EMPLOYEES MINDFULNESS IMPACT ON PROJECT SUCCESS IN INFORMATION TECHNOLOGY INDUSTRY OF PAKISTAN: EXPLICATING THE SEQUENTIAL MEDIATING MECHANISM AND INTERACTION EFFECTS

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by

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LIST OF ABBREVIATIONS

AVE   Average Variance Extracted

CR   Composite reliability

IS   Information System

IT   Information Technology

IWB   Innovative Work Behavior

PASHA   Pakistan Software House Association

PBOs   Project Based Organizations

PMI   Project Management Institute

CMV   Common Method Variance

PMBOK   Project Management Body of Knowledge

LIST OF APPENDICES

KESAN KESEDARAN KENDIRI PEKERJA TERHADAP KEJAYAAN PROJEK DALAM INDUSTRI TEKNOLOGI MAKLUMAT DI PAKISTAN: PENJELASAN MEKANISME PENGANTARAAN BERJUJUKAN DAN KESAN INTERAKSI

ABSTRAK

Dalam pasaran global semasa dan sangat kompetitif, kejayaan menyiapkan projek adalah keperluan asas setiap organisasi berasaskan projek (PBOs). Malangnya, nisbah kegagalan projek teknologi maklumat (IT) adalah tinggi dan organisasi menghadapi kos kegagalan yang tinggi. Dalam hal ini, pembolehubah utama penyelidik ialah kejayaan projek IT dan penerokaan pelbagai faktor termasuk kepimpinan. Kajian ini menggunakan rangka kerja motivasi proaktif dan mencadangkan bahawa kesedaran kendiri pekerja mempengaruhi kejayaan projek IT secara langsung dan tidak langsung melalui ketahanan psikologi dan tingkah laku kerja yang inovatif. Selanjutnya, hasil kajian juga mengesahkan kepimpinan inklusif bertindak sebagai penyederhanake atas hubungan antara kesedaran kendiri pekerja dan ketahanan psikologi – di mana melalui kepimpinan inklusif yang tinggi dapat menguatkan hubungan keduanya. Model telah diuji dalam organisasi berasaskan projek (PBOs), sektor IT di Pakistan. Reka bentuk selang masa telah digunakan, dan melalui persampelan bertujuan, data dikumpulkan daripada 239 pengurus projek dan pekerja yang bekerja di sektor IT PBO. SPSS dan AMOS digunakan untuk pengujian hipotesis. Penemuan telah menunjukkan bahawa kesedaran kendiri pekerja secara signifikan mempengaruhi kejayaan projek secara langsung dan tidak langsung melalui tingkah laku kerja yang inovatif dan ketahanan psikologi. Selain itu, dapatan juga mengesahkan bahawa kepimpinan inklusif bertindak sebagai moderator dan berinteraksi secara positif dengan kesedaran kendiri dan mempengaruhi ketahanan

psikologi secara signifikan. Projek IT memerlukan perhatian dan inovasi pekerja susulan daripada peningkatan teknikal yang pesat; kajian ini mengesahkan bahawa kesedaran kendiri dan tingkah laku kerja yang inovatif meningkatkan kejayaan projek IT. Kajian semasa menyumbang kepada literatur pengurusan projek dengan memperluaskan implikasi rangka kerja motivasi proaktif dan bagaimana kesedaran, ketabahan psikologi, tingkah laku kerja yang inovatif dan kepimpinan inklusif merupakan faktor penting dan menghasilkan kejayaan projek. Akhir sekali, kajian ini juga menyumbang kepada amalan pengurusan projek - dengan menonjolkan bagaimana kesedaran merupakan faktor penting untuk kejayaan projek dan mencadangkan IT-PBOs untuk memilih individu yang mempunyai kesedaran kendiri yang tinggi semasa pemilihan dan mengatur sesi latihan untuk kesedaran individu di tempat kerja. Kajian ini juga sangat membantu individu yang tidak dapat mengatasi tekanan dan menghadapi persekitaran kerja yang mencabar. Dalam hal ini, kajian mencadangkan supaya IT-PBOs boleh perlu memilih dan mendapatkan pengurus projek yang mempunyai ciri-ciri inklusif kerana pengurus projek yang mempunyai tingkah laku inklusif dan pekerja yang memiliki personaliti kesedaran dapat mengatasi tekanan, menerima cabaran, membuat komitmen dan mengawal situasi.

EMPLOYEES MINDFULNESS IMPACT ON PROJECT SUCCESS IN INFORMATION TECHNOLOGY INDUSTRY OF PAKISTAN: EXPLICATING THE SEQUENTIAL MEDIATING MECHANISM AND INTERACTION EFFECTS

ABSTRACT

In the current globalized and highly competitive market, the successful completion of the project is basic need of every project-based organization Unfortunately, the information technology projects failure ratio is high and organizations facing a huge failure cost. In this regard, the researcher's main variable of interest is IT project success and identified various factors including leadership styles. This study employed proactive motivation framework, and proposed that employees' mindfulness influence IT project success directly and indirectly through innovative work behavior and psychological hardiness. The study also proposed the moderating role of inclusive leadership on the relationship between employees' mindfulness and psychological hardiness – with high inclusive leadership; the relationship will be strengthened. Using time lag design and via purposive sampling data were collected from 239 project managers and employees working in Pakistani IT PBOs. SPSS and AMOS were used for hypotheses testing. The findings of the study show that employees' mindfulness significantly influences project success directly and indirectly via psychological hardiness and innovative work behavior. Moreover, the findings also confirmed that inclusive leadership act as a moderator and strengthen the relationship between employee's mindfulness and psychological hardiness. IT projects require the employees' attention and innovation due to rapid technical improvements; the study confirms that mindfulness and innovative work behavior adds to the IT project's success. The current study contributed to the project

management literature by extending the implications of the proactive motivation framework and how mindfulness, psychological hardiness, innovative work behavior, and inclusive leadership are vital factors and translated into project success. Finally, the study also contributed to the project management practices – by highlighting how mindfulness is a critical factor for the project success and suggested to the IT-PBOs to prefer individuals with high mindfulness during selection and arrange practice sessions for the mindfulness of individuals during the workplace. This study is also helpful for those individuals who cannot cope with stress and face a challenging work environment. In this regard, the study recommended that IT-PBOs can prefer and select the project manager with inclusive characteristics because project managers with inclusive behavior and employee with mindful personality can cope with stress, accept the challenge, make a commitment and control the situations.

CHAPTER 1

INTRODUCTION

1.1   Background of the Study

Project management is becoming the focus of attention for organizations seeking a competitive advantage (Shenhar & Dvir, 2007). According to Turner Huemann, Anbari, and Bredillet (2010), around 40% of the global economy is project-based and uses project management as a vital tool for producing products and services. It is now recognized that business is considerably projected (Lundin, Arvidsson, Brady, Ekstedt & Midler, 2015). The world economy and every industry have the universal presence of project-based work (Schoper, Wald, Fridgeirson & Ingason, 2018). The interest in project management and its demand have been exponentially growing over the past few decades (Geraldi & Soderlund, 2018).

By some accounts, 24% of the world's GDP ($19 trillion) is generated through projects every year (World Bank, 2015) and millions of new project management jobs are expected to be created globally in years to come, which include the development of new products and systems, the delivery of new infrastructure, and the implementation of major change efforts. In the current complex business environment, all industries use project management processes for success (Miterev, Mancini, & Turner, 2017). The Project Management Institute (PMI) defines project management as the "application of knowledge, skills, tools, and techniques to project activities to meet the project requirements" (PMI, 2004, p. 368). Nowadays, organizations are converting into project-based organizations (PBOs) to gain success, and the ultimate objective of the PBOs are project success. Hence, the purposes of these temporary organizations are driven by the motive of success in the project at hand.

Project Success defines by PMI as balancing the challenging demands of project scope, cost, quality, and time - as well as addressing the increasing project stakeholder needs and desires (PMI, 2008, p. 9). Historically, recognizing the criteria for project success has developed from the simplistic triple constraint concept known as the iron triangle to something that incorporates many additional criteria for success, such as efficiency, stakeholder satisfaction, and information management (Shenhar & Dvir, 2007). The success of project management heavily relies upon the usage of the time limit, budget, and capability to handle it. The project is considered fruitful if performed according to what it needs to be successful (Avots, 1969; Atkinson, 1999). Project success is the most interesting variable of the researchers and identified technical and behavioral factors to improve project success, and these factors are known as critical success factors (Ika, Diallo & Thuillier, 2012; Alias, Zawawi, Yusof, & Aris, 2014; Mughal, Bahaudin & Salleh, 2019). These factors include technical aspects of the project and behavioral factors of the project managers and employees.

Among the behavioral critical success factors, the role of leadership behavior is one of the most evident factors leading to enhance the project success (Imran, Nawaz, Siddiqui, & Kashif, 2019; Maqbool, Sudong, Manzoor & Rashid, 2017; Raziq, Borini, Malik, Ahmad & Shabaz, 2018). In line with the importance of leadership for PBOs, research scholars in the project management domain started to focus on the impact of the project manager's leadership style, personality and also on employees' personality and its compatibility with project success (Cleveland & Cleveland, 2020; Harwardt, 2020; Aga, Noorderhaven, & Vallejo, 2016; Hassan, Bashir & Abbas, 2017; Dwivedula, Bredillet & Müller, 2016; Witt, Baker, Ashle & Winniford, 2017).

The current study extends the literature and focuses on employees' personality traits, i.e., mindfulness, which is related to consciousness (Brown & Rayan, 2003;

Giluk, 2009). The mindfulness concept is derived from Buddhist psychology (Brown, Ryan & Creswell, 2007). It is the practice of bringing attention to the present moment and increasing the quality of consciousness and awareness. Through mindfulness, the individual scans the inner and outer environment; it is their attention that decides what to focus on. The focus of attention can include just one specific area, or it can move to the broader environment (Brown et al., 2003).

Mindfulness is of two main aspects that can lower the negative psychological reactions of one's own stimuli from moment to moment and non-judgmental evaluation of stimuli because mindfulness can help individuals to detach from habitual thoughts and behaviors, it allows the individuals to develop more openness to new experiences (Chong, Kim, Lee, Johnson & Lin, 2019). According to mindfulness theory, mindfulness enhances cognitive (e.g., improving working memory and cognitive flexibility), psychological (e.g., more neutral emotional appraisals and reduced negative emotional reactivity), and physiological resources (e.g., reducing stress reactions) (Good et al., 2016). As suggested by the "can do" motivational mechanism (Parker et al., 2010), the model of proactive motivation demonstrated that people with full attention (Mindfulness) tend to believe they are capable of pursuing and achieving personal and organizational goals.

The current study was built in the light of the proactive motivation framework, which stated that the personal factors (e.g., employee's mindfulness) activate the motivational states of the employees, and these states are "can do" "reasons to do" and "energize to do" (Parker, Bindl & Strauss, 2010). Interestingly, these three motivational states are found in psychological hardiness, which are "commitment, control and challenge" (Kobasa 1979). The psychological hardiness concept was introduced by Kobasa (1979), and she noted that a few people could accomplish their

own latent capacity in spite of being exposed to numerous frustrations and stresses. Psychological hardiness is the willingness to pursue stressors and transform them into working for you instead of against you (Kobasa, 1979). Hardiness considers one's own personal control, commitment, and challenges that may influence both positive appraisal and actions taken in response to the stressful event (Kobasa, 1979). Individuals high with psychological hardiness tend to face life events rather than adopt backward coping strategies such as avoidance and denial.

Due to globalization and disruptive technology in the current competitive market, the survival of an IT organization is based on proactive strategies first to market and on quick response (Nesterkin, 2013; Paulsen, Callan, Ayoko & Saunders, 2013). It is a challenge for organizations to face complex changes in a competitive market (Fraj, Matute & Melero, 2015). Accordingly, researchers and practitioners are increasingly interested in understanding employee IWB. The IWB is defined as employees' intentional efforts to generate, promote, and realize innovative ideas to benefit work performance, the group, or the organization (Janssen, 2000; West & Farr, 1990). The sustainability of any PBO in the current competitive environment depends upon its ability to innovate (Eslami, & Nakhaie, 2011). The uncertainty of the business environment urges organizations to search for innovative ways of working (Gumusluoglu & Ilsev, 2009). Innovation is a function of imagination, and employees become an essential source of it. The employees' innovative behavior is the most crucial factor in the current competitive situation. Therefore, the focus and need of the PBOs are 'how to bring innovation' to their projects.

The proactive motivation framework also mentioned that the dispositional and contextual factors interactively activate the motivational states. So, in the current study, inclusive leadership is proposed as a contextual factor to interact with

dispositional factors, i.e., employee mindfulness may positively influence the psychological hardiness. The inclusive leadership idea was introduced by Nembhard and Edmonson (2006), and they are of the view that inclusive leadership forms a state where the individual can understand the position of the status or control space which gives importance to the others' opinions, similarly "voices are genuinely valued" (p. 948). The inclusiveness of the leader allows capturing the attempts by the leader for including others in the discussion and deciding that where their suggestion and voices are present in the project or not (Nembhard & Edmondson, 2006).

An inclusive leader promotes a supportive atmosphere in the workplace to deal with fairness with all his employees (Hollander, 2009). An inclusive leader considers the respect for employees, recognizing them for their support, and responding to them while dealing with any crises and inequities. The responsibility and the enduring nature of a leader allow a better relationship between leader and followers that allows increasing the legitimacy and approval (Hollander, 2012). So far, the researchers have worked on the different critical success factors to improve project success in different industries. Nevertheless, in this thesis, the main focus is only on the IT industry and how the above-stated factors contribute to the IT industry of Pakistan.

1.2   Background of the IT Industry of Pakistan

Organizations are shifting towards projects from their conventional operational style. In the period 2000-to 2008 government of Pakistan developed a free zone that accelerated the number of PBOs. During this period, a high rise was reported in the number of IT-based organizations working on different projects. As a result, the GDP development of Pakistan is improved (Haque & Yamoah, 2014). According to the economic survey of Pakistan (2019), Pakistan's IT exports are estimated to have

crossed the US $ 3.3 billion a year at present. Besides, export remittances earned by Micro Small and Medium Enterprises (MSMEs) and freelancers are estimated to be $500 million, whereas annual domestic revenue exceeds $1 billion. Pakistan's IT industry has a promising future, brimming with talent and the potential to become the largest export industry in the country.

Already, the IT industry is among the top five net exporters of the country, with the highest net exports in the services industries. Pakistan is the world's most financially desirable destination for offshore services; as per A.T. Kearney's Global Services Location Index (2019), around 300 worldwide firms, including global corporations, are working in the Pakistani Market. The reported foreign direct investment inflow in the IT industry from July 2018- to January 2019 is USD 114.4 million. Currently in Pakistan over 7000 IT based organization are working and the highest number of PBOs is in Karachi because it is an industrial hub of Pakistan [Pakistan Software House Association (PASHA), 2019)]. Especially the IT software houses working on Software Development, Website Development, Mobile Application development, Game development, Billing, Technical Support, Telemarketing, Consulting, Medical Transcription, and system integration.

Although Pakistani enterprises have seen substantial development in IT, its spread has been fraught with difficulties. Still, the IT industry in Pakistani is far behind the other developed and developing countries. There are various aspects that influence the proper deployment of IT in companies. These may be of interest not just to academics but also to organizational administrators. Farid (2019) surveyed the technology industry to identify issues, and he stated that organizations have to work on employee productivity. A significant number of projects in the IT industry are reporting incredible losses (Morcov, Pintelon, & Kusters 2020). According to the

Standish Group study (The Standish Group International, 2009), only 32% of Information system (IS) projects succeed, while 44% of IS projects partially fail and 24% of IS projects are total failures and the same finding are consistent (SGPI, 2021).

Another estimate suggests that around 150 billion US dollars are wasted annually on IS project failures in the United States and around 140 billion US dollars in the European Union (Dalcher & Genus, 2003; Gauld, 2007). Consistent with these trends, the failure of IT projects is also widespread in Pakistan (Bilal, Ghani, Liaqat, Bashir & Malik, 2019), causing enormous damage. One of the crucial reasons of the IT projects is rapid changes in market consequently changes become in the project scope – ultimately its show influence on the IT project success. The Pakistan economy faces massive losses because of the failure of IT projects. Besides of failure of projects, the public of Pakistan is also struggling due to technology. Most projects are complete failures due to a lack of desired systems, and some projects were abandoned soon after installation.

Researchers including Dvir, Sadeh, and Malach-Pines (2006) and Sauser, Reilly, and Shenhar (2009) have found that challenges in complex projects are primarily associated with managerial rather than technical issues. In this regard, project management and leadership skills are considered the most critical determinants of successful project outcomes (Kaulio, 2008, Müller & Jugdev, 2012). IT projects are becoming the basis of the high-tech industry. The foundation of the modern world is based on IT projects; some of these are very complicated and integrated through complex systems (Forselius, 2010). The success of these IT projects is based on multiple factors thus to understand the unidentified critical success factors is very important.

1.3   Problem Statement

Research on project success regarding its critical success factors is in the growing stage. Previous researchers explored many technical and behavioral factors for the success of the project in various industries, including the IT industry (Khan, Javed, Mubarak, Jaafar, 2020; Latif, Afzal, Saqib, Sahibzada & Alam, 2020; Oguzie, Nwakanma, Ogbonna, & Udunwa, 2021). The last seven years' critical success factors are summarized in chapter two Tables 2.1, and 2.2 indicate that only a few researchers explored personality influence on project success, and the most relationships between project managers' personality and project success were explored for reference see (Al-Abrrow, Alnoor & Abbas, 2019; Cohen, Ornoy, & Keren, 2013; Creasy & Anantatmula, 2013; Hassan et al., 2017; Turner & Müller, 2005) as compared to the employee's personality.

However, the current study found limited attention on the project employee's mindfulness which is a personality trait (Brown & Rayan, 2003). Therefore, this research intends to address these issues by investigating the relationship between project employees' mindfulness and IT project success. Employees' mindfulness is very crucial for a complex project, and IT project in nature is compassionate (Zhuang, Y. T., Wu, Chen, & Pan, 2017). A mindfulness person is a person who is open to innovation, vigilant, but at the same time thoughtful and alert of his/her surroundings (Langer, 1989; Sternberg, 2000). Based on the proactive motivation framework, individual proactive motivational states depend on personal factors. The project management research scholars ignored the essential aspect of project employee's personality traits like employee's mindfulness influence on project success. Therefore, the current study focusses on this neglected area in the literature.

Besides this, the current study was embedded on the proactive motivation framework, in which stated that personal factors (e.g., employees mindfulness) positively influence individual motivational states, which are can do, reasons to do, and energize to do (Perker, Bindl, Strauss & 2010). Interestingly, these three states are found in psychological hardiness. Psychological hardiness refers to the three interrelated personality characteristics known as commitment, control and challenge, which together appear to protect individuals from the negative effects of stress (Kobasa, 1979; Maddi, 2002).

Employees with high psychological hardiness are more likely to perceive stressors as events that can be a positive challenge, growth opportunity, or controllable, and this has been found to have a positive influence on an individual's reported hopefulness and also their perceived stress. In IT projects, employees suffer due to stress from the organization, managers, clients, and work overload (Balasubramanian, 2019). However, in the current stressful environment, due to globalization and competitive environment, employees high with psychological hardiness are crucial for survival in a stressful environment and competitive advantage. Unfortunately, researchers in project management literature ignored and did not paid attention to this vital factor. Therefore, the current study introduced the psychological hardiness in PBOs, especially in the IT industry of Pakistan.

Concerning this, due to globalization, changing economic environment, competing demands, the employee's IWB has become a crucial factor (Woods et al., 2018) and a key antecedent for the organizational survival (Kim & Koo, 2017; Li & Hsu, 2016). Previous studies focus on the use of IT for organizational innovation (Yunis, Tarhini, & Kassar, 2018), but innovation within IT firms has not been widely studied (Jha & Bose, 2016). On the other hand, scholars such as Battistelli, Odoardi,

Vandenberghe and Napoli, (2019) and Waheed, Xiao-Ming, Ahmad, and Waheed, (2017) stated that for better performance and in a challenging environment, IWB plays a crucial role. IT projects often start with limited information as the level of uncertainty is usually high, which reduces as the team members gradually move towards completion (Winch, 2009). Therefore, moving along the project and tackling new processes and tasks through innovative behaviors helps to enhance project performance (Davies et al., 2018). However, the previous literature more focused on the technical factors than the behavioral factors, specifically in the IT industry of Pakistan (for references, see Table 2.1 and 2.2).

Previous studies on antecedents of IWB have been conducted in different organizations and identified different antecedents like psychological empowerment, psychological safety, inclusive leadership (Javed, Abdullah, Zaffar, Haque, & Rubab, 2019) ethical leadership (Yidong & Xinxin, 2013), human resources practices (Prieto & Pérez-Santana, 2014), transformational leadership (Hassan et al., 2017), knowledge sharing (Asurakkody & Kim, 2020), personality traits (Woods, Mustafa, Anderson & Sayer, 2018), leader-member exchange (Atitumpong & Badir, 2018) and empowering leadership (Jada, Mukhopadhyay & Titiyal, 2019). Project management researchers overlooked the importance of IWB and its antecedents. Interestingly, the relationship between the employee's mindfulness with IWB has not been explored by project management researchers. This research postulates that this relationship is much essential in the current competitive environment, especially in the IT PBOs.

Furthermore, the proactive motivation framework also suggests that when employees' motivational states are active, it will positively influence individual performance (Perker et al., 2010). Andrew et al. (2008) and Maddi, (2004) find psychological hardiness attributes such as commitment, control, and challenge,

constitute a personality style associated with resilience and high performance under a wide range of stressful conditions. Hardiness may contribute to one's performance in various domains (Maddi, Harvey, Khoshaba, Lu, Persico, & Brow, 2006). The current study suggested that mindfulness (personal factor) activates these motivational states (e.g., attributes of psychological hardiness) then employees engage themselves in proactive goals processes, which include goal setting and goal striving for creating a person-environment fit, improved internal organizational functioning, and strategic fit (e.g., IWB) (Perker et al., 2010). However, such a vital relationship is unexplored in the project management literature. This research will contribute to the project management literature by exploring this relationship in the IT industry of Pakistan.

The current study proposes psychological hardiness and IWB as a sequential mediation between employees' mindfulness and IT project success. The relationship was built in the light of the proactive motivation framework, which highlighted that, individual personal factors, i.e., employees' mindfulness, positively influence three motivational states which are "can do, reasons to do, and energize to do," and these interlink states are found in psychological hardiness. Further, after activation of these states, it leads to a goal process, i.e., IWB, and ultimately increases the project's success. This relationship i.e. sequential mediation has yet to be explored as direct or indirect predictor of project success. This relationship is missing in the literature

Project management literature treated leadership style as a very important variable, and various types of leadership have been explored in a different industries, such as transformational, transactional, ethical, servant, and authentic leadership (Bhatti et al., 2020; Hardwith, 2019; Aga, 2016; Hassan, Bashir & Muqadas, 2017). However, the current study found limited attention on inclusive leadership style in the project management literature, specifically in the IT project success. IT projects they

need the full attention of the project employees and the continuous support of the project manager. Inclusive leadership refers to a quality of leadership that can motivate and bring the attention of the subordinates to the task (Javed et al., 2017).

With the presence of a project manager's inclusive behavior, employees feel safe and share ideas openly with the manager and also focus on building good relationships with subordinates (Hollander, 2012; Carmeli et al., 2010). In the beginning, normally, the objectives and focus of IT projects are not clear to the employees; therefore, the employees and manager should have a strong and good relationship to monitor the project to minimize the chance of error. The current study introduces the inclusive leadership style in the project management literature and proposes with the presence of inclusive leadership, the relationship between employees' mindfulness and psychological hardiness becomes strengthened.

In relation to this, the main concern of the study is IT projects of Pakistan. As, the failure rate of the IT projects is very high globally as reported by Standish Group of Study (2021) the failure rate of IT projects is more than 60 percent and globally loss is in millions of dollars. Similarly, Pakistan also failed to complete the IT projects successfully, and some of the projects are abandoned (Mubarak et al., 2022). This research proposes the objectives and questions based on the above justifications.

1.4   Research Aims and Objective

The current study aims to investigates the dispositional and situational factor interactively effect on psychological hardiness, which further leads to the employee's IWB and ultimately increases IT project success. In this regard, the current study has several objectives presented below.

Research Objective 1: To investigate the impact of employee's mindfulness on project success in the IT industry of Pakistan.

Research Objective 2: To investigate the employee's mindfulness relationship with psychological hardiness in the IT industry of Pakistan.

Research Objective 3: To examine the IWB impact on the IT project success in the IT industry of Pakistan.

Research Objective 4: To examine the employee's mindfulness effect on IWB in the IT industry of Pakistan.

Research objective 5: To investigate the psychological hardiness impact on employees IWB in the IT industry of Pakistan.

Research Objective 6: To investigate the sequential mediation of psychological hardiness and IWB in the relationship between employee's mindfulness and the success of projects in the IT industry of Pakistan.

Research Objective 7: To examine the moderating role of inclusive leadership behavior of the project manager in the IT industry in Pakistan between employee's mindfulness and psychological hardiness.

1.5 Research Question

Question1: Does employee mindfulness affect project success in the IT industry of Pakistan?

Question 2: What is the impact of mindfulness on psychological hardiness in the IT industry of Pakistan?

Question 3: Does IWB affect the success of IT projects in Pakistan.

Question 4: Does employee's mindfulness have a relationship with IWB in IT industry of Pakistan?

Question 5: What is the impact of psychological hardiness on IWB in the IT industry of Pakistan?

Question 6: What is the relationship between employee mindfulness and project success through sequential mediation of psychological hardiness and IWB in the IT industry of Pakistan?

Question 7: Does project manager inclusive leadership behavior moderate in the relationship between employee's mindfulness and psychological hardiness in the IT industry of Pakistan.

1.6   Significance of the Study

The current investigation seeks to make several contributions to the body of knowledge and the managerial practice in PBOs. The theoretical and practical significance of the study are given below.

1.6.1   Theoretical Significance

The current aim is to make several contributions to the project management literature. First, the current study introduces employee's mindfulness and its influence on IT project success. Undeniably, mindfulness was studied in organization behavior and psychology research, but it remained unexplored in the project management literature.

Based on proactive motivation framework, this study specifically contributes to the project management literature on how the employees' dispositional factor—i.e., mindfulness—positively influences IT project success. Also, the study contributes the ways that mindfulness can help shape project employee behavior, e.g., IWB, and project success.

. Similarly, the current study pay attention on the hardiness, which are also new concept for the project management researcher and vital for the project employees. Secondly, building on the proactive motivation framework and to propose the dispositional and situational factors interactively activates the motivational states such as can do, reason to do and energize to do the project success.

Based on the proactive motivation framework, this study examined the sequential mediating role of project employees' psychological hardiness and IWB in the relationship between employee mindfulness and project success. By doing so, the study attempts to demonstrate how employee mindfulness translates into project success through its effect on psychological hardiness and IWB. Finally, the current study examines the role of project manager inclusive behavior as a moderator between employee mindfulness and psychological hardiness. When project employees perceive the project manager as supportive and relational, it help to activate motivational states in the form of psychological hardiness. Ultimately, it increase the IWB of the project employees.

1.6.2 Practical Significance

Unrealistic timelines, a lack of communication, scope creep, a failure in risk management, and other issues have been identified as obstacles for project managers. These difficulties can cause a project to fail or cause a behind schedule and budget

overrun. According to a poll conducted by The Standish Group International (2021), 83.9 percent of IT initiatives fail, while 16.2 percent are deemed successful. Several projects were over-budget, behind time, and unable to meet the defined scope. However, 31.1 percent of IT initiatives remain unfinished or halted. In the United States alone, the financial impact of failed IT projects amounted to more than $1 trillion. These figures show that firms must handle projects efficiently and successfully.

This study attempts to discuss the key variables that decide IT projects' fate. The current study is significant for IT projects. This will bring the attention of the top management of the organizations to focus on the employees' and managers' levels for better output and organizational survival. For example, in the current environment, employees' mindfulness is crucial for efficiently completing the task so that top management can prepare employees with a mindful personality. In addition to this, the top management can also work on employee's personality improvement, i.e., mindfulness practices sessions. Therefore, PBOs need to hire highly mindful employees and find ways to improve the levels of mindfulness among employees. For example, PBOs may introduce mindfulness training, such as the mindfulness-based stress reduction program. This would be a useful tool for dealing with stress and enhancing work motivation and performance to achieve project success. There is good reason to believe that mindful employees are more engaged, productive, and practical. Similarly, the PBOs can prefer the project managers with the inclusive behavior characteristics to build quality and healthy relationships with employees, specifically in IT projects. Because at the start of an IT project outcome is not clear to the client and as well project employees, in this situation, the project manager and employees' quality relationship play a significant role in better performance (Khan et al., 2020).

In today's complex and stressful environment, project organizations focus on creativity and innovation to meet the market demand. So, the current study will bring the attention of the top management of the IT organizations to focus on employee development from selection to retaining of the employees and make them innovative for better performance. Fundamental changes in the organizations will not be effective unless the top management creates an appropriate climate for this transformation (Pedersen et al., 2018). IT projects often start with limited information as the level of uncertainty is usually high, which reduces as the project employees gradually move towards completion (Winch, 2009). Therefore, moving along the project and tackling new processes and tasks through innovative behaviors helps to enhance project success (Davies et al., 2018).

1.7   Definition of the Key Terms

In this study, all the key adapted variables are already defined by previous researchers, which are given below.

Project Success

PMI defined project success as *"balancing the challenging requirements for project scope, cost, quality, and time over and above addressing the rising project stakeholder needs and desires*" (PMI, 2008, p. 9).

Mindfulness

Kabat-Zinn (1994, p. 4) defined mindfulness as *"paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally"* and brown and Creswell and Ryan (2015, p.1) proposed another definition of mindfulness *"clear-eyed attention to the workings of the mind, body, and behavior."*

IWB

Janssen (2000, p. 288) define IWB as *"As the intentional creation, introduction, and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization."*

Psychological Hardiness

Psychological hardiness is a personality composite of beliefs about self and world involving the importance of a sense of commitment, control, and challenge (Kobasa, 1979; Maddi, 1999). Commitment is defined as a *"tendency to involve oneself in (rather than experience alienation from) whatever one is doing or encounters"* (Kobasa, Maddi, & Kahn, 1982, p. 169). Control is a *"tendency to feel and act as if one is influential (rather than helpless) in the face of the varied contingencies of life" (Kobasa et al., 1982, p. 169).* Finally, the challenge is a *"belief that change rather than stability is normal in life and that the anticipation of changes are interesting incentives to growth rather than threats to security"* (Kobasa et al., p. 169). These three states combined represent psychological hardiness.

Inclusive Leadership

Nembhard and Edmondson (2006, p. 947) defined inclusive leadership as *"words and deeds by a leader or leaders that indicate an invitation and appreciation for others' contributions"* (2006: 947).

1.8   Overview of the Chapters

Chapter one introduced the behavioral factors and explained how these factors influence the project success of the IT industry of Pakistan. After this, based on these

factors, the study also developed the research questions and objectives. Finally, highlight how the current study contributes to project management literature and what the implications are for project practitioners.

Chapter two explains the variables, the definitions, and their measurement, i.e., dimensions, and explains how it will work in PBOs. Then based on the literature, highlight the research gaps in the project management literature and explain them one by one. Further, the proposed framework is explained in detail and linked with the current study, and based on this, it also developed research hypotheses.

In chapter three, the research philosophy was linked with the current study, and then explained the research design in detail. In the current study, a time-lagged design approach was used to collect data from respondents, and respondents were approached through purposive sampling techniques. Lastly, in the current study, all employed scales are already established in different contexts and industries.

Chapter four consists of data analysis; after collecting the data, the different tests were performed- those tests necessary to conclude the findings are all discussed in detail.

Chapter five discusses all the findings of the study, explained and justified whether the relationships is accepted or rejected. Based on these findings, the current study provides recommendations to the IT PBOs of Pakistan.

1.9   Summary of the Chapter

In sum, the above chapter highlights the issues in the IT industry of Pakistan and proposed behavioral factors and how these factors influence project success. Based on these factors developed, the research questions and objective of the study. The theoretical and practical significance of the study is also elaborate. Lastly discussed the overview of the all chapters

CHAPTER 2

LITERATURE REVIEW

2.1   Overview

The current study aims to investigate the employee's mindfulness impact on project success in the IT industry of Pakistan with sequential mediation of psychological hardiness and IWB and the moderation role of inclusive leadership between employee's mindfulness and psychological hardiness. In chapter two, the current study discussed the background of all variables (e.g., history of the variables, Conceptualization, Definition) and the relationship between associated variables and theoretical support of the proposed model. Furthermore, the study also critically reviews the importance of the variables for the IT industry of Pakistan.

2.2   History and Concepts of Variables

The current study proposed variables are employee's mindfulness, psychological hardiness, inclusive leadership, project employee's IWB, and project success. In section 2, the study explained all variable's conceptual definitions and their importance for PBOs, especially for the IT industry.

2.3   Project Success

Project success is the main variable of interest of the current study. The current study focuses on the IT project success and its critical success factors on how to accelerate the project success, especially in the Pakistani context. Project success is the main objective of PBOs, and those organizations using the project management process are called the PBOs. The ultimate objective of these organizations is project

success. In this section, this thesis will first explain the concept of project management and PBOs before dwelling into and on project success and critical success factors.

2.3.1   Concept of Project and Project Management

The concept of project management practices is new? No, many examples exist in the history of project management practices before the 1900s. The outcome of these practices are the Coliseum, the Great Wall of China, the hanging gardens of Babylon and the pyramid (PMBOK, 2017). Without proper planning, engineers, and ingenious architects, these projects are not possible. These projects are considered megaprojects, and thousands of workers were managed to perform the task. Based on these examples, the current study summarizes that project management practices started when humans inhabited the world.

Despite all of history's big historical projects, documentation and historical records of previous initiatives are limited. This can be due to a number of different reasons. First, educated upper society was more concerned with the project's end outcome than with the process of developing it. It didn't help that the implementation of such projects was usually the task of artisans who weren't always educated or interested in sharing their techniques with others. On the contrary, many of these projects' execution specifics were kept secret among a particular tribe or family specializing in craftsmanship and passed down from generation to generation. (Karma, 2008).

In the current era, project management practices are becoming advanced, and still, experts are working on improving the project management process. In this regard, one of the well-established organizations, namely PMI, is appropriately working on advancing the project management practices to provide benefits to the whole world.

PMI defines a project as "a temporary endeavor undertaken to create a unique product, services or result" (PMBOK, 2017). A project is a series of complicated, different, and interlinked activities that have a combined objective to be completed in the given time frame and budget according to the requirements. With the change in the business paradigm over recent decades, projects have become another major way of doing work in today's organizations alongside other processes (Hazır & Ulusoy, 2020).

By PMBOK (2017), organizations become valued if the projects are linked to the strategic objectives. Likewise, if the projects are successfully implemented, it brings success to the organization, but it helps attain long-term competitive advantage in an organization. Organizations build their name if they keep on providing quality through successful projects. Therefore, for managing projects, PMI developed proper methodology under the umbrella of Project management.

Project management is to apply knowledge and skills to perform project activities to achieve short and long-term objectives (PMBOK, 2017). Different perspectives and definitions provided by different scholars should be understood in order for project management concept; for instance, Kerzner (2017) emphasized that project management is to plan, organize, control, and direct the resources available to complete the project within the provided timeline. Likewise, Zhang et al. (2015) were of the view that project management is to achieve the objectives of the project provided the skills, tools, and controls.

Project management is an important tool for an organization to align procedures, meet the budgeted criteria and bring efficiency in an organization (Patanakul, Lewwongcharoen & Milosevic, 2010). This opinion was also supported by Kloppenborg, Tesch, and Manolis, (2011), arguing that project management helps

the organization to control the resources and eliminate waste through specific strategies to get a competitive advantage in the marketplace. Moreover, In PMBOK (2017), the project management methodology was more advanced and proposed some groups and knowledge areas such as five process group. The five processes are initiating, planning, executing, monitoring and controlling and closing. A project team increases its chances of success by following each step. Likewise, each phase has some knowledge areas, for project managers need to understand each phase and associated knowledge areas for better results. So, the project management process is an important tool for every industry to achieve growth and success. This thesis focuses on the IT industry of Pakistan for effectively and efficiently managing the projects.

2.3.2 Project Management in the IT Industry

One of the top emerging industries that are considered for national development is the IT industry. This industry is contributing efficiently to the growth of nations (Heo & Lee, 2019). This industry utilizes computer programming and use of software programs for efficient management of information. This domain of IT is called Information Services and Management Information Services. These departments are accountable for computer-related activities and the integrated implication of management processes with the help of processing the information. The protection of user information and using and transmitting it is also the duty of IT infrastructure.

The basic use of project management is ensuring the organization and managing the assets for the cumulative delivery of activities and completion of the project on time. The useful information and its implementation are also up to project management (Konan & Harper, 2019). The project is referred to as a permanent or