

Roots of Organizational Knowledge in Classical Management Theories: A Literature Review

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Abstract

Knowledge Management (KM) has received a good deal of interest from scholars in the educational and practitioner arena. The majority of their research focuses on topics such as knowledge typology, knowledge transfer and creation, and knowledge storage and retrieval. There are nonetheless many other essential issues surrounding (KM) that need to shed light on. One very important issue that is still ignored is the roots of organizational knowledge (OK) in classical management theories (CMT). Management is the heart of any organization, therefore it is critical for managers to know about management theories for leadership and management success. The traditional theories are the backbone of all theories of management. Knowledge is the organization's most important strategic resource that can provide organizations with a sustainable competitive advantage. The purpose of this paper is to theatrically address (OK) and intercept its main roots in (CMT). According to the awareness, there are only a few studies handled this issue and here lies the importance of this paper.

Keywords: Knowledge, Organizational knowledge, Classical management theories, Scientific Management, Administrative Management, Bureaucratic Management

1. Introduction

Despite of the fact that Knowledge is directly connected with organizational activities and is a crucial determinant factor affecting an organization's ability to remain effective competitor in the market place (Wigg, 1997; Choo, 1998; Bollinger and Smith; 2001; Loebbecke, Van Fenema, and Powell; 2016); however, the issue of how to manage and tie knowledge with the theories of management and organization is new and only recently, scholars have interested in knowledge and how it could be integrated with, or related to, management theories (Schutt;2003;Asllani and Luthans,2012). Surely, there are several reasons behind this ignorance such as that there are some researchers still stuck with the problem of searching for the specific meaning of knowledge in general and organizational knowledge in particular because knowledge for them is mysterious and puzzling. There are also those who think of knowledge as a physical asset and can be measured directly, while it is an intangible asset exists in the minds of people and difficult to measure precisely and the issue of measurement remains one of the enduring challenges in knowledge management (Arisha and Ragab; 2013). On the other side, it is rare to find a study linking organizational knowledge with traditional management theories (Asllani and Luthans, 2012). However, most studies of this kind have been found in the theories of management that followed the classical ones in spite of the reality that classical management theories are the foundation of all theories of management and knowledge management is an essential theme in management theory.

In fact, this situation inspired the current researcher to address organizational knowledge and intercept its main roots in classical management theories by focusing on two dimensions; the first deals with the organizational knowledge, its types and characteristics. The second dimension discusses the origins of organizational knowledge in management theories. The scientific contribution of this paper is exposed by the fact that we are nevertheless far from addressing such vital aspect in most of our writing in spite of the fact that obtaining and transferring and the use of knowledge has always been an essential issue in human affairs and that relationship between knowledge and management theories. The current paper is structured as follows. Section 2 concentrates on organizational knowledge, its concepts, types, and characteristics. Section 3 deals with organizational knowledge in the classical theories of management; the scientific management theory, the bureaucratic management theory, and the bureaucratic management theory. While section 4 presents the conclusion of the main results that this paper reached.

2. Organizational knowledge; Concept, Types, Objective, and Characteristics

2.1. The Concept of Organizational Knowledge

From cave life to the delicate lifetime of the knowledge society, knowledge has always been the prime resource for the advancement of human societies. However, the perception of Knowledge has been actively discussed since ancient times and continues to be the topic of controversy and divergence of views.

Confirms that the difficulty of finding a precise single definition of knowledge universally accepted by everyone. This situation creates a large set of knowledge definitions, each serves a particular category of researchers.

While Plato (369 BC) conceptualizes knowledge as a “justified true beliefs”, others assert that it is a factor of production and is a dynamic human process of identifying, creating, storing, sharing, and using it to enhance performance in organizations (Nonaka and Takeuchi, 1995; Serrat; 2009).

Daniel Bell, the Harvard University Professor of Sociology looks at knowledge in a broader view when he says that knowledge organized facts or ideas that gave us a rational judgment or experimental outcomes that are delivered to others by some communication channels. According to him knowledge consists of new judgments as well as older judgments as exemplified in textbooks, teaching, and learning and collected as a library and archival material.(Bell,1973).

For Davenport and Prusak (1998), knowledge is “a fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories, but also in organizational routines, processes, practices, and norms”.

In an organizational context, knowledge is Know-how; to do something, to determine the most appropriate action. Knowledge then is mainly the collective experience of employees of an organization.

Based on the previous definitions of knowledge and for the purposes of this paper, the definition we adopted here is” information combined with experience, context, interpretation, and reflection. it is a high-value of information that is ready to apply to decisions and actions” (Albert and Bradley,1997).

Thanks to Penrose (1959) and Drucker (1993) for relating knowledge to the twenty-first-century business organizations; Penrose, recognizes the important role of knowledge in business organizations, confirms that acquiring knowledge not only causes the productive opportunity of a firm to change in ways unrelated to changes in the environment, but also contributes to the “uniqueness” of the opportunity of each individual firm (Penrose, 1959).

Drucker (1993) on the other hand, has highly important concepts that have contributed to the evolution of organizational knowledge, especially when presented concepts of “knowledge workers” and “the knowledge society”. He says, there are only knowledgeable people. Information only becomes knowledge in the hands of someone who knows what to do with it.

Today, as a result of the continual pace of change, knowledge and how to manage it within organizations have become a crucial factor in determining the strategic success of organizations. With dynamic changes, employees’ knowledge becomes obsolete, and they need new knowledge to do their jobs and assure the organization’s success. In fact, knowledge has become the key resource of the world economy as it enables an Organization to think in creative methods not necessarily linked to the environment, besides its contribution to creating precious opportunities for the organization. Having discussed the meaning of knowledge and its importance for human beings, we turn now to discuss the meaning of organizational knowledge.

The definition of organizational knowledge is yet another concept that has very little consensus within the literature. Variations include the extent to which the knowledge is spread within the organization, as well as the actual make-up of this knowledge. Hatch (2010) defines it as: "When group knowledge from several subunits or groups is combined and used to create new knowledge, the resulting tacit and explicit knowledge can be called organizational knowledge.

According to Davenport and Prusak (1998), organizational knowledge is the accumulated knowledge of the organization’s members that can be used by them to carry out their jobs by enacting groups of instructions whose application rely on the historically evolved collective.Organizational knowledge is the certain data of the company, coming either from its organization “collective” participation or from the individual practice and experience of its people. In a tacit or explicit way, this knowledge is or can be, applied to achieve the organizational goals.

Understandings organizational knowledge is determined by all means used by the organization to discover the series actually can and behavior and mental processes arrive in the minds of managers and other employees in the organization to recognize and learn the thinking and causing and contributing to configure views and trends and projections, create a vision of the organization and the type of environment that enhanced strategic choice for survival. (Salem 2003). Whether knowledge is just information or experience or potential or value or resource from the resources of the Organization, they all can't overlook the importance in the functioning of the organization.

2.2 Types of organizational Knowledge

Scholars such as (Levitt and March, 1996; Spender, 1996; Huber, 1992) have contended that organizational knowledge is embodied primarily in routines knowledge. Later, Evance and Smith (2000), classify organizational knowledge into three types; systematic, social-political, and strategic knowledge. The current researcher (2012), identified four distinct types of organizational knowledge; managerial knowledge, technical knowledge, human knowledge and strategic knowledge. These types are:

2.2.1 Managerial Knowledge

It is reflected in a person's ability to analyze and diagnose complex situations and familiarity with the basic managerial functions components; decisions making, planning, organizing, directing, and controlling and the importance given to each of these functions.

2.2.2 Technical Knowledge

It is the practical experience and expertise that can be relied upon to perform tasks or is the result of the technical information for the individual and the community and through the ability to acquire, absorb and contribute to solve problems and improve performance (Mustafa, 14, 1998). It is how individual knowledge descriptors technical aspects of the work and its application in action.

2.2.3 Human Knowledge

The knowledge associated with how to deal humanely with others, and understanding, motivating, and leading them to improve their performance on the individual and collective levels.

2.2.4 Strategic knowledge

It is the knowledge that connects the organization to its external environment (the various economic, social and technological aspects.) and concentrated on such things as strategic plans, the mission, vision and long term objectives of the organization. As well as annual reports and human capital as a strategic resource, besides other things, such as the history of the organization, its competitive position.

2.3 Salient Features of Organizational Knowledge

Organizational knowledge is a humanitarian effort adapted by organizations because they believe it has value far outweighs the nukes of the corporeal. Cognitive application process constitutes the necessary task and process the primary goal of the organizational knowledge management because this application allows for workers and a cognitive process. The cumulative learning and generating new knowledge and organizational knowledge also feature something intangible is not waste personnel wide use and possession by competitors or buyers, but self-generated when every sale or consult or Exchange. Organizational knowledge can accumulate and passed from one generation to another administrator, allowing for the Organization evolution through time. And the basis of organizational knowledge is an individual so we find uncensored depletion rest individuals and the rest of the organization is active in the business world. Organizational knowledge can be stored in multiple forms and methods.

3. Organizational Knowledge in Classical Management Theories

Administrative thought witnessed radical developments over the past hundred years, varied with different scholars' perceptions of the organizational knowledge components. Among the reasons of these variations are the difficulty of defining the knowledge, the complexity of things associated with, and the divergent opinions of how to handle knowledge. The query of how the management theories evolved over the past decades shows that their growth and prosperity was not far from knowledge, but rather they developed a dimension complements the other dimension of cognitive attention (Schutt:2003).

On the following pages we will discuss the theme of organizational knowledge within the traditional perspective of management theories. Management is the most important element of any organization and organizations cannot attain success and maintain it on the long run, without proper management

(Nadrifar, Bandani and Shahryari: 2016). We believe that the key to successful management relies on how managers can improve an in-depth knowledge of past and present theories of management and processes in order to manage effectively and intelligently (Pindur, Rogers and Kim;1995).

3.1 Organizational Knowledge in Classical Management Theories

In the first half of the last century appeared three administrative theories, labeled as the classical approach for managing organizations. These theories are: the Scientific Management Theory (SMT) developed mainly by Fredrick Winslow Taylor (1856-1915), the Administrative Management Theory (AMT) developed by the engineer Henri Fayol (1841 - 1925) and, The Bureaucratic Management Theory (BMT), developed by scientist Max Weber (1864-1920).

These theories arose between 1885 -1940 in an effort to provide a systematic foundation and rationality for the management of organizations. These classical theories have two fundamental thrusts –scientific management and general administrative management. Scientific management, as we will see hereafter, focuses on how to increase worker productivity. Administrative management theory on the other hand, examines organizations as total entities and focuses on ways to make them extra powerful and efficient (Pindur, Rogers and Kim; 1995).

3.1.1 The Scientific Management theory

A well-recognized theory of management, developed by Frederick Winslow Taylor (1856-1915). It is also referred to as time and motion study. Taylor research was the greatest event of the nineteenth century (Grey, 2005). According to him, the scientific management is the solution of the labor troubles. About the Scientific Management Theory, he says in his book “Principles of Scientific Management” “A determinant effort in some way to change the system of management, so that the interests of the workmen and the management should become the same” (Taylor, 1911, pp. 52).

Within the framework of organizational knowledge, Taylor and his contemporaries were the first to use knowledge to productivity and work processes. Before, for hundreds of years, “people had only used knowledge to improve tools, rather than to the general productivity of a work process” (Schutt; 2003). In fact, Taylor, who conducted his studies and experiments at steel companies with manual workers, provided five basic principles and complied both management and workers to follow them accurately: First, individual judgments of the worker should be replaced by science. Second, Workers should be selected with appropriate abilities for each job. Third, workers should be trained in standard method. Fourth, provided wage incentives to workers for increased output, and fifth, the cordial cooperation between management and workers is essential so that together they do the job in accordance with the scientific methods which have been developed, as opposed to leaving the answer or solution of each problem in the hands of each worker.

To apply these principles, Taylor and his colloquies defined a list of elements such as Time and motion studies, functional supervisor, work standardization, a planning unit, the “exception principle” in management, instruction cards for the worker, and the task idea in management, accompanied by an attractive reward for the successful performance of the task, a routing system, and so on (Schutt; 2003).

Taylor believed in the possibility of developing scientific knowledge management (SKM) by leveraging engineering concepts and objectivity in determining the relationships between work units, and rationality in resolving management problems. In fact, he sees the application of scientific management is the solution to the labor problem. As a result of his intensive experiments applications of the scientific elements, the shovelers’ productivity raised from 16 to 59 tons per day, and at the same time, the supervision cost of yard laborers reduced substantially. Of course, there were so many criticisms about scientific management theory and certainly, some ideas were too simplistic. E.g., money is the only motivator for individuals to work. But overall, this theory was, is totally successful, and as a result of its implication in the industrialized countries, productivity grew around 3.5 percent yearly (Drucker; 1993).

Depending on the above thoughts, the organizational knowledge that Taylor asserted on its availability to improve work productivity, was the explicit knowledge. This could be explained on two levels; management and workers. Management should gather scientific information on how to re-engineer the work unit process and formulate standardization of procedures to effectively implement the one best method of work. In addition, management should maintain formal communication channels with the workers. Workers, on the other hand, have to develop their technical knowledge by the training programs offered by management for better performing their tasks. Also by precisely following supervisors’ directions.

3.1.2 The Administrative Management Theory

While Taylor’s theory concentrated on workers as individuals and their tasks and productivity, the administrative management theory (AMT) dealt with how management can managing organization as a total entity, and what principles it should create to increase organizational performance. Certainly, (AMT) was an endeavor to develop a much broader theory concerned with administrative management functions and is considered the forerunner of the modern organization theory (Pindur, Rogers, and Kim; 1995). Around the turn of the century, Henri Fayol (1841-1915) played an important role in the field of management from 1888 until the time of his death in 1915. According to this versed executive, the basic functions of any manager should incorporate planning, organizing, directing, coordinating and controlling (Daft; 2012). In addition, all managers should understand and implement fourteen principles of management to increase organizational performance. A careful analysis of his book; “General and Industrial Management”, explains how much he concentrated on the significance of management and knowledge via the five functions of management. Fayol synthesized fourteen principles of management that are based on vital truth and serve as a guideline for decision making and management activity. Most of these principles become part of managerial know-how many regarded as fundamental tents (Rahman; 2012).

Among these principles are; division of labor, unity of command, discipline, unity of direction, authority, centralization, scalar chain, remuneration , order, equity, stability of tenure of personnel, and Esprit de corps.

As a matter of fact, the formulation of these principles may be looked at as the first endeavor aimed at establishing the general principles of management knowledge, which were adopted by most of the researchers of management in developing the general management process. Fayol has been viewed by countless as the father of the modern operational management theory, and his thoughts have become a fundamental part of advanced administrative concepts. He clearly delineated the difference between technical and managerial skills and noted that the supervisor must be proficient in both to be successful.

3.1.3 The Bureaucratic Management Theory

Max Weber (1864-1925) sees that organization out to adopt formal coding knowledge, and at the same time, strongly embraced by workers to confirm the effective functioning of the organizations. In reality, Weber has discussed organizational knowledge before the work of Polany (1962). Weber developed his Ideal Model of Bureaucracy that characterized by division of work on a legal ground, the hierarchy of formal authority-based, and the dominating of impersonality relationships.

It is understood that Weber focused on knowledge management and how to use it in large organizations, calling at the same time, for the requirement to formally documented, and kept in a safe place for future reference once needed. Insisting at the same time on employees to use this coded knowledge in different jobs so as to attain the most efficiency for organizations. Asserting at the same time the need for personnel to adhere to the literal application of this knowledge so as to attain maximum efficiency for organizations.

Here we could say that Weber stimulated organizations to craft its own organizational memory for the storage of the accumulated knowledge on the hope that management can retrieve it once needed. The following Figure shows summary of the major contributions of these three theories in organizational knowledge.

Figure 1 Summary of the major contributions of Traditional Management theories in Organizational Knowledge

Traditional Management Theories	Focusing on	Elements of Organizational Knowledge
Scientific Management Taylor. F.(1856-1915)	Industrial organization; - Worker efficiency -Time & motion study -Organizational productivity	Tacit Knowledge; - Science replaces personal judgments - Leveraging worker technical skills through training.
Administrative Management Fayol .H.(1841-1925)	Whole Organization -Organizational efficiency - Managerial skills - Technical skills	Tacit Knowledge - Functions of management; Planning, Organizing, Directing, Controlling and Coordination. - General principles of management (First endeavor toward establishing the general principles of management knowledge).
Bureaucratic Management Weber .M.(1864-1920)	Large organizations(Authority & Hierarchy) - Employee efficiency -Ideal type of organization - Management skills - Organizational success	Tacit knowledge(coded knowledge) - Organizational rationality - Hierarchy - Organizational knowledge - Organizational memory

As we noted from the above discussion, these three theories have concentrated directly on developing of explicit managerial knowledge via its focusing on management objectives, shaping organizational relationships, and establishing some management principles to achieve organizational goals through rational mentality (Argote,2005).

They also stressed the significance of Technical knowledge, administrative knowledge and how to effectively implement different works by using the Time and Motion studies. In fact, this result has always overlooked by the majority of management knowledge studies which affirmed that the behavioral management theories “but not the classical theories”, are the original place of the birth of organizational knowledge. We believe that adopting this stance has lessened, deliberately or unintentionally, the genuine contribution of traditional management theories in the field of knowledge management on both the theoretical level was the milestone contribution of Max Weber is quite evident, and on the practical level which was clearly embedded in the recognized contributions of Fredrick Tylor and Henry Fayol.

4. Conclusion

Management is the heart of any organization and organization cannot succeed on the long run without proper management. Therefore it is essential for managers to be aware of management theories for leadership and success. Mistaken who thinks that attention to knowledge is something new in management and linked to the emergence of knowledge management. Careful examination of different classical management theories, reflects a close connection between knowledge and management to a degree that is difficult to talk about one without the alternative? This paper is a thrilling one, as many researchers have left out this association in their writings. So, the focal point of this study has confirmed this relationship throughout all classical management theories that we set at the beginning of this paper. It additionally attempted to reveal the motives that made management researchers, not on time in addressing directly the issue of knowledge. Through this paper, we hope to stimulate and attract the attention of researchers on the importance of writing on the subject of organizational knowledge specifically when we realize that knowledge is no longer an end in itself, but a means to attain particular organizational goals and as a fundamental choice that cannot be unnoticed in today's world.

5. References

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