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Management

THE ROLES OF KNOWLEDGE MANAGEMENT IN PROJECT MANAGEMENT TOWARDS ORGANIZATIONAL PERFORMANCE.

Adnan Ali Alghail	Faculty of Industrial Management Universiti Malaysia Pahang
Liu Yao	Faculty of Industrial Management Universiti Malaysia Pahang
Cheng Jack Kie	Faculty of Industrial Management Universiti Malaysia Pahang

ABSTRACT This paper reveals the roles of Knowledge Management (KM) and its importance in Project Management (PM) for gaining and achieving a high organizational performance, thus, this paper aims to explain the theoretical concepts of KM and PM and the significance of KM in PM practices in the organizations environment and to identify the roles of KM toward PM. The fulfilment and usage of KM is essential for modern organizations that are looking to serve their stakeholders, increase business performance, strengthen competitiveness, and achieve a high reputation in global competitions. Therefore, it is pivotal for such existing organizations to explore and identify their KM roles and establish a KM contribution closely with their PM practices for the sake to have a recognized business functionality and advanced degree of organizational performance. It argues that identifying KM roles in PM has the potential to enhance the organizational performance and achieve strategic goals in ongoing project activities.

KEYWORDS : Knowledge Management (KM), Project Management (PM), Organizational Performance (OP).

I. INTRODUCTION

Knowledge Management (KM) as a discipline has been a focal point of discussion over the past decades. In recent years, the importance of KM has been widely recognized as the foundations of industrialized economies shifted from natural resources to intellectual assets, [25]. KM has been recognized as a critical factor for both organizational performance and project success [16] & [17]. Due to more demand and the importance of Project Management (PM) and its practices, numbers of PM methodologies and standards have been developed by practitioners and academics since late 1990 to assist organizations to improve their project performance, [28] and [13]. In fact, PM is a critical practice in the globalization movement that has transformed world economy in the past ten years from insufficient practices to recognized and well-managed practices. Based on Kliem, [14], KM makes an excellent candidate for project management ,where it has a significant role for improving the rate of project success through both creating and capturing the appropriate knowledge for the PM practices and, then, facilitating and applying this knowledge within those practices by project team members in the organizations.

However, there is a significant gap in the existing literature to address the core role of knowledge management to the project management and to its practices, [4]. In other words, the existing conducted researches are not only having any categorization to identify the importance of KM from PM point of view nor addressing why PM needs KM in the organizations for improving their projects. According to Sin, [6], KM has a significant influence on the success or failure of an enterprise; thus, this paper intended to find out what are KM roles that may lead to success or failure of projects.

During the last twenty years, numerous publications dealing with knowledge management related issues have been published in journals regarding knowledge, knowledge management and its processes, but there was no absolute and clear definition of the KM in PM. This paper presents the definitions of KM, PM and Organizational Performance; and as well identifies the main roles of KM to PM, which will be the main reason for gaining and achieving the organizational performance. Researchers believe that figuring out appropriate KM roles; will significantly contribute to enhance the project management practices and improvement of organizational competencies. There are four sections in this paper starting with KM, PM and Organizational Performance, followed by identifying the KM roles that has impact on PM for increasing the Organizational Performance.

II. LITERATURE REVIEW

A. Knowledge Management (KM)

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, [32]. King [32], has defined knowledge as a "justified personal belief." According to Omotayo, [25] Knowledge is the insights, understandings, and practical know-how that people possess; there are many taxonomies that specify various kinds of knowledge. Over the centuries, many attempts have been made to classify knowledge, and different fields have focused on different dimensions. Understanding the different forms that knowledge can exist in, and thereby being able to distinguish between various types of knowledge, is an essential step for knowledge management (KM). Forst & Ueda, [1] for instance stated that, it should be evident that the knowledge captured in a document would need to be managed (i.e. stored, retrieved, shared, changed, etc.) in a very different way than that gathered over the years by an expert craftsman. Nowadays, Organizations strive their power managing the knowledge involved in the project management activities, and there are two major types of knowledge.

Tacit knowledge: It tends to reside within the heads of people, who have the knowledge and it is difficult to articulate and difficult to put into words, text, or drawings, [9] being the most valuable source of knowledge, and the most likely to lead to breakthroughs in the organization. It includes cultural beliefs, values, attitudes, mental models as well as skills, capabilities and expertise. Goffin, [8] has recommended that, an appropriate utilization of tacit knowledge is the key for project success.

Explicit knowledge: It represents content that has been captured in some tangible form such as words, audio recordings, or images, [25]. This is the type of knowledge most easily handled by knowledge management system as it formed in databases, memos, notes, documents, it usually contained within tangible or concrete media. The table below shows the difference between these types.

Magnier-Watanabe & Senoo, [21] have defined Knowledge Management as the process for acquiring, storing, diffusing and implementing both tacit and explicit knowledge inside and outside the organization's boundaries with the purpose of achieving corporate objectives in the most efficient manner. While, Omar, [24] defined KM as a systematic process of managing knowledge mainly from searching, creating, organizing, sharing, facilitating and evaluating aspects by utilizing technologies to help in decision

making of sustaining competitive advantage. Knowledge management could be defined as a process that transforms individual knowledge into organizational knowledge, [30].

According to Love, [20], KM has a strong influence on the efficiency of PM, in which poor utilization of KM practices not only negatively affects project success, but also causes some inefficiency such as overrun cost. Robert, [31] stated that, KM has been presented as a practice that makes sense for improving PM Therefore; management of knowledge, whether explicit or tacit, is a necessity for a project success in today's changing environment, [27]. Therefore, KM is viewed as the way to enhance productivity and increase profitability if knowledge assets are used effectively in each organization, [18].

Table 1 : Tacit and Explicit knowledge.

Tacit knowledge	Explicit knowledge
• Ability to adapt, to deal with new and exceptional situations. • Expertise, know-how, know-why, and care-why. • Ability to collaborate, to share a vision, to transmit a culture. • Coaching and mentoring to transfer experiential knowledge on a one-to-one, face-to-face basis.	• Ability to disseminate, to reproduce, to access and re-apply throughout the organization. • Ability to teach, to train. • Ability to organize, to systematize, to translate a vision into a mission statement, into operational guidelines • Transfer knowledge via products, services, and documented processes.

B. Project Management (PM)
In rapidly changing environment project, management has become an essential survival requirement for most organizations today. [10], Project management approach is a well-developed system that can enable organizations to meet their goals in a timely fashion. Lock, [19] in his book stated that Project Management (PM) is used to predict as many dangers and problems as possible and to plan, organize and control activities so that projects are completed successfully in spite of all risks that may come up during the project life cycle.

The Project Management Institute, [28] defined the PM as "the application of knowledge, skills, tools, and techniques to project activities to meet the project requirement". Another definition for PM by Office of Government Commerce [22], from United Kingdom is "the planning, delegating, monitoring and control of all aspects of the project, and the motivation of 10 those involved, to achieve the project objectives within the expected performance targets for time, cost, quality, scope, benefits and risks". While the Project Management Association of Japan, PMAJ, [26] defined the project management as "the professional capability to deliver, with due diligence, a project product that fulfills a given mission, by organizing a dedicated project team, effectively combining the most appropriate technical and managerial methods and techniques and devising the most efficient and effective work breakdown and implementation routes".

If we have a close look on the three mentioned definitions above of project management, we do find many similarities and they go together on major role of knowledge management into project management. In general, PM helps people involved in the projects, as it provides them with step-by-step activities, inputs, outputs and tools that can be used at each of project phases.

One of the main essentials and principles that PM deals with during the project activities is application of knowledge, applying this knowledge within the organization environment is a critical consideration and much more efficient having the right knowledge that can be used on the right time in order to facilitate and support the project success. Knowledge is being created, converted and used throughout the project management process and in all phases of the project life cycle, [10]. As a result, project management has become an essential part of the organizations priority to manage and run their projects.

Table 2 : Similarity of PM definitions.

PM Definitions	Similarity
The Project Management Institute	• Using all aspect of project, which can be identified as the knowledge, tools and techniques.
Office of Government Commerce	• Process or capability of planning, monitoring project activities to complete the mission and deliver the project/product/service.
Project Management Association of Japan	• Technique and knowledge required for PM processes. • Excepted deliverables as output result of PM.

C. Organizational Performance (OP)
In rapidly changing environment project, management has become an essential survival requirement for most organizations today. Most studies of organizational performance define the performance in the organizations as a dependent variable and seek to identify variables that produce variations in performance [11]. All organizations want to be successful, even in current environment, which is highly competitive. Therefore, they strive to achieve their goals and objectives, organizations always develop strategies to compete in highly competitive markets and to increase their performance, [6]. Nevertheless, just a few organizations consider the PM practices as being their main way of project methodology and project development, capable of leading them to success or if not managed and controlled properly, to failure. If the PM is not linked with KM to fulfill the project tasks and achieve goals, the organization cannot attain success and would get a law organizational performance degree.

The research showed that KM roles and its practices were directly connected and had a positive influence on organizational performance, which in turn had a direct relationship with financial performance, [3]. Therefore, organizations strive to retain the knowledge within their vicinity, acknowledging their expertise as an important role in creating and acquiring the knowledge for the PM activities. Rasula, [30] believes that one of the key benefits of introducing KM practices in organizations is its positive impact on organizational performance.

II. ROLES OF KM IN PM
Managing knowledge in projects is getting more and more importance due to the advances in information and communication technologies and the need to deal with information overload, [14]. Managing knowledge in projects is gaining more and more importance due to the advances in information and communication technologies and the need to deal with information overload, [12]. Thus, Organization need to learn how to manage their knowledge that they are accumulated and acquired from projects more effectively and using of best practices from lesson learned from these projects. Ginger, [18] stated that, KM can enhance overall PM success in terms of fulfilling the client, the performing organization, and team goals. Oluikpe, [23] revealed in their conducted case studies that organizations acknowledge the roles of KM in project success.

KM allows the capture and deployment of a company's collective experience located anywhere in the business, for instance on hardcopy documents or in databases (explicit knowledge) and knowledge contained in people's minds (tacit knowledge), [5]. In PM, the most profound aspect of KM is that, ultimately, an organization's only sustainable competitive advantage lies in what its employees know and how they apply that knowledge to projects [30], the addition of KM repositories to PM enhances an organization's ability to.

- Think in broad terms.
- Capture issues for study and/or observation.
- Take independent remedies and address issues in an interdependent fashion.
- Catch issues that have traditionally "slipped through the cracks."

Every project in the organization creates knowledge and for same time each project depends on knowledge to be created from. Knowledge management allows project team members to leverage rivers of organizational knowledge to support project objectives and activities. One of the main roles of KM in PM is organizing the knowledge, which is being collected, analyzed and organized from individuals within an organization during each project activity and task in the PM processes. Knowledge is started to be organized in PM for the shared knowledge (conceptual, historical, methodological and know that.). Organizing and managing knowledge is significant because knowledge is a strategic weapon that can lead to sustained increase in profits, [29]

Second role is facilitating knowledge, once the knowledge is being organized and well maintained, there must be a facilitating role which establishes a connection between individuals in the organization in order to create, convert and share knowledge as much as everyone has the benefit and ensuring to use and apply this knowledge for improving the PM practices, Knowledge has to be available and accessible by the project team members whenever it is needed during the project management processes. Ginger, [18] has supported this role by stating that, the facilitating of knowledge assets that are readily and easily available can only lead to improved PM effectiveness and efficiency. So having the knowledge on time can increase the team performance and achieve the targeted goal or project objectives.

Last role of KM in PM is protecting of the knowledge; Knowledge here must be protected and controlled, it sets the direction and climate for a protected knowledge sharing in the organization community and ensures that the organization and the project team members are all benefiting from the exchange with a secured and protected environment. In some cases; projects could depend on the existing organizational knowledge, so it is important to validate and assess that knowledge in order to check how efficient and updated it is to the project activities and how secured is this knowledge, which will be using during the project management processes, [2].

To effectively apply these roles, it is important for organizations to realize that KM will not happen without sufficient technological resources, [30]. Such resources should be dedicated to the task of making knowledge sharing possible within the organization environment. Organizations have to give a full solicitude to these KM roles, in order to retain their project management success and increasing their organizational performance. As a result, project management (PM) and knowledge management (KM) are both a necessity to lead to an improved competitive advantage for each organization, [18].

III. CONCLUSION
This paper has presented some of the theoretical findings on KM, PM, KM capabilities This paper has presented some theoretical findings on KM, PM, Organizational Performance and various aspects of KM roles in project management. From the paper, it be concluded that KM and its roles are influencing the success of project management and the degree of organizational performance. The environment and the enthusiasm of that organization encourage, determine and share the knowledge. As knowledge comes from different phases and sources during the project management activities, it is very important to monitor the two types of knowledge (Tacit and Explicit) to ensure it has recorded and transferred to all of the interested parties involved in the project. Having control on the KM and identifying its roles helps with a positive impact on project management, which will lead to improve organizational performance and increase its

competitiveness. For gaining, a successful project management practices, the organizations must support and utilize the KM roles and provide incentives for the expertise that is the main source of knowledge, in order to widely encourage knowledge sharing and usages as well.

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