cost structure or being able to differentiate products in a way that adds value for customers and by producing products that better satisfy the requirements of customers, come from equipping the staff to produce good s

and services that the customer wants. However, this can only be attained if the same employees are equipped with the necessary skills and knowledge necessary to deliver the same.

In any business unit, it is recognized that neither managers nor employees have all the necessary skills and expertise to perform all the tasks assigned. Consequently, for purposes of increasing their quality service level, they need to be educated about quality concepts, and to do this, they have to be trained in the use of quality tools and techniques. There is need therefore for the organization to provide appropriate training and development programs to staff which will enable them to perform according the continuous improvement programs established in the organization. The findings also suggest that the organization undertakes regular and continuous training aimed at improving the quality of the firm's products. This position is consistent with that of Birdi et al. (1997) who noted that a variety of organizational and environmental factors influence training activity and therefore management support contribute to the development activity. They also pointed to the complexity of the relationship among organizational environmental factors as elements of the ``continuous learning culture'' in organizations. Indeed, Škerlavaj et al (2007) established a statistically significant link between organizational learning cultures on organizational performance as determined by quality of products.

CHAPTER FIVE: SUMMARY, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the key findings of the study as well as the conclusions, limitations of the study, and recommendations for further research.

5.2 Summary of Findings

The role of organizational learning and knowledge management is long-term in nature and involves a change of culture to different facets of an organization. This is because for effective organizational learning, there is need for collaboration among different departments and groups of staff in an organization. There is need for the development of a synergy between different resources groups in an organization that as much as the organization staff through the processes are expected to come up with continuous improvement programs; the firm should also come up with appropriate performance management systems, establish autonomy and freedom of different staff and sections within the organization and at the same time establish an effective reward and recognition system. The finding of this study is that organizational learning is both a driving force to competitive strategy selection   through a well-resourced staff and an important resource to achieving improved organizational performance.

The second objective was to establish the knowledge management practices in General Motors (EA). In this regard, the findings of the study were that after an organization has come up with appropriate organizations learning process, it needs to safeguard the knowledge gained. This was to be realized through establishment of appropriate knowledge management processes and leadership; as well as establishment of a culture that appreciate the staff with the unique capabilities. The firm was found to appreciate the process of fostering knowledge creation and the support of the development of a knowledge management system in the organization. In addition, customer value creation is considered as the core objective of knowledge management

the organizations employees have the responsibility to ensure that they learn how to meet customer expectation.

The study found that organization learning affects positively how people react to a particular change in the environment. This is because organizational learning processes influence employee learning process and change their behavioural and perception to changes in the environment and from this an employee should be able to discern changes required in the internal environment and how the same will improve the operations performance. The findings also showered existence of the relationship between organization learning and continuous improvement in the organization. Therefore, there is a positive relationship between organisational learning and organisational continuous in products and processes.

5.3 Conclusion

This study has sought to explore the relationships between organizational learning and continuous improvement at General Motors. In conclusion, the business challenges that face a firm cannot be underestimated and therefore, it through a proper strategy choice process that well incorporates continuous improvement that an organizations can attain and maintain its positive performance.

A firm's ability to continuously improve its services and products is a major source of competitive advantage and just like any important and major endeavor in organizations; its success depends on the capacity of those involved – managers and employees – that would facilitate a better deployment of the internal tools and techniques to attain a sustainable competitive advantage for the firm.

The organizational learning process should be an all-inclusive process whereby all systems and processes in the firm are combined to bring the necessary synergy among the organizations

internal resources. The study reinforces the need to establish a collaborative and team learning process, establishment of a performance management system a performance reward and recognition system that will attract and retain competent staff who will steer the organization to greater level of performance.

Upon generating the necessary knowledge, there is need for an organization to come up with an appropriate knowledge management practice that has top management support and processes that can adjust quickly to market demands. This needs to be supported by an appropriate knowledge management culture.

5.4 Recommendation

To generate a full potential of organization learning process, it is necessary train all people at all levels in order to create Ta continuous improvement culture in an organization and generate necessary awareness, interest, desire and action. Thus, top management attention might be fruitfully focused on the development of appropriate training programs on continuous improvement. Similarly, organizational managers should consider suppliers and other business partners as important group of stakeholders and for successful realization of continuous improvement; they need to be brought in during the learning process.

The study also revealed, and confirmed some earlier findings, that financial measures alone are not good predictors of organisational continuous improvement. Instead behavioural and cognitive changes' in the organization learning is important for enhancing organisational performance.

5.5 Limitations of the Study

The limitation of the study was that as with other research that uses questionnaire as the instrument to collect data, there may be a problem of social desirability. Some respondents may have the tendency to exaggerate or provide responses deemed to be desirable by others, instead of giving honest responses. The results and implications drawn from this study should be viewed in light of the research method employed. Some of the inconsistencies observed could have arisen from the nature of the sample. The sample came from a single industry and hence the generalizability of the results is limited.

The respondents may be hesitant to give some information to the researcher, which they regard as confidential in nature. To overcome this limitation, the researcher will assure the respondents that the information will strictly be used for the study. The respondents will not be asked to write their names on the questionnaire and the employee demographics page will be detached immediately after data entry to ensure confidentiality.

5.6 Suggestion for Further Research

The study was undertaken on the role of organizational learning and knowledge management in the practice of continuous improvement by General Motors. It is recommended that future research studies can examine how knowledge management is important in the practice of continuous improvement and performance of a firm. In addition, it will be interesting to see when additional constructs of organizational learning are introduced in the research instrument.

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APPENDIX

Appendix 1:

The Questionnaire Kindly assist fill this questionnaire.

Section A: Organisational Learning, Knowledge Management and Continuous Improvement

1. Please circle one choice for each of the following statements

    (1=strongly disagree, 2=disagree, 3=nor disagree nor agree, 4=agree, 5=strongly agree)

Factors Influencing Organisational Learning

Table AI. Factor 1: collaboration and team learning

(number of items = 6)

1	In my department, people assist one another to learn	1	2	3	4	5
2	In my department, people always consult one another in regard to what they think.	1	2	3	4	5
3	In my department, there is trust amongst colleagues	1	2	3	4	5
4	In my department there is no fear of making mistakes	1	2	3	4	5
5	In my department, there are always group discussions to share thoughts	1	2	3	4	5
6	My department there is quick and easy retrieval of information	1	2	3	4	5

Table AII. Factor 2: performance management system (number of items = 4)

7	My department has a system in place to measure variance between expected and achieved results	1	2	3	4	5
8	My department shares to all employees information on lessons learnt	1	2	3	4	5
9	My department accounts for all the time and resources spent on training employees	1	2	3	4	5
10	My department has a database of all employees skill set	1	2	3	4	5

Table AIII. Factor 3: autonomy and freedom (number of items = 3)

11	My department encourages open and candid discussions	1	2	3	4	5
12	In my department, there is autonomy in treatment, regardless of position.	1	2	3	4	5
13	In my department, those is leadership position always in search for opportunities to learn.	1	2	3	4	5

Table AIV. Factor 4: reward & recognition (number of items = 3)

14	In my department, there are constant team awards for exemplary achievement	1	2	3	4	5
15	In my department, there is a general consensus from teams that the organisation will act on their appraisals.	1	2	3	4	5
16	In my department, learning is encouraged and rewards accorded.	1	2	3	4	5

Table AV. Factor 5: sponsorship (number of items = 3)

17	In my department, resources e.g. funds are availed to support learning	1	2	3	4	5
18	My department engages the community in support of leraning	1	2	3	4	5
19	In my department, study leaves are issued to support learning	1	2	3	4	5

Factors Influencing Knowledge Management Practices

Table AVI. Factor 1: KM process and leadership (number of items = 6)

1	Knowledge management system is effective in serving its purpose	1	2	3	4	5
2	There is a well-defined process of identifying knowledge gaps	1	2	3	4	5

3	Knowledge management is central to the organisation strategy	1	2	3	4	5
4	There exists a formal process of transferring best practices, including documentation and lessons learnt	1	2	3	4	5
5	Organisation learning supports core competences and is used to create new ones.	1	2	3	4	5
6	Tacit" knowledge (what know how to do, but cannot express) is valued and transferred across the organization	1	2	3	4	5

Table AVII. Factor 2: Knowledge Management culture (number of items = 4)

7	Employees have the responsibility to ensure that they learn	1	2	3	4	5
8	Sharing of knowledge is encouraged within the organisation	1	2	3	4	5
9	Trust and openness permeates within the organisation	1	2	3	4	5
10	Customer value creation is regarded as a core objective of knowledge management	1	2	3	4	5

Factors Influencing Continuous Improvement

Table AVIII Factor 1: knowledge creation (number of items = 5)

1	In my department, there is an increase in number of knowledge workers compared to the previous year	1	2	3	4	5

2	In my department, there is an increase in number of individual gaining new skills compared to the previous year	1	2	3	4	5
3	In my department, there is an increase in the percentage of total budget devoted to technology and information processing	1	2	3	4	5
4	In my department, there is an increase in implemented suggestions.	1	2	3	4	5
5	In my department, CSI has improved compared to the previous year.	1	2	3	4	5

Section B: Background Information

1. What is your current Designation/Position?

2. How long have you worked in the position in (2) above?_____

3. How long have you worked at the organization? _____

4. What is your highest academic qualification?

   - PHD   ☐
   - MASTERS   ☐
   - BACHELORS   ☐
   - OTHERS   ☐

5. What is your area (s) of specialization in the (5) above?_____

Thank you for your kindness and patience!