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ABSTRACT

Many research studies have discussed critical factors which can affect project success or failure. In this paper, an examination of a limited number of these studies is conducted to emphasize the need to understand a foundational perspective of the human element influencing these factors. The result is the classification of three core competency areas which can lead toward more effective project management initiatives. An outline of these core competencies is provided based on the identification of key themes focusing on project critical success factors. Initial findings of the study are discussed and a foundation for future research agendas is provided.

Keywords

Project management, business processes, competencies

INTRODUCTION

The concept of project management (PM) has been developed within organizations for decades and at its core, it can be viewed as the methods and techniques utilized to manage projects within organizations. PM is not confined to the area of information systems and technology alone, but instead, is seen as methods impacting multi-disciplines and organizations. Given the widespread nature of PM across the disciplines, it can be argued research studies require more than an exploration into the various methods of handling projects, but need to provide a more in-depth perspective regarding the human element and connection to overall requirements of projects.

At the core of any project are the business processes influencing operational tasks handled by individuals. Business processes are then seen as the driving force behind organizational activities and therefore can be viewed as essential for organizations to grow and meet their objectives. With such an importance placed on business processes, it becomes an expectation to understand how these processes can be improved to influence efficiency and effectiveness.

With a high level of importance placed on the knowledge of individuals and the organization as a whole, enhancing the ability of individuals to handle PM initiatives also becomes important. Many of these initiatives are not only supported by technological mechanisms, but also includes a human element. Both aspects are seen as important factors for PM, but organizations cannot overlook the impact of human resources on its business processes. With a strong emphasis on the need for business process within project management initiatives, it is therefore a desire to strengthen an individual's own competencies to have a positive impact on PM-related processes.

This paper contributes to the previous literature and research by examining the connections between the development of human resources and their impact on project management initiatives. As such, this paper has two main objectives: 1) discuss the core competency requirements for project management, and 2) provide a foundation for additional research agendas regarding project management.

LITERATURE REVIEW

Business process, as itself, is not a new topic for a research agendas, as it has been covered extensively across multi-disciplines. However, it can be agreed a business process can be defined as a collection of related tasks performed in a specific and logical manner in which to achieve an outcome as defined by the organization or entity (Freeze and Robles-Flores, 2005). Further, business processes can demonstrate certain characteristics such as the possibility of being executed multiple times, capable of being used across various contexts, implemented to achieve specific goal, influential on other processes, and capable of being unified with other processes (Davenport and Short, 1990).

Individuals are an essential aspect in the environment of an organization given the role in decision-making and other key components required by the organization (Grant, 2002). As such, these individuals play an important role in the development, design, and execution of the business processes within the organizations. Given this obvious connection, it becomes an important aspect for consideration in regards to enhancing the capability of individuals interacting with business processes. As individuals implement business processes, a certain level of knowledge is required in order to perform the process in accordance with organization policy and procedures. The knowledge required by individuals then becomes a great resource for the organization in many aspects including the maintaining of best practices and organizational culture (Cao et al., 2013). Therefore, organizational expectations for their employees is viewed as having a higher level of requirements in regards to knowledge, experience, and behavior. This increased requirement can therefore be applied to PM initiatives as well.

Over the previous few decades, PM has grown within organizations to the point where it is considered to be crucial and expected part of organizational structures. It is also well known within the literature the successful completion of projects can be impacted by a variety of influences and events. This again, leads toward the argument of examining the influence of the human resource within projects as an influence with specific attention given toward process competencies. Across the literature, knowledge can be viewed as a resource to be created, shared, and utilized in various contexts (Gold et al., 2001; Nonaka and Toyama, 2003). Through the organizational and individual knowledge, the development of competencies through directly support individuals working with these business processes. Thus, there can be a direct correlation between the development of business process competencies of individuals and the influence they have on PM initiatives.

In order to identify the process competencies suggested for PM success, it also important to review other key areas influencing PM success or failure. This provides a foundation for understanding important knowledge considerations leaning toward competency development. Through a focused review of several journal articles, books, and other references associated with PM and its success factors, some key themes were identified as seen in Table 1.

Theme	Definition	Example References
Delivery of product	Formally transfer or presentation of final project artifact to recipient	Hagen and Park, 2013; Munns and Bjeirmi, 1996; Turner, 2004
Early development of strategy and planning	Formulate project goals and objectives to provide direction	Besteiro et al., 2015; Kumar, 1989; Schwalbe, 2013
Project costs	Provide adequate approximation of project costs and meet expectations	Munns and Bjeirmi, 1996; Schwalbe, 2013; Turner, 2004
Post-project evaluation	Implementation of mechanisms to determine project successes and failures	Besteiro et al., 2015; Gido and Clements, 2015
Project communication	Anticipating how information will be communicated to members, addressing authoritative responsibilities, and appropriate channels to be utilized	Besteiro et al., 2015; Bhoola, 2015; Hagen and Park, 2013
Team and organization commitment	Establishing a positive team culture influencing work attitude and dedication	Atkinson, 1999; Besteiro et al., 2015
Team selection	Selection of members demonstrating required level of experience, interest levels, qualifications, and knowledge	Kerzner, 1989
Realistic goal and objectives established	Identification of obtainable objectives based on the understanding of project expectations, deliverables, and criteria	Atkinson, 1999; Besteiro et al., 2015; Bhoola, 2015; Gido and Clements, 2015; Lackman, 1987; Schwalbe, 2013

Table 1. PM success criteria themes

When evaluating completed projects, several areas can be mentioned including unrealistic objectives, customer satisfaction, implementation process, and perceived value of the outcome (Munns and Bjeirmi, 1996). Other factors are also seen as influencing project success or failure such as overall leadership, commitments, planning, decision-making, and critical thing skills (Besteiro et al., 2015).

IDENTIFYING THE COMPETENCIES FOR PROJECT MANAGEMENT

In the context of this paper, the concept of competencies can be defined as an establishment of different types of behavior which can be organized around a specific event or activity (Boyatzis, 2011). As such, these behaviors can be enacted by an individual based on the situational need or desire for a specific outcome. These competencies provide individuals a means in which to judge situations and apply certain behaviors to impact others and perhaps the individual's environment (McClelland and Boyatzis, 1982). Further, competencies can be acquired or altered through direct experiences, simulations, or even direct observations (Lee et al., 2013).

As stated by Gido and Clements (2015), individuals who work in the role of project managers need to develop the necessary skills and gain experience in order to be successful. In a broader sense applied to any member of a project team, there can be key areas which can help projects be successful. First, team members need to gain experiences through participation on previous projects providing an opportunity to work within a team-structured environment but also observe, learn, and gain knowledge (Hwang and Ng, 2013). Second, team members should be encouraged to take the time to conduct self-evaluations designed to provide a chance to learn from the lessons learned and review the process, strengths, and weaknesses noticed during the project duration (Belassi and Tukel, 1996). Through these efforts, an individual can gain a sense of their own performance toward the project goal. Third, individuals should explore opportunities to participate in education and training sessions through industry or organizational events (Besteiro et al., 2015). As with participation on various projects, attending various educational opportunities provides additional knowledge to be used within future projects.

Three main areas of competency requirements were classified incorporating the key themes identified through the literature review of PM success criteria factors. These competency areas, *technical*, *societal*, and *personal* are desired traits (as shown in figure 1) for individuals working with PM initiatives. As training and developmental sessions are offered, each area can also be improved through knowledge. As such, the competencies can be viewed as a continual spiral outward as individuals obtain knowledge and experiences. Thus, it can be argued the competencies can be developed not only separately, but also through their reciprocal relationship.
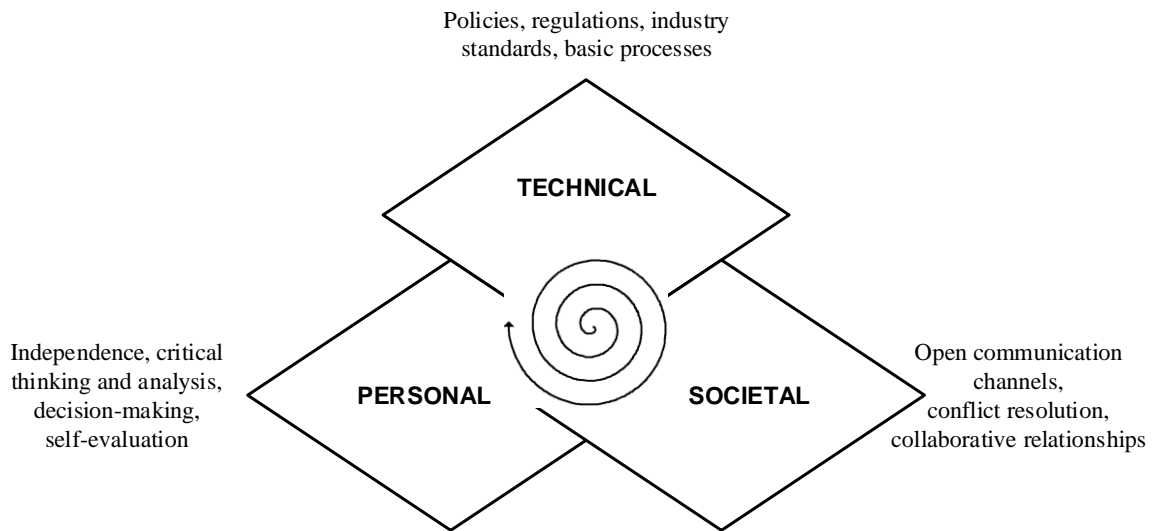

Figure 1. PM core competencies

First, individuals should acquire a technical competency in order to have an understanding of basic operations and processes within the organization, industry standards, and best practices for the given project requirements. Given the complexity of a project, project leaders and team members are often expected to have a high level of knowledge, or expertise, in regards to the specifics of a project (Edum-Fotwe and McCaffer, 2000). This includes not only expertise in project management itself, but also knowledge regarding the organizational policies, regulations, and industry analyses influencing the project. Further,

technical competency can enhance the effectiveness of the team given their understanding of the project's environment and expectations; however, this competency alone does not directly lead toward project success (Bauer et al., 2014). Therefore, even though having technical competency is encouraged, additional competencies are required to further support project initiatives.

Second, a level of societal competency provides understanding in regards to communication expectations between individuals. This level of communication also determines which communication methods and manner is appropriate and recognizes the need for open communication channels and conversation techniques. Further, the development of societal competence provides knowledge of conflict resolution, developing comfort and knowledge of individual perspectives, and encourages collaborative relationships. At the core, effective communication can lead toward a more effectively managed project and team cohesiveness (Creasy and Anantatmula, 2013). Otherwise, project teams run the risk of being less informed and overall challenge in progressing projects toward completion.

Third, individuals should also develop a higher level of personal competence. This category reflects the expectations of individuals developing independence and responsibility behaviors which allow the individual to work autonomously, but also recognizes the importance of team collaboration. As individuals, the ability to ask appropriate questions designed to gain further knowledge, analyze and critical describe lessons learned, along with planning and decision-making tactics, will directly influence how projects are monitored, progressed, and evaluated. These behaviors can often be viewed as essential for project leaders, but is also an important trait for team members given the need to implement specific project activities (Dainty et al., 2005).

Further, with varying levels of PM complexity, given the project objectives, the level of competency requirements can also fluctuate. As the perceived level of PM complexity increases, the level of competency requirements also increases. Thus, project leaders and team members should be expected to demonstrate higher skill levels, experiences, and knowledge in each of the areas. Technical competency alone may not be sufficient; however, an ability for societal and personal competency becomes more essential as PM complexity increases. The rapidly changing business environment indicates the need to expand organizational perspectives on PM influencing these attributes. With a foundational perspective of these competency areas, organizations can introduce training and professional development sessions to provide knowledge to its project team and employees (Hwang and Ng, 2013).

CONCLUSION

Project success or failure can be influenced by a variety of different factors and conditions; however, it has been noted in previous literature the need for individuals to understand basic managerial concepts, maintaining open communication methods, commitment to the project objectives, and other such conditions. The classification of these factors can result in three core competency themes related to the human element of PM. In this paper, an exploration of these competency areas has been initiated. It is acknowledged the study has its limitations based on the focused review of the literature; however, future research agendas can be developed to concentrate on these competencies and their interactions. Through additional research, the impact of these competency areas can be measured within the context of real-life project initiatives. Project management has become an essential aspect for organizations to develop quality products and initiatives. Thus, it becomes clear project leaders and colleagues need a better understanding of the foundation underneath the factors influencing project success.

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