IMPACT OF LEARNING ORGANIZATIONS ON EMPLOYEE RESILIENCE AND WORK ENGAGEMENT

Ph.D. THESIS

by

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**DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE-247 667 (INDIA)
MAY, 2018**

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A THESIS

*Submitted in partial fulfilment of the
requirements for the award of the degree*

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DOCTOR OF PHILOSOPHY

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ROORKEE

<u>CANDIDATE'S DECLARATION</u>

I hereby certify that the work which is being presented in the thesis entitled **"IMPACT OF LEARNING ORGANIZATIONS ON EMPLOYEE RESILIENCE AND WORK ENGAGEMENT"** in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy and submitted in the Department of Humanities and Social Sciences of the Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out during a period from July, 2014 to May, 2018 under the supervision of Dr. Pooja Garg, Associate Professor, Department of Humanities and Social Sciences, Indian Institute of Technology Roorkee, Roorkee.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other Institute.

(PARUL MALIK)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

(Pooja Garg)
Supervisor

Date: May, 2018

ABSTRACT

The purpose of the present study is twofold: to test the impact of learning organization on employee resilience and work engagement; and to explore the mediational role of employee resilience in the association between learning organization and work engagement. Large-scale Indian IT/ITES organizations located in 8 states of India were chosen as unit of analysis. Present research is confined to the middle level managers pronounced as the knowledge professionals working in IT companies. 330 middle level managers completed their surveys questionnaire measuring variables: learning organization culture, employee resilience and work engagement. Confirmatory factor analysis was employed to analyze the proposed measurement model. Hayes and Preacher MACROS (2011) was employed to test the study hypotheses.

The study findings offer interesting insights into the role of learning organization and employee resilience in augmenting work engagement in the context of Indian IT employees. The findings of the current study revealed that the association between learning organization and employee resilience, in turn, foster work engagement. The study results demonstrated that the learning organization culture boost the level of resilience experienced by employees and, as a consequence, exerts a positive impact on work engagement. The results of this study affirmed that resilience can be fostered among employees by inculcating a learning organization culture, which avow the fact that resilience can be developed by designing interventions at workplace. This evidences the critical influence of formal workplace support as an external resource. By identifying an organizational antecedent, the study findings bring a new dimension, which helps close a gap in the literature on resilience at work. As learning organization culture arise as initiator of this fruitful process, organizations should be interested in implementing interventions aimed at development of learning organizations. HRD practitioners should take into account the relevance of designing learning organization culture to foster employees' resilience, as this may lead to long-term benefits such as a significant increase in employees' level of engagement. By investigating the relationship between learning organization, employee resilience, and work engagement; the present study embarks to fill the paucity in academic and practitioner literature in the Indian organizational context.

Keywords: Learning Organization, Employee Resilience, Resilience at Work, Work Engagement, Information Technology (IT) Organizations, India

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LIST OF ABBREVIATIONS

LO	Learning Organization
ER	Employee Resilience
WE	Work Engagement
RAW	Resilience at Work
AMOS	Analysis of moment structures
SPSS	Statistical package for social sciences
IT	Information Technology
HRM	Human Resource Management
IV	Independent Variable
DV	Dependent Variable
CFA	Confirmatory Factor Analysis
M	Mean
SD	Standard Deviation
Cronbach's α	Cronbach's index of internal consistency
χ^2/df	Chi-square/degree of freedom
GFI	Goodness of fit index
CFI	Comparative fit index
NFI	Normed fit index
RMSEA	Root mean square error of approximation
SRMR	Standardized Root Mean Squared Residual

Chapter 1

Introduction

1.1 Background of the Study

"When the winds of change blow, some build walls while others build windmills".

-Chinese proverb (cited in Simon, 2011)

The above proclamation stands significant in today's competitive and turbulent environment that necessitate organizations to continuously seek novel strategies for preparing their workforce to adapt effectively to unprecedented changes and boost their work engagement (Allvin et al., 2011; King, Newman, & Luthans, 2016; Raj & Srivastava, 2013; Rutter, 2012). Undeniably, the modern era organizations are facing an incessant sweep of change characterized by volatile and multifaceted working milieu, intensified global competition, changing workforce demographics, and the propagation of international global agreements and standards. This escalation of change is evinced in many industries, but perhaps none are as discernible as the 'Information Technology' (IT) industry that is undergoing ceaseless technological cataclysms and organizational restructuring in the form of downsizing, delayering, and business process reengineering.

With the entry of multiple players, technological advancements and regulatory changes across the globe, Indian IT/ITES industry is undergoing recurrent progressions to upsurge their alignment with the shifting client needs, business priorities, and evolving industry standards (Alawadhi & Mendonca, 2017; Phadnis & Ayyar, 2017). Subsequently, IT organizations require their employees to not only adapt effectively to the operative changes but also stay engaged in spite of the challenging situations at work (Aon Hewitt, 2015). It is well documented in the literature that the collective attitudes and capabilities of employees contribute to organizational performance and in turn enhance organizational effectiveness (Mujtaba, Marschke, & Nguyen, 2012). Indeed, the sustainability of an organization is fortified by its employees' adaptive and generative proficiencies required for successful transitioning and enhanced engagement (Shin, Taylor, & Seo, 2012). Henceforth, in order to flourish in the present era of economic uncertainty and intense competitiveness, the contemporary organizations demand a pool of resilient and engaged employees (Lee, Vargo & Seville, 2013; NASSCOM, 2015a).

Evidently, both the ceaseless technological alterations and the dynamic milieu prevalent in the IT industry call for strategies directed at generating a resilient and engaged workforce. As a matter of fact, in the present decade, technology and expensive infrastructure, large-scale operations and capital can merely act as the "entry criteria", but cannot be patented as the competitive tools for organizations sustainability. Indeed, the accelerated rate of change has necessitated the reassessment of traditional managerial concepts, revisiting of traditional business models, processes and systems, and embracing of new management approaches. Resonating this fact, Malik and Garg (2017b) stressed that technology and automation have radically altered the very nature of change itself, since it is now more open-ended, radical, complex and continuous. Given this fact, in the current turbulent environment, organizations cannot engender employees' adaptability and engagement levels by promoting formal trainings and demonstrating the rationale for environmental changes, rather the most prominent strategy lies in a company's ability to proactively cultivate a learning organization culture (Tripathi & Nongmaithem, 2007). This assertion is even more crucial for 'Knowledge Intensive Firms' (KIFs) such as IT/ITES companies, where automation and technological advancements constitute the key resources for sustainability. Thus, companies need to explicitly focus on fabricating a learning organization culture. Garvin, Edmondson, and Gino (2008) defined *learning organization* as one, "*where employees excel at creating, acquiring, and transferring new knowledge*".

Though, learning organization culture has been extensively recognized as a vital element for an organization's competitive advantage (Jamali & Sidani, 2008), literature still lacks in demonstrating its role in fostering employee resilience and work engagement. The concept of '*employee resilience'* and '*work engagement*' holds a significant place for the IT/ITES organizations, since IT employees work in a multifaceted environment characterized by mounting work demands, extensive projects, mentally challenging work roles, aggressive timelines, and skills obsolescence (Bagga, 2013; Messersmith, 2007; Nair &Vohra, 2010). Due to these complexities, organizations cannot merely rely on traditional competency-based strategies and the key to sustainability lies in the organizations ability to foster their employees' resilient capability and enhance their engagement levels (Malik & Garg, 2017d; Hodliffe, 2014).

Eventually, the development of resilience among employees could be viewed as a budding retort to the stressful working environment and contemporary lifestyles that would not only support them

to thrive in the uncertain working environment but could also fuel their engagement levels (Winwood, Colon, & McEwen, 2013). Existing research posits that an organization's capability to develop resilience among employees determines its ability to vanquish challenges and build competitive advantage (Hodliffe, 2014; Cooke et al., 2016; Shin, Taylor & Seo, 2012). Thus, in order to deal with the business volatilities and incessant technological advancements, it becomes crucial for contemporary organizations to cultivate a learning organization culture (Akhtar, Khan, & Mujtaba, 2013) that could play a vital role in developing employees' resilience and boosting their work engagement.

The concept of 'learning organization' attracted mounting attention with the advent of Senge's (1990) seminal work '*The Fifth Discipline'*. Subsequently, Watkins and Marsick (1993) conducted a substantial research on the concept of learning organization and its dimensions. Watkins and Marsick (1993) stated that, "*learning organization is one that learns continuously and transforms itself*". The present research draws on the Watkins and Marsick's conceptualization of learning organization (Watkins & Marsick, 1993, 1996). Watkins and Marsick (1993) demonstrated '*seven dimensions of learning organization',* which encompasses *continuous learning, inquiry and dialogue*, *team learning*, *embedded system, system connection, empowerment, and strategic leadership*. Researchers advocated that learning commences with the individual, and further moves to the team level collaboration, and finally advances to the organizational level through embedded structures that augment and encourage learning throughout the organization (Marquardt, 2002; Senge, 1990; Watkins & Marsick, 1993).

Over the years, there have been majority of studies which investigated the construct of learning organization through theoretic contents and operational models (for instance, Örtenblad, 2015; Wilson & Beard, 2014; Hannah & Lester, 2009). Various studies indicated that learning organization exhibit a significant relationship with organizational performance (Akhtar, Arif, Rubi, & Naveed, 2011; Ho, 2011; Ponnuswamy & Manohar, 2016); organizational commitment (Baird, 2012; Tseng, 2010; Atak & Erturgut, 2010); innovative behavior (Park, Song, Yoon, & Kim, 2014); and employee satisfaction (Hatane, 2015; Kim & Han, 2015). Although, these outcomes are pertinent to organizational effectiveness, the current study argues that organizations need to invest in developing their employees' resilience and in turn boost their engagement to sustain in the ever changing

environment. Thus, recognizing the role of learning organization culture in fostering employee resilience and work engagement becomes imperative.

Addressing this critical gap, the present study investigates the underlying mechanism of how learning organization leads to the development of resilience among employees and generate engaged workforce in Indian IT/ITES organizations. The study posits that a learning organization culture is a crucial prerequisite for fostering resilience among employees and sequentially enhancing their engagement levels (Wang, Cooke, & Huang, 2014). This line of thought is echoed by recent researches that demonstrate the vital role of employee resilience in augmenting work engagement (e.g., Cooke et al., 2016; Waddell, 2015; Hodliffe, 2014).

The construct of '*resilience*' has garnered significant attention in the past few years (Hoopes & Kelly, 2004; Langvardt, 2007, Maddi & Khoshaba, 2005). Earlier, the construct of resilience has been investigated profusely in clinical and developmental psychology (Luthar, 1991; Masten, Best, & Garmezy, 1990; Masten et al., 1999), and a substantial amount of research contributing to resilience focused on the individual factors such as self-esteem, self-efficacy, and optimism (Luthans, Vogelgesang, & Lester, 2006). A glance at the existent literature demonstrates a plethora of conceptual and operational definitions of resilience (Gillespie, Chaboyer, Wallis, & Grimbeek, 2007; Herrman et al., 2011); nevertheless, they are dominated by two commonalities. *Firstly, resilience involves complexity and adversity, and secondly, it reflect positive adaptation.*

Previous research considered resilience as a dispositional attribute or individual's trait and defined it as, "*a personality characteristic that moderates the negative effects of stress and promotes adaption*" (Wagnild & Young, 1993). In fact, majority of the literature on resilience conceptualize it as an 'individual's trait' rather than a 'state and developable capacity' that can be nurtured among employees (Moenkemeyer, Hoegl, & Weiss, 2012). However, the current study departs from the dispositional view of resilience and is guided by the conceptualization given by Luthans (2002b) who defined resilience as, "the *developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility*". Buzzanell (2010) also argued that, "rather than an individual phenomenon that someone either possesses or does not, resilience can be developed, sustained, and grown through discourse, interaction, and material considerations". Echoing a similar view point, the present research underpins the concept

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of employee resilience, *"as an adaptive and resource-utilizing capacity that can be facilitated and developed by offering organizational resources to survive, adjust and flourish in response to fluctuating work situations"* (Rossi, Meurs, & Perrewé, 2013). Resonating a similar perspective, Hodliffe (2014) defined employee resilience as, "*an adaptive and resource utilizing capacity, which makes employees more capable to handle changes and adversity within the workplace*". Torres and Fyke (2013) also advocated that resilience can be developed as a process that is contextual and could be influenced by environmental factors. Nevertheless, resilience interventions are still pristine at workplace, and research is insufficient to assess its role in enhancing work engagement. Thus, given the developmental nature of resilience, the imperative challenge faced by investigators is to investigate the mechanism of how resilience could be developed among employees (Masten & Reed 2002; Davis, Luecken & Lemery- Chalfant, 2009). Specifically, this study advocates that resilience could be taught, practiced, and developed as an ability among employees. Given this fact, the present study investigates the role of learning organization culture in fostering employee resilience.

Over the years, various case studies, theoretical reviews, and applied articles have enunciated the eminent role of resilience (Langvardt, 2007; Maddi & Khoshaba, 2005; Payne, 2009), and confirmed that resilient employees are more capable to face incessant changes and adapt effectively to challenging roles, tasks, and situations (Rossi, Meurs, & Perrewe, 2013; Shin, Taylor, & Seo, 2012; Winwood, Colon, & McEwen, 2013). Research offered empirical support that stress related consequences, such as burnout and attrition can be avoided or buffered by a higher level of resilience (Dunn, Iglewicz, & Moutier, 2008). Also, literature shows that highly resilient individuals effectively survive adversity and changes (Rossi, Meurs, & Perrewe, 2013). Instead of getting bogged down to hardships that increase turnover intentions, resilient employees bounce back and develop new skills to meet job demands. In fact, resilient employees seek new opportunities (Waugh, Fredrickson, & Taylor, 2008), develop beneficial relationships at work (Fredrickson, Tugade, Waugh, & Larkin, 2003), adapts in the face of uncertainty (Coutu, 2002), flourishes in spite of adverse situations (Peterson, Walumbwa, Byron, & Myrowitz, 2009), and shows enhanced workplace performance (Youssef & Luthans, 2005).

However, despite the burgeoning literature investigating its positive outcomes, less attention has been paid to resilience in the workplace context (Blasdel, 2015; King, Newman, & Luthans, 2015). Despite the paramount growth of positive psychological approach and its application at workplace,

much of the focus of HRM practitioners have been on training interventions and lacked approaches for developing employees' resilience. It is evident by the crucial gap prevalent in the existent literature, which reflect that researchers still lacked to view resilience as an ability that can be developed among employees (Robertson, Cooper, Sarkar, & Curran, 2015; Wang, Cooke, & Huang, 2014). Perhaps, the extant research virtually offers scarce empirical evidence to demonstrate its relationship with learning organization and work engagement. To date, there has been dearth of studies investigating the underlying mechanism of the role of learning organization in fostering employee resilience and subsequently influencing work engagement.

Lately, work engagement has emerged as a significant concept within the field of organizational and positive psychology (Seligman & Csikszentmihalyi, 2000). The scholarly attention on the construct of work engagement have increased exponentially over the decade (Bakker, Demerouti, & Sanz-Vergel, 2014; Ghadi, Fernando, & Caputi, 2013). Researchers have reported significant implications of work engagement on employees attitude and discretionary workplace behaviors (Bakker, Demerouti, & Sanz-Vergel, 2014; Quiñones, Van den Broeck, & De Witte, 2103; Ghadi, Fernando, & Caputi, 2013). Prior researches have shown a significant liaison of work engagement with employees' performance, commitment, and organization citizenship behavior (Breevaart, Bakker, Demerouti, & Van den Heuvel, 2015; Yalabik, Van Rossenberg, Kinnie, & Swart, 2015; Babcock-Roberson & Strickland, 2010).

Primarily, Kahn (1990) prompted a substantial interest in the concept of work engagement among management practitioners and scholars. Kahn (1990) conceptualized work engagement as, "*the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances.*" May, Gilson, and Harter (2004) empirically supported Kahn findings and reported that psychological meaningfulness, safety, and availability were significantly related to work engagement. Schaufeli and colleagues (2002) further extended on the Maslach's burnout concept (Maslach, Schaufeli, & Leiter, 2001) and Kahn's personal engagement (1990), and proposed a more comprehensive taxonomy of work engagement. Essentially, this study draws on the conceptualization of work engagement proposed by Schaufeli, Salanova, González-Romá, and Bakker (2002), who defined it as, "*a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption*".

Since its genesis, the construct of *work engagement* has been studied significantly by various researchers, however, research on drivers of work engagement is still inadequate and have been largely unsystematic (Wefald & Downey, 2009). It is evident by Bakker, Albrecht, and Leiter's (2011) review on work engagement who advocated that, "*we need to pay more attention to the broader contextual organizational factors that impact engagement*". The scarcity of research on the contextual organizational factors was also noted by Jenkins and Delbridge (2013). Macey, Schneider, Barbera, and Young (2009) further noted that, "*the antecedents of work engagement are located in conditions under which people work and the consequences are thought to be of value to organizational effectiveness*". Given this fact, the existent literature shows that work engagement is influenced by both the *'personal factors'* (e.g., personality factors namely extraversion and conscientiousness, optimism, self-efficacy, and emotional stability etc.); and *'environmental factors'* (e.g., social support, job design, autonomy, and supervisor feedback etc.) (Christian, Garza, & Slaughter, 2011; Inceoglu & Warr, 2011; Macey & Schneider, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Consequently, the current study advocates an integrated perspective by investigating the effects of learning organization and employee resilience on work engagement, thus, providing a more unified approach. Specifically, a resourceful work environment might contribute to the development of personal resources, i.e., resilience (Youssef & Luthans, 2007). Moreover, this study assert that resilient employees not only sustain through challenges, rather they also exhibit confidence in their abilities, which ultimately boost their work engagement (Hodliffe, 2014; Cooke et al., 2016). Therefore, learning organization culture could be seen as an imperative strategy for organizations in developing employee resilience and in turn enhancing work engagement.

Though, in spite of the demand for a highly resilient workforce in existent multifaceted operative milieu of service organizations, existent literature offers scant empirical evidence on strategies for developing employee resilience. Indeed, literature still lacked to explore the role of learning organization in developing employee resilience. This study bolsters the *'developmental perspective'* of resilience, which treats resilience as a behavioral capability that not only enable individuals to effectively cope and deal with adversity but also contribute to employees well-being and enhance their performance (Kuntz, Malinen, & Näswall, 2017). The present study, thus, advocates that resilience is not a stable trait and emphasizes that learning organization might play a substantial role

in fostering employee resilience, which could further contribute to higher levels of work engagement.

   With this precept in mind, this study, thus, offers potential utility for both the organizations and employees. Investigating the underlying mechanism of how learning organization promotes the development of employee resilience and work engagement can prove valuable for the organizations by offering significant insights for implementing new practices and improving the existing processes. Additionally, it can aid employees working in demanding and competitive environment to adapt effectively to challenging work roles and situations, which in turn can play a pivotal role in enhancing work engagement levels.

Therefore, the present study propose the conceptual model (**Figure 1.1**), addressing the liaison between learning organization, employee resilience, and work engagement.

Figure 1.1: The proposed conceptual model depicting the relationship between learning organization, employee resilience, and work engagement.

Learning Organization

-Learning opportunities

-Inquiry and dialogue

-Team learning

-Empowerment

-Embedded system

-System connection

-Strategic leadership

Employee Resilience

- Living authentically

- Finding your calling

- Maintaining perspective

- Managing stress

- Interacting cooperatively

-Staying healthy

-Building networks

Work Engagement

-Vigor

-Dedication

-Absorption
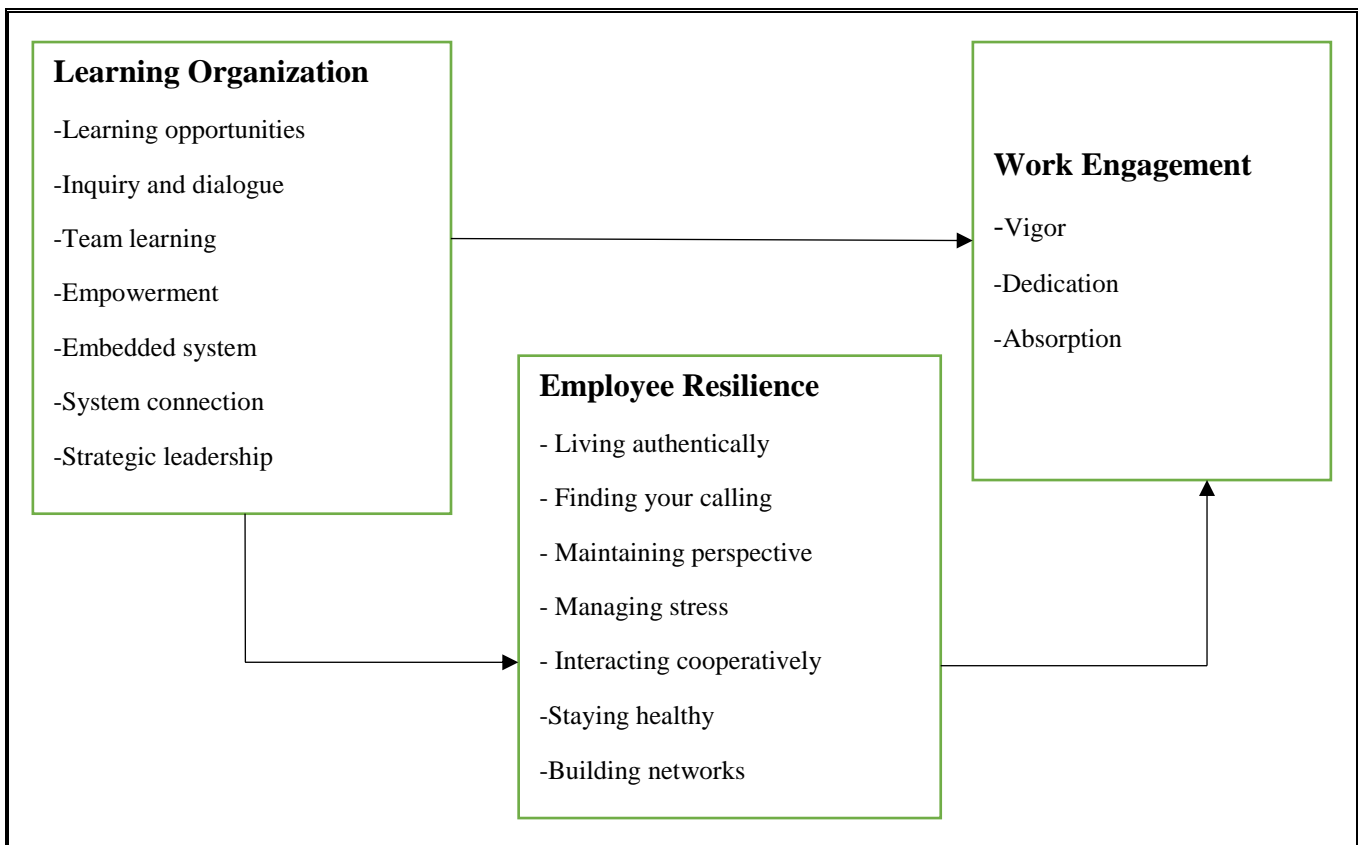
1.2 CONCEPTUAL DESCRIPTIONS

1.2.1 Learning Organization/ Learning Organization Culture (LOC)

Learning organization can be termed as an organizational panacea in the modern era (Jamali & Sidani, 2008). The term 'learning organization' was coined around 1988 by Hayes et al. in the USA and Pedlar et al. in UK (Jones & Hendry, 2001). Lately, the concept of learning organization attracted escalating attention from both the academicians and human resource development practitioners (Song & Chermack, 2008). Existent literature reveals that a learning organization culture enhance individual's performance, as well as results in improved financial outputs (Ellinger, Ellinger, Yang, & Howton, 2002). Al-adaileh, Dahou, and Hacini (2012) referred learning organizations as the, "third millennium organizations", which offers dynamic systems and structures to deal with the arduous work settings of contemporary organizations. According to Easterby-Smith, Crossan, and Nicolini (2000), "interest in the issue of learning in organizations dates back to the late 1950s, which grew up almost 'underground' until a sudden explosion in the late 1980s".

Argyris and Schon's (1978) work, "Organizational Learning: A Theory of Action Perspective" contributed greatly to the emergence of 'learning' as a significant organizational process. However, the concept of 'learning organization' attracted mounting attention with the landmark contribution of Senge's (1990) seminal work "The Fifth Discipline". Senge (1990) defined learning organization as one, "*where people continuously expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together*". Senge (1990) proposed the model of learning organization centering on the five disciplines namely: *personal mastery, mental models, shared visions, team learning, and system thinking*. The pivotal work of Senge (1990) laid pavement for the enormous popularity of the concept, which lately became a 'buzzword' in management discourse and captured huge interest of the academicians.

The concept of learning organization is grounded in the theoretical framework of "*organizational learning*", and much of the foundational research for learning organization stems from organizational learning literature. Though, the learning organization concept is associated with organizational learning; the two are more specifically delineated to highlight their unique characteristics. However, the two terms were often used interchangeably despite their distinct differences and have created considerable debates among the researchers (Edwards & Peccei, 2007).

The two streams were bifurcated in the middle 1990's, with offering of distinctive definitions for both the constructs of *'organizational learning'* and *'learning organization'* (Easterby-Smith, Snell, & Gherardi, 1998). Gorelick (2005) emphasized that, "the two terms are reliant upon one another and the components in a learning organization provide tools and methods that are applicable and useful in the process of organizational learning". Furthermore, Perkins et al. (2007) stated that, "If *organizational learning* signifies the process, then the *learning organization* represents the ideal or goal". Armstrong and Foley (2003) concluded that *'organizational learning'* is the process involved in individual and collective learning, while the concept of *'learning organization'* represents an 'applicative perspective' incorporating specific analytical and evaluative operational tools that aid in identifying, promoting, and evaluating the quality of the learning processes within the organizations. Echoing similar thoughts, Marquardt (1996) indicated that '*organizational learning'* is "how learning occurs on a wide organization basis", which is contrary to a *'learning organization'* concept that describes the "structures, ideologies and characteristics of organizations that learn collectively".

'Organizational learning' is a dynamic process of "creation, acquisition, and integration of knowledge aimed at the development of resources and capabilities that contribute to better organizational effectiveness" (López, Peón, & Ordás, 2006). According to Örtenblad (2002), *"organizational learning"* remained largely the domain of academics and was more theoretical, where researchers were chiefly engrossed in exploring the learning processes within organizations. In contrast, *"learning organization"* concept is more assertive and concrete, which is oriented towards the establishment of models that facilitate organizations learning and create competitive advantage. Learning organization perspective deals more aptly with the crucial question of how practitioners can change the behavior of organizations and implement the desired processes and structures (Örtenblad, 2002; Easterby-Smith, Snell, & Gherardi, 1998). Örtenblad (2002) identified organizational learning as one aspect of a learning organization.

Sun and Scott (2003) emphasized that organizational learning is the learning process, which attempts to explore "how individuals in the organization learn". Whereas, learning organization culture transforms an organization towards a desired state. Within learning organization, learning is transferred from individual to team level and ultimately results in collective organizational level changes in behavior.

A learning organization cultivate a supportive organizational learning culture that significantly influence workplace performance (DeChurch & Mesmer-Magnus, 2010; Song, Joo, & Chermack, 2009; Yoon, Song, Lim, & Joo, 2010; Rijal, 2010). Reynolds and Ablett (1998) also emphasized that learning organization changes the behavior of the organization itself. According to Marquardt (1996), learning organization culture imbibes valuable attributes namely flexibility, and innovation; and rejuvenate ceaselessly in response to environmental changes.

1.2.1.1 Defining Learning Organization

The concept of 'learning organization' has been conceptualized in different ways (Ali, 2012). Since, different academic studies are based upon diverse theoretical assumptions that offered different characteristics of learning organization, there has been no unified definition of the concept to date (Tripathi & Nongmaithem, 2007). Over the years, numerous definitions of learning organization have been proposed by various researchers:

Senge (1990) defined learning organization as one, "where people continuously expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together".

Kim (1992) defined learning organization as, "one that focuses on the learning of all its members through the process of information acquisition and a review orientation".

Watkins & Marsick (1993) viewed learning organization as, "one that learns continuously and transforms itself".

Garvin (1993) defined learning organization as, "an organization skilled at creating, acquiring, interpreting, transferring, and retaining knowledge, and at purposefully modifying its behavior to reflect new knowledge and insights".

Marquardt (1996) viewed learning organization as, "an organization which empowers people within and outside the organization, collectively learns and transforms itself to better collect, manage and use knowledge for corporate success".

Gephart, Marsick, Van Buren, & Spiro (1996) defined learning organization as, "an organization in which learning processes are analyzed, monitored, developed, managed and aligned with improvement and innovation goals".

Pedler, Burgoyne, & Boydell (1997) viewed learning organization as, "an organization that facilitates learning for all its members and consciously transforms itself and its context".

Griego, Geroy, & Wright (2000) demonstrated that learning organization is "one which readily transforms through continuous organizational rejuvenation and gradually achieves excellence".

Rowden (2001) defined learning organization as, "an organization in which everyone is engaged in solving problems, enabling the organization to continuously experiment, change, and improve, and increasing its capacity to grow, learn and achieve its purpose".

Lewis (2002) defined learning organization as, "an organization that regularly creates, disseminates and integrates knowledge, transforms itself and modifies its action based on new knowledge, perceptions and experience in order to meet its strategic objectives".

Pettinger (2002) emphasized that learning organization "encompass strategies for augmenting organizational effectiveness through developing the competences, behavior, attitude and abilities of the employees".

Marquardt (2002) defined learning organization as, "an organization that effectively and collectively and continually transforms itself for better management and use of knowledge; empowers people within and outside of the organization to learn as they work and utilizes technology to maximize learning and production".

Armstrong & Foley (2003) defined learning organization as, "the one that has appropriate cultural facets (visions, values, assumptions and behaviors) that support a learning environment; processes that foster people's learning and development by identifying their learning needs and facilitating learning; and structural facets that enable learning activities to be supported and implemented in the workplace".

Yang, Watkins, & Marsick (2004) defined learning organization as, "an organization that exhibits a high degree of adaptiveness and updates itself by possessing continuous learning cycles".

Moilanen (2005) defined learning organization as, "a consciously managed organization with learning as a vital component in its values, visions and goals as well as in its everyday operations and their assessment".

Although, various researchers reviewed and interpreted the concept of learning organization differently, several common themes emerged. The principal themes identified in the numerous definitions of learning organization are namely: *continuous learning and development* (Rowden, 2001; Watkins & Marsick, 1993); *creation, acquisition and dissemination of information* (Lewis, 2002); *individual, team and organizational learning imbibed in shared values, and visions and goals* (Senge, 1990); *as well as transformation* (Griego, Geroy, & Wright, 2000).

Senge (1990) proposed five organizational disciplines for building a learning organization, which encompasses *personal mastery, mental models, shared vision, team learning, and systems thinking*. **'Personal mastery'** is the development of individual's desired learning. The organization structure and environment contributes to the development of personal mastery towards an established goal and often brings people into close interaction to learn. **'Mental models'** are the internal frames that guide an individual's actions and decisions. According to Senge, "mental models are the images, assumptions, and stories which people carry in the minds of one selves, other people, institutions, and every aspect of the world". **'Shared visions'** are defined as, "sense of commitment in a group, by developing shared images of the future one seek to create" (Senge, 1990). **'Team learning'** manifests the enhancement of conversations among team members as the primary medium to build their collective capabilities. According to Senge (1990), "the discipline of team learning starts with dialogue, the capacity of members of a team to suspend assumptions and enter into a genuine thinking together". **'System thinking'** was described by Senge (1990) as "a large and fairly amorphous body of methods, tools, and principles, all oriented to looking at the interrelatedness of forces, and seeing them as part of a common process".

The present study draws on the Watkins and Marsick's (1993, 1996) conceptualization of learning organizations that served as the principal framework for this research. Watkins and Marsick (1993) stated that, "the learning organization is not a prescription, but rather a template for the examination of current practices". Watkins and Marsick (1993) proposed an integrated model to assess learning organization culture. They identified that organizations could be gauged for their learning culture grounded on seven discrete yet interconnected action imperatives. These include: *continuous learning opportunities, and inquiry and dialogue at the* **individual level**, *team learning at the* **team/ group level**, and *embedded system, system connection, empowerment, and strategic leadership at the* **organizational level**.

- *Continuous learning*- The organization generates immense opportunities for learning of all its members for continuous education and growth. Learning is inscribed into work, so that people can learn in course of their work. When people learn continuously, they appreciate the overall environment and use the gained knowledge to adapt to changing work practices (Yang, 2012). Continuous learning enables people to comprehend the impact of their work goals on the entire organizational performance (Yang, 2012; Song, Joo, & Chermack, 2009).

- *Inquiry and dialogue*- The organization implement strategies that supports questioning and raising of viewpoints and receiving feedback. Through inquiry and dialogue, people gain dynamic reasoning skills to express their views and boost their capacity to listen to and inquire other's perspectives. Inquiry and dialogue provides the opportunity for questioning, and appreciating others' thoughts, and nurtures openness to novel ideas, which ultimately helps to build a common intellect and foster a shared understanding among individuals (Marsick & Watkins, 2003).

- *Team learning*- A teamwork culture results in increased collaboration among individuals. Team learning boost team member's skills and allow them to find new alternative ideas or outlooks. When people collaborate, they learn how to work together in groups, and enhance an organization's capacity to achieve unified goals (Watkins & Marsick, 1993, 1996). Team interaction and team spirit is the foundation of building system vision that encourages learning through the process of knowledge interaction, integration and development of shared understanding (Senge, 1990; Gnyawali & Stewart, 2003).

- *Embedded system*- Dynamic systems are developed to acquire and disseminate information in the organization. A system to capture and share learning is required to create, maintain and integrate new information that might be used for improving organizational performance (Tippins & Sohi, 2003). Watkins and Marsick (1993) contend that organizations develop structures to accumulate the created knowledge and sustain it, which could prove effective during periods of environmental turbulence (Pokharel & Dudley, 2010). Moreover, these systems for capturing and sharing learning can lead to better organizational performance through people's access to pertinent information and critical knowledge (Song, Joo, & Chermack, 2009; Lipshitz, Friedman, & Popper, 2007). Embedded systems result in a collective organizational memory that can be utilized to acquire, store, retrieve and disseminate information widely within the organization (Argote, 1999).

- *Empowerment*- Employees are involved in creating, owning and implementing a shared vision of the organization. People are motivated to participate in the decision making and are held accountable for their decisions. Existent research demonstrate that empowering employees results in facilitating strong system connections (Marsick & Watkins, 2003; Senge, 1990; Yang, Watkins, & Marsick, 2004). Rather than being the domain of the top management team, leaders should involve employees at all levels in decision-making (Vera & Crossan, 2004; Weldy, 2009; Carter & Greer, 2013). Empowered employees are the best

means to connect the system with its environment as they can build authentic and lasting relationships (Lipshitz, Friedman, & Popper, 2007).

- *System connection*- The organization is capable to scan and connect with its internal and external environment. Often an organization suffers from inertia and finds it difficult to keep up with the changing environment (Senge, 1990; Lipshitz, Friedman, & Popper, 2007). System connection reflects global thinking, where organization is linked with the community that allow people to see the impact of their work on the entire organization.

- *Strategic leadership*- Strategic leaders shape, improve, and strategically use learning to achieve better results and move organization in new directions (Watkins & Marsick, 1996). The primary function of a strategic leader is to allocate organizational resources to employees and enhance their capabilities in such a way that it sets an organization at an advantageously strategic position (Marsick & Watkins, 2003; Carter & Greer, 2013).

1.2.2 Resilience

"More than education, more than experience, more than training, a person's level of resilience will determine who succeeds and who fails. That's true in the cancer ward, it's true in the Olympics, and it's true in the boardroom".

-Coutu, (2002)

Resilience derives its meaning from Latin word '*resiliens'*, meaning to jump back or recoil, with the base root words from *re+salire* to leap (Merriam-Webster's online dictionary, n.d.). The American Psychological Association (n.d.) defines resilience as "the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress such as family and relationship problems, serious health problems, or workplace and financial stressors." Originally, the concept of resilience emerged in the 1970s with its dominant focus on the clinical research context, and it was primarily the 1990s when the construct started to gain researchers attention in the organizational management domain (Robertson & Cooper, 2011). Hitherto, researchers have focused on various facets of resilience namely *personal resilience* (individual capacity to bounce back), *trait resilience*, *psychological resilience and ego resilience* (the dynamic capability to contextually modify the level of ego control), *career resilience* (extent to which individuals resists disruptions affecting work), and *emotional resilience* (performing consistently in a range of situations under pressure and adopting appropriate behavior).

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The resilience research embark its roots in the field of developmental psychopathology and psychological research, which chiefly focused on maladaptive behavior of children (Garmezy, 1974; Masten, Best, & Garmezy, 1990; Richardson, 2002; Tugade & Fredrickson, 2004). The psychological literature defined resilience as, "*the general capacity for flexible and resourceful adaptation to external and internal stressors*" (Klohnen, 1996). Research into psychological resilience started in the 1970s with Garmezy's study, which attracted researcher's attention towards the construct of resilience. In his landmark study, Garmezy (1970) examined the reasons of why some children of schizophrenic parents did not suffer psychological illness even while growing up with them (Bazelon, 2006). Based on the study findings, Garmezy (1991) emphasized that resilience is the effort made to restore or maintain personal equilibrium when facing threat. Drawing on Garmezy's pioneered study, research on resilience remained focused on children for several decades.

In the 1980s, research on resilience focused on personal qualities or traits of resilient children. Meanwhile, researchers treated resilience as a rare personality trait or capacity that support individuals to cope and adapt effectively to adverse situations (Jackson, Firtko, & Edenborough, 2007). Considering resilience as a personality trait, researchers coined the terms namely 'ego-resiliency' and 'psychological resilience', and defined resilience as the capability to help individuals to cope up with the adverse or traumatic experiences and exhibit positive experiences (Block & Kremen, 1996; Tugade & Fredrickson, 2004).

During the late 1980s and 1990s, the research on resilience moved from being confined to a set of stable individual traits acting as protective factors towards an outcome and dynamic process, dependent upon interactions between individual and contextual variables, which evolve over time (Zellars, Justice, & Beck, 2011). Rutter (1987) demonstrated resilience as a dynamic capability and thus shifted the focus from treating resilience as a personality trait towards the *'process'* orientation, wherein resilience is considered as a malleable phenomenon, which may be developed through events and material considerations (Buzzanell, 2010; Rutter, 2012). Luthar, Cicchetti, and Becker (2000) defined resilience as, "a dynamic process encompassing positive adaptation within the context of significant adversity".

Lately, researchers have looked beyond the dispositional view of resilience and emphasized on the *'developable and transformational nature'* of resilience (Rutter, 2012; Hodliffe, 2014; Winwood, Colon, & McEwen, 2013). This conceptualization identifies the most novel perspective

of resilience that goes beyond restoration and rather concentrates on the development of new abilities, which not only allow people to adapt to change but also flourish in the new environment (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). Luthans (2002b) defined resilience as, "the developable capacity to rebound or bounce back from adversity, conflict, and failure". This perspective was also supported by Waite and Richardson (2004) who defined resilience as, "the process and experience of being disrupted by change, opportunities, stressors, and adversity and, after some introspection, ultimately accessing gifts and strengths (resilience) to grow stronger through the disruption". The *'transformational perspective'* emphasizes that when people are faced with adverse or disruptive situations, resilience not only stimulate positive growth but also support them to reach a new state, which is more than recovering to the earlier level.

Although, the previous researchers focused chiefly on investigating the concept of resilience in the fields of child and clinical psychology (Richardson, 2002), the construct has lately attracted escalating attention of researchers in the field of organizational domain, who started to examine the applicability of resilience at workplace (Luthans, Avolio, Avey, & Norman, 2007). Primarily, the researchers devoted enormous efforts in examining the negative characteristics of humans and it was only after the call made by Seligman (2002) that researchers began to focus on positive psychology and the positive aspects of people and organizations. The principal argument of the positive psychology perspective is the inevitable need for organizations to embrace a more optimistic approach towards managing their human resources by building their psychological capital, rather than concentrating on the negative consequences of occupational stress (Avey, Luthans, & Jensen, 2009).

Luthans (2002a) first attempted to address this call and developed the multi-dimensional concept of psychological capital. The four components of psychological capital include *self-efficacy, hope, optimism, and resilience*. Luthans, Avey, and Patera (2008) postulated that psychological capital are states that are open to development, and therefore, prone to fluctuation over time.

1.2.2.1. Defining Resilience

There is no unified conceptualization of resilience to date (Herrman et al., 2011), since the construct has been studied across varied disciplines that resulted in a plethora of operational definitions (Rossi, Meurs, & Perrewé, 2013). This resulted in little consensus among researchers about the definition and meaning of the construct of resilience. Thus, the various definitions have resulted in somewhat

inconsistent perspectives of the concept of resilience; while some researchers advocated *resilience as an inherent trait, others have claimed it as a developable phenomenon. Conversely, while some researchers considered resilience as a process, others perceive resilience as an outcome; focusing on wellbeing; and highlighting benefits for individuals* (Grafton, Gillespie, & Henderson, 2010; Kabat-Zinn, 2005; Seibert, 2009). Although, these expansive definitions are contended to be both essential and applicable (Rutter, 1999), they rather offer partial direction for those who are looking to build programs for facilitating resilience among people working within stressful occupations.

Over the years, several definitions of resilience abound in the literature; however, by and large, existing definitions of individual resilience described the term in one of the following ways; **i)** *ability to adapt when faced with difficulties* (Galli & Vealey, 2008; Gillespie, Chaboyer, Wallis, & Grimbeek, 2007); **ii)** *fast recovery after an extreme event* (Friborg et al., 2005); **iii)** *ability to maintain a positive attitude in the face of adversity* (Fletcher & Sarkar, 2012; Hart, Wilson, & Hittner, 2006); **iv)** *capacity to bounce back from adversity* (Bekhet, Fouad, & Zauszniewski, 2011; Cameron & Brownie, 2010); and **v)** *development of individual psychological resources to manage extreme conditions* (Grant & Kinman, 2012; Shin, Taylor, & Seo, 2012; Skomorovsky & Stevens, 2013).

There is, however, general agreement that resilience is a contextual construct, i.e., a construct in which two conditions must occur (Luthans, Youssef, & Avolio, 2007; Luthar, Cicchetti, & Becker, 2000; Masten, Cutuli, Herbers, & Reed, 2009; Rolf & Glantz, 1999; Yates & Masten, 2004). **First**, *there must be substantial exposure to a discernable risk, trauma, or strain that poses a severe danger to positive adaptation or positive outcomes*. **Second**, *there must be an attainment of good outcomes or successful adaptation despite the exposure to risk, adversity, or stress*. Because of the multidimensional nature of resilience, the difficulty in assessing levels of risk or threat, the lack of robust evidence on resilience, and other extant criticisms; Luthar, Cicchetti, and Becker (2000) gave direction for further research and examination with regard to resilience. Luthar, Cicchetti, and Becker (2000) stressed the importance of clearly stating the terminology when referring to resilience. "The term resilience should always be used when referring to the process or phenomenon of competence despite adversity, while the term 'resiliency' should be used only when referring to a specific personality trait" (Luthar, Cicchetti, & Becker, 2000). Over the years, literature reflect various conceptualizations of resilience:

Wagnild & Young (1990) *emphasized that* resilience, "indicates an individual's emotional endurance and characterizes persons who exhibit courage and adaptability in the wake of crisis and life's misfortunes".

Gordon (1995) *advocated that resilience, "does not only include coping successfully with an adverse event but also thriving and, in future, being more competent under similar circumstances".*

Luthar, Cicchetti, & Becker (2000) *defined resilience as, "a dynamic process encompassing positive adaptation within the context of significant adversity".*

Luthans (2002b) *defined resilience as, "the developable capacity to rebound or bounce back from adversity, conflict, and failure".*

Masten & Reed (2002) *viewed resilience as, "a class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk".*

Fredrickson, Tugade, Waugh, & Larkin (2003) *defined resilience as, "a relatively stable personality trait characterized by the ability to bounce back from negative experience and by flexible adaptation to the ever-changing demands of life".*

Rutter (2006) *emphasized that resilience, "is a psychological resource that is necessary to buffer against stress and allow the individual to adapt to stressful and dynamic environments".*

Youssef & Luthans (2007) *defined resilience as, "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility".*

Gillespie, Chaboyer, Wallis, & Grimbeek (2007) *defined resilience, "as a dynamic process which can be learned or taught as an individual's ability that support them to access resources to cope with and recover from adversity and adapt effectively to stress in the workplace".*

Rogerson & Emes (2008) *viewed resilience as, "the ability to persevere and thrive in the face of exposure to adverse situations".*

Grafton, Gillespie, & Henderson (2010) *viewed resilience as, "an accessible inner strength or resources within the individual that enables a positive stress response that can be enhanced or supported by external resources".*

Carmeli & Markman (2011) *suggested that resilience, "allow endurance, or even thriving of an individual or organization, regardless of being strained to, or past, breaking point".*

Southwick & Charney (2012) *viewed resilience as, "the process of adapting well in the face of adversity, trauma, tragedy, and even significant sources of threat".*

Taylor & Reyes (2012) defined resilience as, "the capacity to rise above demanding situations; adjust well than anticipated in the face of major adversity; and recover from difficulty and overcome traumatic conditions in one's life".

Winwood, Colon, & McEwen (2013) defined resilience as, "the process involved in assigning, managing, and adjusting to substantial sources of strain or trauma by facilitating the individual's capacity for adaptation and bouncing back in the face of adverse situations".

Cooper, Flint-Taylor, & Pearn (2013) defined resilience as, "bouncing back from setbacks, combined with remaining effective in the face of tough demands and difficult circumstances, and growing stronger in the process".

Pidgeon et al. (2014) conceptualized resilience as, "the capability to survive and bounce back in the face of adverse and overwhelming stressors".

Pines et al. (2014) defined resilience as, "the individual's ability to adapt to adversity, retain equilibrium, exhibit control upon the environment and remain positive".

Lian & Tam (2014) defined resilience as, "the capacity to withstand, regulate, and cope with ongoing life challenges and succeed in maintaining equilibrium despite negative effects from stress".

Waddell (2015) viewed resilience as, "the person's capability to adapt to adversity and sustain or bounce back to equilibrium in response to the traumatic situations".

1.2.3 Employee Resilience

With the advent of positive psychology and positive organization behavior, both the academicians and practitioners became aware of the significant benefits of resilience and its implications in organizational domain (Harvey, Blouin, & Stout, 2006). The existent research demonstrates the substantial relationship of resilience with individual's performance at workplace (Youssef & Luthans, 2007). Underpinning the developmental perspective of resilience; Wang, Cooke, and Huang (2014) suggested that employee resilience should be viewed as a set of abilities and attributes that could be nurtured through implementation of suitable interventions.

Lately, the concept of *'employee resilience'* is receiving burgeoning interest of researchers in workplace context and have been examined for its significant consequences for both the individuals and organizations (e.g., Cooper, Liu, & Tarba, 2014; Kuntz, Connell, & Näswall, 2017; Robertson & Cooper, 2011; Robertson, Cooper, Sarkar, & Curran, 2015). Nevertheless, the organizational scholars have largely ignored the significance of resilience at workplace. Still, the existent literature offers scarce empirical evidence of the organization's role in developing their employees' resilience. However, the rising demand for a flexible and adaptive workforce make it crucial for organizations

to focus on developing their employees' mental strength for sustaining in the current competitive environment. Developing resilience at workplace has become a necessity for organizations to support their employees to cope up with adversity and adapt successfully. Given this fact, there is an inexorable need for contemporary organizations to focus on employee-level model of resilience that consider it as a developable resource, rather than an individual's stable personality trait. Kuntz, Näswall, and Malinen (2016) defined employee resilience as, "*the capacity of employees to utilize resources in order to continually adapt and flourish at work, even when faced with adversity*". This study advocates that employee resilience is not predicated on individual's inherited personal resources, rather it can be fostered by the availability of adequate resources from the organization. This resonates with the contemporary outlook on resilience, which highlights the developable and growth-oriented nature of resilience and advocates that high levels of resource availability would elicit enhanced levels of employee resilience (Kuntz, Connell, & Näswall, 2017).

A glance at the existent literature shows that the individual resilience literature is largely guided by the prevalent epitome that underpins resilience as the 'capacity to successfully adapt to adversity' (Fletcher & Sarkar, 2012; Stephens et al., 2013). Although, over the years researchers have departed from '*a restoration of equilibrium perspective*' of resilience towards a '*learning and continual growth orientation*' (Youssef & Luthans, 2005). Yet, resilience is mainly argued as signaling responsiveness to adverse situations, and still there is scant research investigating the 'developmental perspective' of resilience, and its potential to aid individuals to learn and grow in response to severe challenges at workplace. Lately, research has shown that resilience as a coping ability can be developed throughout one's lifespan (DiCorcia & Tronick, 2011). Consequently, scholars call for research that move beyond the traditional adversity responsiveness approach towards the more recent *'capability development and growth perspective'* of resilience (Van Der Vegt, Essens, Wahlström, & George, 2015).

Echoing a similar vein, Wolfson and Mulqueen (2016) advocated that studying resilience as a 'developable capability' is more productive as it inspires both the organizational leaders and employees to take responsibility for enhancing their individual and organizations' resilience. The authors emphasized that researchers should focus on 'context' or the environmental factors while studying resilience that might play a vital role in building resilience. Certainly, the contemporary organizations that will design and implement strategies for building an adaptive and resilient

workforce will reap competitive benefits in the future. Thus, rather than designing targeted resilience interventions for employees, which may prove ineffective with limited transferability, organizations need to embed working culture that contributes to the development of resilience (Varker & Devilly, 2012). This viewpoint signals a dire necessity for organizations to change their outlook towards designing a supportive workplace culture for resilience development.

Winwood, Colon, and McEwen (2013) advocated that incessant change, high workloads, and complex and turbulent working environments are increasingly common, thus, resilience is not just about better coping. It is being the best you can be in the current working environment, and thus, needs regular review and maintenance. The current study is based on the conceptualization of resilience proposed by Winwood, Colon, and McEwen (2013), who developed 'Resilience at Work' (RAW) scale for measuring employee resilience and proposed its seven components:

- *Living authentically:* This factor connotes an individual's ability to hold onto his personal beliefs and know about his personal strength and exhibit higher levels of emotional awareness.
- *Finding your calling:* This component basically represent an individual's desire to seek work that is meaningful, and offers a sense of belonging and fit suitably with one's core values and opinions.
- *Maintaining perspective:* This factor represent an individual's capability to bounce back from hurdles, endure a solution focus, and cope up with negativity.
- *Managing stress:* This factor emphasizes on utilizing workplace and life routines that support an individual to manage stressful situations every day, sustain work life balance, and ensure relaxation time.
- *Interacting cooperatively:* This factor indicates an individual's ability to seek feedback, guidance, and support at workplace, as well as provide support to other members.
- *Staying healthy:* This component denotes a person's efforts for maintaining a good level of physical fitness and a healthy diet.
- *Building networks:* This factor represents a person's ability to develop and maintain personal supportive networks at workplace and outside the workplace.

In this study, resilience is not construed as a trait or an attribute of an individual, but instead characterized as a dynamic capacity that can be developed through interaction between the individual

and his or her working environment. The 'developmental perspective' of resilience draws on the following doctrines:

(a) employee resilience represent an individual's ability which can be fostered by employing resources that assist in continuous adaptability and flourishing at work, and **(b)** employee resilience can be manifested in both stable and adverse conditions, i.e., it not only enable individuals to cope up with adversity and crisis but also support them to seek opportunities for continual growth and development in steady environments as well. Thus, developing resilience among employees will not only support them in adverse situations, but will also substantially assist them under favorable conditions.

Thus, building on and extending beyond current definitions, the current study posits an operational delineation of employee resilience. This study conceptualize employee resilience as, *'an individual's capacity to emerge from experiences of adversity, adapt effectively to the workplace stressors and stay healthy, bounce back and learn from unanticipated setbacks, remain prepared for future demands proactively and demonstrate increased competence, and professional growth'*. This study assert that there is a vital opportunity for organizations to develop their employees' resilience by nurturing a learning organization culture.

1.2.4 Work Engagement
"Engagement is found in the employee's mind, heart, and hands."

-Mastrangelo (2009)

Work engagement has emerged as a significant concept within the field of organizational and positive psychology (Seligman & Csikszentmihalyi, 2000), and has become a popular term among human resource management and organization development professionals (Bakker, Demerouti, & Sanz-Vergel, 2014; Quiñones, Van den Broeck & De Witte, 2103; Ghadi, Fernando, & Caputi, 2013). Macey, Schneider, Barbera, and Young (2009) indicated that, "rarely has a term resonated as strongly with business executives as work engagement has in recent years". Perrin's Global Workforce Study (2003) defined work engagement as the, "employee's willingness and ability to help their company succeed", while the Gallup organization defined engagement as the, "involvement with and enthusiasm for work" (cited in Kompaso & Sridevi, 2010). MacLeod and Clarke (2009) further emphasized that engagement is a workplace approach that ensure employees

are committed to the organization's goals and core values, involved in its success, and at the same time able to enhance their own sense of satisfaction and well-being (cited in Alfes, Shantz, Truss, & Soane, 2013).

The construct of work engagement was originally pioneered by Kahn (1990), and was further operationalized by Maslach and Leiter (1997). The seminal work of Kahn (1990) conceptualized work engagement as personal investment (physical, psychological, and emotional) in work effort. Kahn (1990) emphasized that engaged employees' exhibit physical, cognitive and emotional involvement in their work roles, and experience a sense of purpose and meaningfulness for investing in their jobs. Moreover, employees perceive a sense of trust and security at work, i.e., psychological safety and a sense of availability when they are offered with the physical and psychological resources required for carrying out their jobs. Further, Maslach and Leiter (1997) categorized work engagement as the polar opposite of burnout (fatigue, cynicism and inefficiency), characterizing it in terms of high vigor, engrossment and efficiency, which can be measured using the 'Maslach Burnout Inventory' (MBI) (Maslach & Jackson, 1981).

Primarily, the research field is divided over the concept of engagement and its measurement. Previous researchers focused largely on the burnout literature and considered work engagement as the antipode or the exact opposite of burnout (Bakker & Demerouti, 2008). On the contrary, Schaufeli, Salanova, González-Romá, and Bakker (2002) rebutted this approach and argued that engagement cannot be merely treated as the positive antipode to burnout, rather it is a separate and a distinct concept, which should be measured through its own unique scale. Subsequently, addressing this fact, Schaufeli, Salanova, González-Romá, and Bakker (2002) developed the 'Utrecht Work Engagement Scale' (UWES) to measure work engagement and defined it, "as a state of mind characterized by vigor, dedication, and absorption".

1.2.4.1 Defining Work Engagement

Over the years, the academic scholars and organizational practitioners postulated various conceptualizations of work engagement. While there is a disagreement about the precise definition of work engagement, there is a general agreement about the essential characteristics of engagement. *First,* work engagement is, "a positive and energized work-related motivational construct" (Albrecht, 2010). *Second,* engagement is a mindset of readiness and willingness to give one's best

to one's work and organization (Albrecht, 2010; Meyer, 2014). ***Third,*** engagement makes a contribution to the bottom line because it engenders positive job outcomes and customer satisfaction (Karatepe, 2013). The various conceptualizations proposed for defining work engagement are mentioned below:

- ***Schaufeli, Salanova, González-Romá, & Bakker (2002)*** *viewed work engagement as, "a persistent emotional cognitive state that is not focused on any specific object, event, individual, or behaviour".*
- ***Robinson, Perryman, & Hayday (2004)*** *defined work engagement as, "a positive employee attitude towards the organization and its values, involving awareness of business context, and work to improve job and organizational effectiveness".*
- ***Saks (2006)*** *defined work engagement as, "a distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance".*
- ***Bakker & Demerouti (2008)*** *defined work engagement as, "a positive, affective-motivational, work related state of mind that is characterized by vigor, dedication, and absorption".*
- ***Shuck & Wollard (2010)*** *defined work engagement as, "an individual employee's cognitive, emotional, and behavioural state directed towards desired organizational outcomes".*
- ***Fasoli (2010)*** *emphasized that work engagement connotes, "an interaction between the individual and the environment as a synergistic relationship that promotes a psychological commitment to the work".*
- ***Schaufeli & Bakker (2010)*** *emphasized that work engagement is characterized by a, "work related positive state of mind, which in turn may promote persistence and dedication to work".*

The present research is guided by Schaufeli, Salanova, González-Romá, and Bakker (2002) conceptualization of work engagement that addressed three components namely physical, emotional, and cognitive, and expanded its definition to "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption". Work engagement includes three domains:

- *Vigor* is the physical component of engagement that is demonstrated by high levels of energy, mental resilience, investment of effort, and persistence even when faced with difficulties;
- *Dedication* is the emotional component and is evident when employees experience a sense of significance, fervour and pride in their work; and
- *Absorption* represents the cognitive component, when employees become fully focused and happily engrossed in one's work-even to the point of losing track of time (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004).

Schaufeli, Salanova, González-Romá, and Bakker (2002) conceptualization of work engagement draws on the pivotal 'Job Demands-Resources model' (Bakker & Demerouti, 2007). This suggests that work engagement is influenced by both the personal and job resources. 'Job resources' denotes the physical, social or organizational characteristics of the job (e.g., autonomy, feedback, social support, and learning opportunities) that can diminish job demands (e.g., workload, stressful demands), and support employees to accomplish their work goals, and stimulate development. 'Personal resources' represents the individuals' positive self-evaluations and their ability to control and influence the environment effectively (e.g., hope, self-esteem, resilience and optimism) (Bakker & Demerouti, 2008). Moreover, Kahn's assertion that psychological resources are essential for engagement supports the concept that resilience could be essential for work engagement and indeed supports the concept of resilience as a capacity (Fletcher & Sarkar, 2012; Kantur & İşeri-Say, 2012; Mafabi, Munene, & Ntayi, 2012; Moenkemeyer, Hoegl, & Weiss, 2012).

Over the years, scholars have diverged opinions on whether to describe engagement in terms of a physiological state, behavior, or an attitude (Macey & Schneider, 2008). Echoing this fact, Macey and Schneider's (2008) focused on trait engagement, state engagement and behavioral engagement, and conceptualized psychological engagement (trait and state) as antecedents of behavioral engagement. The authors illustrated elements of '*trait engagement*' namely 'positive work and life outlook, proactive personality, autotelic personality, trait optimistic affect and conscientiousness'. '*State engagement*' elements included 'feelings of vitality, absorption, satisfaction, engrossment, commitment and autonomy'. While, '*behavioral engagement*' elements encompassed 'organizational citizenship behavior, personal initiative, and adaptiveness'.

Furthermore, academic scholars and practitioners debated on the existence of engagement concept, and argued that rather than being distinctive, work engagement shows similarity with other recognized constructs such as job satisfaction, organizational commitment, and job involvement (e.g., Macey & Schneider, 2008; Byrne, Peters, & Weston, 2016; Christian, Garza, & Slaughter, 2011). Previous research related to work engagement primarily focused on job satisfaction, a concept that is related to-but not equivalent to-work engagement. Job satisfaction is an overall subjective attitude and evaluation of the work provided and the workplace, whereas engagement is a closely aligned concept that is divided into personal, work, and employee engagement and burnout (Jenaro, Flores, Orgaz, & Cruz, 2011). Also, work engagement is theoretically distinct from the concepts of job involvement and organizational commitment. Both the concepts of job involvement and organizational commitment signifies psychological identification with the work or to the organization, while work engagement indicates the energetic state of involvement with the work itself (Schaufeli & Bakker, 2010). Furthermore, researchers highlighted that job satisfaction, organizational commitment, and job involvement constructs infer only the investment of one aspect, i.e., either affective or cognitive dimension of oneself into a job or organization. However, work engagement signifies the investment of several elements, i.e., physical, emotional, and cognitive aspects into performing the work roles (Rich, LePine, & Crawford, 2010; Christian, Garza, & Slaughter, 2011). Thus, job satisfaction, organizational commitment, and involvement may be considered as facets of work engagement, but cannot be treated as conceptually similar with the concept.

In recent years, work engagement resonated strongly among both academic scholars and business practitioners due to its significant consequences (Macey, Schneider, Barbera, & Young, 2009). Numerous studies offered empirical evidences supporting the significant impact of work engagement on employees' performance and commitment (Breevaart, Bakker, Demerouti, & Van den Heuvel, 2015; Quiñones, Van den Broeck, & De Witte, 2013); and employees attitude and discretionary workplace behaviors (Babcock-Roberson & Strickland, 2010; Bakker & Demerouti, 2008). Additionally, research has shown that engaged employees frequently experience positive emotions and better health as compared to non-engaged employees. In addition, engaged employees exhibit enhanced utilization of their job and personal resources, as well as spill over their engagement to other people at workplace (Bakker & Demerouti, 2008).

1.3 RESEARCH GAPS

First, in spite of the demand for a highly resilient and engaged workforce in existent multifaceted operative milieu of service organizations, particularly IT sector, the general understanding of the impact of learning organization on employee resilience and work engagement is scant in literature.

Second, literature demonstrates numerous studies exploring the concepts of learning organization (e.g., Jain and Moreno, 2015; Akhtar, Arif, Rubi, & Naveed, 2011), resilience (Luthar, Cicchetti, & Becker, 2000; Masten, 2001; Wagnild, 2009), and work engagement (Chaudhary, Rangnekar, & Barua, 2012; Agarwal, 2014; Bhatnagar, 2012); yet literature shows minimal research examining the nexus between learning organization, employee resilience and work engagement, which calls for further investigation.

Third, despite the paramount growth of positive psychological approaches and its application at workplace, the overall understanding of the role of employee resilience in influencing work engagement is missing, thus, there remains considerable room for investigating the underlying mechanism between these constructs.

Fourth, the study investigates the mediating role of employee resilience on the liaison between learning organization and work engagement, which is missing in the existent literature.

Fifth, the construct of employee resilience may prove crucial in explaining the holistic mechanism underlying the relationship between learning organization and work engagement. Notably, a highly engaged workforce is the much touted outcome that contemporary organizations are looking for. Employee resilience, thus, might play a crucial role in constructing the pavement for developing a highly engaged workforce, wherein employees can not only utilize their personal resources to confront new challenges but can also find new ways to handle the demanding situations at workplace. This furthers the need to enhance understanding of the role of learning organization in generating employee resilience and work engagement.

Last, there is a dearth of research till date that investigated the role of learning organization culture in fostering employee resilience and work engagement.

Conclusively, in the wake of ceaseless turbulent environment, it is imperative for organizations to gauge and develop learning organizations to develop employee resilience for enhancing work engagement. By exploring the role of learning organization in influencing employee resilience and work engagement, the present study draws attention towards the vital role of learning organization in facilitating the development of employee resilience and advocates that employee resilience must be seen as a behavioral capacity that in turn might contribute to enhanced work engagement. The present study put forth that employee resilience is not only needed in crisis or emergency situations but is also effective for day to day working as well. This study is also potentially valuable to human resource managers and counsellors, since it offers crucial insights for developing employee resilience and work engagement by cultivating a learning organization culture.

1.4 Research Questions

1. Do learning organizations impact employee resilience and concurrently augment work engagement?

2. Does employee resilience influence work engagement?

3. Does employee resilience mediate the relationship between learning organization culture and work engagement?

1.5 Research Objectives

In particular, the objectives of the dissertation are mentioned below:

1. To examine the underlying mechanism of the impact of learning organization culture on employee resilience and work engagement.

2. To examine the impact of employee resilience on work engagement.

3. To examine the mediating effect of employee resilience on the relationship between learning organization culture and work engagement.

1.6 Significance of the study

This study offers significant contributions to both academic literature and organizational practitioners. In the wake of work environment characterized by ongoing transformational change, technological advancements, shortage of knowledge professionals, and increasing employees' turnover rates, organizations are necessitated to seek innovative ways to optimize their human strength and boost work engagement. Though, there is an abundance of literature to guide

practitioners on how to boost work engagement; the current study argues that following these prescribed elements, in itself, are not sufficient to support staff to cope successfully with change and in turn stimulate their engagement. Today's workplace faces an unprecedented 'chaotic environment', which demands continual learning, characterized by action, reflection, and "learning while you are doing" (Watkins & Marsick, 1993). The current study posits that IT employees, caught in the daily stress and complexity of the incessant demanding environment require high resilience to cope effectively and adapt to workplace challenges (Jackson, Firtko, & Edenborough, 2007). A 2010 study by Accenture found that "more than 72% of corporate leaders around the world agreed that employee resilience is extremely crucial for survival of organizations", thus, signaling the prerequisite for fostering employee resilience (cited in Pincott, 2014). However, despite the calls for examining the concept of resilience in organizational domain, research still lacks in recognizing strategies for developing resilience among employees (Britt et al., 2016; Conley, Clark, Griek, & Mancini, 2016; Estrada, Severt, & Jiménez-Rodríguez, 2016).

The current study posits that organizations can assist their employees facing stressful situations at workplace by embedding learning organization culture, which would provide enabling conditions for the development of resilience among employees. Research has shown that employee resilience is an adaptive and resource-utilizing capability, which support employees to handle challenges and adversity more effectively at the workplace (Hodliffe, 2014). Moreover, resilience enhances an individual's capacity to adapt and flourish in the face of continual change and cataclysm, thus, it becomes essential for organizations to advance their understanding of the factors that facilitate the development of resilience among employees (DuBrin, 2013).

This study addresses this crucial gap by adopting a dynamic view of resilience and emphasize that employee resilience can be built over time. Through the investigation of the liaison between learning organization, employee resilience and work engagement, the current study posit ways for organizations to enhance their employees' resilience to not only thrive in the unpredictable work environment but also enhance their engagement levels. The study also advances the literature of learning organization, resilience in workplace context and broadens the literature on antecedents to work engagement. Till date, the constructs of learning organization, employee resilience, and work engagement have not been researched conjointly in the literature.

The unique benefit of this research is to identify and gain a better understanding of the impact of learning organization on employee resilience and work engagement. The current study advocates that resilience is an active, developable capacity that organizations can foster among their employees (Jackson, Firtko, & Edenborough, 2007; Luthar & Cicchetti, 2000). This study offers crucial information to practitioners by identifying the key role of learning organization culture in facilitating employee resilience and work engagement. Thus, the significant relationships identified between learning organization culture, employee resilience, and work engagement would provide IT leaders and human resource practitioners with crucial strategies for developing a resilient and engaged workforce.

1.7 Thesis structure

The thesis is organized into five chapters. *Chapter 1* describes the background of the study along with delineating the purpose and rationale of the study. It introduces the conceptualization of the study variables and also presents the proposed model for the conceptual framework of the study. The chapter lastly demonstrate the significance of the study along with the contributions. *Chapter 2* offers a review of literature on study variables focusing majorly on the linkages and the underlying relationships between them. Alongside, hypotheses were also developed in this chapter. *Chapter 3* explains the research design of the study, including study objectives and hypotheses, and participants and sampling procedure. It also provides information on the instruments used to measure the constructs and details about the statistical tools and techniques used for the analysis. Research methodology embarked for data analysis along with their interpretation are presented in *Chapter 4*. This chapter also entails the discussion of the study findings. Lastly, *Chapter 5* provides the concluding remarks while highlighting the theoretical and practical contributions of the study to advance theory and practice.

Chapter 2

Review of Literature

2.1 Overview of the Chapter

This chapter aims to unveil the existent literature base of the focal constructs of the study, i.e., learning organization, employee resilience, and work engagement and the underlying relationships between these constructs. This chapter discusses the literature that provide support to the study's framework postulated in *Figure 1.1*, representing the relationship between learning organization, employee resilience, and work engagement.

The literature review is divided into two research sections. The *first section* illustrate the existent literature on the constructs of learning organization, employee resilience, and work engagement, focusing on their antecedents and outcomes. Furthermore, the *second section* demonstrate research studies that affirmed the postulated relationship among the three research constructs-learning organization, employee resilience, and work engagement.

2.2 Learning Organization (LO)/ Learning Organization Culture (LOC)

The concept of 'learning organization' echoed among researchers since the early twentieth century, however, it garnered significant attention of both the academicians and practitioners with the advent of Senge's seminal book "The Fifth Discipline" (1990). Lately, the concept has been widely signposted as a prescription for enhanced organizational performance and sustainable competitiveness (Jamali, Sidani, & Zouein, 2009; Burkett, 2017).

A number of research studies have acknowledged the fact that learning organization culture is crucial for innovation and organizational performance (Park, Song, Yoon, & Kim, 2014; Tohidi, Seyedaliakbar, & Mandegari, 2012; Ussahawanitchakit, 2008). Indeed, some scholars advocated learning organization culture as the quintessential element for sustaining competitive advantage in response to a turbulent business environment (Epstein, 2008; Goh & Ryan, 2008; Weldy & Gillis, 2010). Given this fact, there have been an upsurge interest in the construct of learning organization; providing the concept with theoretical, empirical, and practical support (Chawla & Lenka, 2015; Hatane, 2015; Lau, McLean, Lien, & Hsu, & Lien, 2016; Malik & Garg, 2017a; Salehzadeh et al., 2014; Song, Lim, Kang, & Kim, 2014).

2.2.1 Antecedents and Outcomes of Learning Organization (LO)

From its genesis till date, various studies have been conducted on the concept of 'learning organization' at both the academic level (Chawla & Lenka, 2015; Ponnuswamy & Manohar, 2014), and organizational level (Garvin, Edmondson, & Gino, 2008). Previous research studies revealed that there is a positive relationship between learning organization and various organizational outcomes. A glance at the literature reflect that learning organization had a significant impact on organizational performance and organizational innovativeness (Hussein, Mohamad, Noordin, & Ishak, 2014; Pokharel & Choi, 2015); job satisfaction (Dekoulou & Trivellas, 2015; Chang & Lee, 2007); organizational commitment (Atak & Erturgut, 2010; Tseng, 2010); and firms' financial performance (Sahaya, 2012). Notably, even though existent literature reveal significant associations between learning organization and several favorable organizational outcomes (Song, Chermack, & Kim, 2013), yet there is minimal research investigating the impact of learning organization on employee resilience and work engagement.

Over the years, researchers analyzed various elements and factors for building a learning organization (e.g., Chawla & Lenka, 2015; Lazăr & Robu, 2015; Örtenblad, 2015; Shipton, Zhou, & Mooi, 2013; Wen, 2014). A systematic review of literature reflect several studies which propounded the *'building elements'* for developing learning organizations in various contexts, for instance, Indian context (Chawla & Lenka, 2015); Chinese context (Wen, 2014); Lebanese context (Jamali & Sidani, 2008); and Western context (Örtenblad, 2015; Shipton , Zhou & Mooi, 2013; Wilson & Beard, 2014). Some of the common elements suggested were namely vision clarity, learning environment, leadership promoting learning and empowerment, supporting organizational structures, reward and acknowledgement, opportunities for growth and development, and enhanced employee capabilities.

Shin, Picken, and Dess (2016) postulated '*five critical elements'* central to the development of a learning organization including *establishing and communicating a clear sense of direction and purpose; empowerment of employees at all levels; acquirement and dissemination of knowledge; collection and assimilation of external information and challenging the status quo; and facilitating creativity.*

Wen (2014) recommended '*ten strategies'* for constructing a learning organization in Chinese organizational context. These comprised of paradigms namely *learning of leaders; delivering*

mission; encouraging ambitions and overcome self-transcendence; organizational capacity; learn at work and put learning into practice; eliminate the obstacles of learning; develop a dynamic model of learning -research-innovation; promote sustainable development; implement evaluation; and conduct trial implementation.

Garvin, Edmondson, and Gino (2008) proposed '***three building blocks'*** for developing a learning organization which include '*a supportive learning environment, concrete learning processes and practices, and leadership behavior*' that subsequently strengthen learning. According to the authors, these three building blocks are essential for enhancing employee skills. Moreover, Jamali and Sidani (2008) recognized ***'five significant attributes'*** of learning organization in Lebanese organizational context that include *employee involvement; learning climate; efficient employee growth; continual innovations; and reward systems for learning.*

Furthermore, a glance at the literature suggests that a substantial amount of the existent research focused on investigating the association between *learning organization and organizational performance*. Majority of studies have studied the concept of learning organization and its application to business organizations in Western context (for e.g., Örtenblad, 2015; Wilson & Beard, 2014; Hannah & Lester, 2009). The extant literature suggests that learning organizations enhance organizational performance, and thereby positively influence organizational effectiveness (Brown & Brudney, 2003; Ellinger, Ellinger, Yang, & Howton, 2002; Perkins et al., 2007; Weldy, 2009). Primarily, Ellinger, Ellinger, Yang, and Howton (2002) in their study of 208 manufacturing firms identified that learning organization leads to improved financial performance.

Pokharel and Choi (2015) examined the relationship between learning organization dimensions (i.e., learning opportunities, inquiry and dialogue, team learning, embedded system, empowerment, system connection, and strategic leadership), and organizational performance in Virginia. The results revealed that the learning organization dimension, chiefly *'system connection'* exerts a significant impact on organizational performance. Moreover, the study results emphasized that two learning organization dimensions namely *'embedded system and strategic leadership'* did not show noteworthy association with organizational performance.

Shipton, Zhou, and Mooi (2013) described that learning organizations perform effectively than their less learning-focused counterparts. The authors conducted an expansive study for investigating

the relationship between *learning organization and organizational performance* by collecting sample from around 6000 organizations across 15 countries. The study also examined the mediating effect of innovation on the relationship between learning organization and organizational performance. The research findings demonstrated significant effects of learning organization on both innovation and performance. Also, the study results revealed that innovation fully mediated the relationship between learning organization and organizational performance.

Wetherington (2010) examined the relationship between *learning organization dimensions* (i.e., learning opportunities, inquiry and dialogue, team learning, embedded system, empowerment, system connection, and strategic leadership), *and several measures of performance* (financial, knowledge, and mission performance).The study was conducted among 603 chief executive officers working in non-profit organizations in the United States. The study confirmed the relationships between all the seven dimensions of learning organizations and financial, knowledge, and mission performance.

Davis and Daley (2008) investigated the relationship between *learning organization and the performance variables* (i.e., return on investment, return on equity, earnings per share, net income per employee, and percentage of sales from new products). The study findings indicated that learning organization was positively associated with all the performance variables.

Furthermore, a glance at the literature shows ***significant consequences of learning organization*** apart from organizational performance. For instance, Dekoulou and Trivellas (2015) investigated the impact of *learning organization on job satisfaction and job performance* among employees working in Greek advertising sector. Moreover, Tabatabaei and Ghorbi (2014) studied the impact of learning organization dimensions on employees' performance in Iran. Hussein, Mohamad, Noordin, and Ishak (2014) investigated the relationship between learning organization, organizational performance, and organizational innovativeness in Malaysian public institutions of higher education.

Atak and Erturgut (2010) investigated the relationship between *learning organization and organizational commitment*, and further determined which factor of organizational commitment, i.e., emotional commitment, normative commitment, and continuation commitment showed the most significant impact on learning organization. The study results revealed that organizational commitment factors of emotional commitment and continuation commitment showed positive effects on learning organization, while normative commitment showed no effect on learning

organization. Besides, the results demonstrated that emotional commitment showed the most significant impact on learning organization.

Moreover, research establishes learning organization as a preeminent culture for healthcare organizations. Several studies underpinned the significance of *learning organization for nursing practice* (for instance, Baird, 2012; Sweet, 2012; Gagnon et al., 2015). Sweet (2012) explored the relationship between *psychological capital components (i.e., hope, self-efficacy, optimism, and resilience), and learning organization dimensions* (i.e., learning opportunities, inquiry and dialogue, team learning, embedded system, empowerment, system connection, and strategic leadership) in a community medical center. The results revealed that all the seven dimensions of learning organization showed significant relationship with the three components of psychological capital, i.e., hope, self-efficacy, and optimism; whereas resilience showed a positive relationship with only two dimensions of learning organization, i.e., continuous learning and inquiry and dialogue.

Baird (2012) determined the mediating effects of the psychological needs (i.e., competence, autonomy, and relatedness) on the relationship between *learning organization dimensions* (i.e., learning opportunities, inquiry and dialogue, team learning, embedded system, empowerment, system connection and strategic leadership), *and affective and normative organizational commitment* among the sample of nurses working in the United States. The findings demonstrated that autonomy and relatedness partially mediated the relationship between the learning organization dimensions and both affective and normative organizational commitment. Correspondingly, Estrada (2009) conducted an empirical study among nurses working in six acute care hospitals to investigate the relationship between nurses' perceptions of learning organization and evidence-based practice beliefs. The results revealed a significant relationship between learning organization and evidence-based practice beliefs.

Additionally, researchers have also acknowledged the significance of learning organization culture for manufacturing industries (e.g., Awasthy & Gupta, 2011; Hatane, 2015; Lee, Ooi, Sohal, & Chong, 2012; Choi, Kim, & Yoo, 2016). For instance, Hatane (2015) examined the impact of learning organization on financial performance in manufacturing and non-manufacturing companies in Indonesia. Also, the study evaluated the intervening role of employee satisfaction and employee performance on the relationship between learning organization and financial performance. The study found the direct and indirect influence of learning organization on financial performance. The results

demonstrated that employee satisfaction and employee performance played a significant role in strengthening the influence of learning organization on firms' financial performance.

Lee, Ooi, Sohal, and Chong (2012) investigated the linkage between *Total Quality Management (TQM) practices (i.e., process management, human resource focus, leadership, information and analysis, strategic planning, and customer focus), and learning organization* in the manufacturing sector of Malaysia. The findings reflected that four TQM practices namely process management, human resource focus, leadership and information, and analysis showed a positive relationship with learning organization; whereas two TQM practices namely strategic planning and customer focus showed no relationship with learning organization.

In addition, Jamali, Sidani, and Zouein (2009) reviewed the various measurement instruments for measuring the construct of learning organization. The authors suggested that the Marsick and Watkins (1999) 'Dimensions of Learning Organization Questionnaire' (DLOQ) exhibits comprehensiveness, depth, and validity, and integrates significant characteristics of learning organizations (e.g., continuous learning opportunities, inquiry and dialogue, team learning, empowerment, embedded systems for sharing knowledge, systems for connecting with external environment, and strategic leaders for leading learning). Furthermore, the authors administered the DLOQ scale to gauge progress towards learning organizations in the banking and IT sectors of Lebanon. The authors found that both the sectors gave importance to *individual level (i.e.,* continuous learning opportunities and inquiry and dialogue*), and organizational level dimensions of learning organization* (i.e., empowerment, embedded system, system connection, and strategic leadership). The results revealed that banking companies ranked highest on strategic leadership and system connection (organizational level) dimensions of learning organization, followed by individual level dimensions including promoting inquiry and dialogue, and creating continuous learning opportunities. Whereas, the banking companies gave much lesser importance to *team learning (group level)*, *empowerment and embedded system (organizational level) dimensions of learning organization*.

Notably, the study findings showed that empowerment (organizational level dimension of learning organization) was rated as one of the lowest rated dimensions in the IT sector, followed by embedded system (organizational level). Conversely, the IT sector gave the highest significance to the leadership dimension (organizational level), and the promotion of inquiry and dialogue

(individual level dimension of learning organization). The authors reported that IT firms in Lebanon have made considerable progress towards the incorporation of learning organization culture as compared to the banking companies. The study results showed that IT companies in Lebanon are making systematic efforts at connecting the organization to its environment and providing strategic leadership.

Furthermore, studies suggest that investing in learning organization facilitate the enhancement of commitment levels of employees (Bhatnagar, 2007; Balay, 2012). Echoing a similar perspective, Tseng (2010); and Atak and Erturgut (2010) reported that learning organization culture positively influence employees' organizational commitment. Additionally, research shows that learning organization offer leaders with learning opportunities that enhance their ability to attain organizational effectiveness, better communication skills, increased self-confidence, creativity, shared vision and improved management skills (Salehzadeh et al., 2014).

Moreover, Dekoulou and Trivellas (2015) explored the *learning organization relationship with two primary work outcomes, i.e., job satisfaction and job performance* in the Greek advertising sector. The authors conducted a questionnaire survey among the sample of 251 staff members working in Greek advertising agencies. The study findings revealed that learning organization significantly influences both employee job satisfaction and job performance, while job satisfaction played a mediating role between the relationship of learning organization and job performance.

Rus, Chirică, Raţiu, and Băban (2014) investigated the *relationship between learning organization dimensions and university social responsibility among* two sample populations comprising 536 members working in public Romanian universities (first sample consists of three groups of internal stakeholders: students, staff with leadership, monitoring, evaluation, and control roles; and second sample included staff involved in the development of the study programs). The study results showed that the learning organization dimensions were positively associated with social responsibility.

Guerdat (2011) determined the relationship between two dimensions of *learning organization (i.e., system connection and strategic leadership), and employees' perspective of the organization's ethical climate.* The study included a convenient sample of 593 surveys of 'County Cooperative

Extension Agents' within the Southern region of the United States. The study results indicated that there was a low to moderately low predictive relationship between learning organization dimensions, i.e., system connection and strategic leadership, and perceived ethical climate.

In Asian context, researchers investigated the relationship between learning organization and organizational outcomes. For instance, Tseng (2010) examined the *impact of learning organization on organizational commitment and effectiveness* among 300 employees working in small and medium-sized enterprises (SMEs) in Taiwan. The results showed that learning organization strongly impact organizational commitment and organizational effectiveness.

Shieh (2011) examined the *impact of learning organization on customer knowledge management (CKM) and organizational performance.* The study was conducted among the Taiwanese directors and staff working in service businesses in China. The study findings revealed a positive correlation between learning organization, customer knowledge management (CKM), and organizational performance.

Lau, McLean, Hsu, and Lien (2016) investigated the relationship between *organization culture, learning organization, and affective commitment.* The data comprised of 516 employees' working in Malaysian organizations (banking and finance, manufacturing, private higher education, agriculture, and other sectors). The study results showed that that learning organization mediated the relationship between organization culture and affective commitment.

Ali (2012) identified the academic staff perception levels of characteristics of a learning organization among 400 academicians working in the International Islamic University Malaysia (IIUM). Additionally, the author examined the relationship between *learning organization dimensions and staff performance satisfaction in teaching and research activities.* The study results indicated that the academic staff perceived moderate levels of the characteristics of a learning organization. The results revealed a significant association between learning organization dimensions and performance satisfaction in teaching and research. Among the seven dimensions of learning organization, '*strategic leadership'* showed the strongest relationship with teaching performance satisfaction, whereas '*embedded system'* exhibited a significant relationship with satisfaction in research activities.

In Indian organizational context, Chawla and Lenka (2015) identified the *antecedents and consequences of learning organizations* among 300 faculty members of Indian higher educational

institutes. The study found that the variables namely resonant leadership, knowledge management, intrapreneurship and total quality management exerted a significantly moderate impact on learning organization. The authors also reported that learning organization contributes to strong employer branding.

Awasthy and Gupta (2012) investigated the *relationship between people-level learning dimensions (i.e., continuous learning, inquiry and dialogue, and team learning); structural-level learning dimensions (i.e., empowerment, embedded system, system connection, and strategic leadership); and performance outcomes (i.e., financial and knowledge performance).* The sample population comprised of 292 executives working in organizations including manufacturing, consultancy, KPO, BPO, financial services and other multinational firms operating in the National Capital Region of India. The study findings revealed that the relationships between people-level learning dimensions and performance outcomes were mediated by structural-level learning dimensions. The study also offered empirical support for the validity of 'Dimensions of Learning Organization Questionnaire' (DLOQ) for measuring learning organization dimensions in the Indian organizational context.

In addition, Awasthy and Gupta (2011) explored employees' perception of their organizations' orientation towards learning in manufacturing and service firms. The authors utilized the 'Dimensions of the Learning Organization Questionnaire' (DLOQ) for measuring perceptions of 235 executives working in the National Capital Region (NCR) in India. The study results revealed that structural level dimensions (i.e., empowerment, embedded system, system connection, and strategic leadership) exerted a more significant impact on a firm's financial and knowledge performance, as compared to the people level dimensions of learning organization (i.e., continuous learning opportunities, dialogue and inquiry and team learning). Furthermore, the study results demonstrated that no difference was found between manufacturing and service sectors outlook in context of incorporating a learning organization (LO) culture.

In contrast, research emphasized that learning organization culture is considered most effective for service firms (for instance, Lien, Hung, Yang, & Li, 2006). Chawla and Joshi (2011) investigated the difference in learning organization practices across three major industries (IT and ITES, manufacturing, and power generation and distribution) in India. The results showed that IT and ITES

industry was ahead of both manufacturing and power generation and distribution companies in terms of the incorporation of learning organization culture.

Resonating a similar perspective, Singh and Soltani (2010) found that knowledge awareness level and commitment was high in Indian IT companies. Another study by Pillania (2005) in Indian context revealed the existence of knowledge management strategy in software industry. Researchers reported that since IT and IT-enabled industry is more knowledge intensive, thus, these firms are more proactive in adopting the learning organization culture.

Overall, a glance at the existent literature on *'learning organization'* indicates that learning organization augments financial performance, organizational commitment, job satisfaction, and employee social responsibility. Moreover, research also accomplishes that a learning organization culture is the prominent working culture for nurses, manufacturing and service industries. In essence, the review of learning organization literature concludes that learning organization significantly contributes to organizational sustainability and competitive advantage through its positive impact on organizational outcomes.

Conclusively, it is evident from the above discussion that in recent years there is a surge in the interest of scholars to study learning organization. Though, literature shows evident gaps that calls for further investigation: *First,* majority of studies on the construct of learning organization have been conducted in western working milieus (for e.g., Örtenblad, 2015; Wilson & Beard, 2014; Hannah & Lester, 2009). A glance at the existent literature on learning organization shows that the concept has attracted mounting attention in the West and still the scholarly literature surrounding the concept is minimal in other parts of the world with different social and organizational cultures (Marquardt, 2002; Marsick & Watkins, 2003). *Second,* though, till date researchers have investigated various factors associated with learning organization, yet there is scant research investigating the relationship between learning organization, employee resilience and work engagement. Till date, no research has been conducted linking learning organization, employee resilience and work engagement in Indian organizational context. The present study bridges this gap by examining the impact of learning organization on employee resilience and work engagement. *Table 2.1* summarizes the previous studies of learning organization across varied sectors in different countries.

Table 2.1: Summary of Previous Studies on Learning Organization

Source/Study	Research design (Sample, setting, and methodology)	Variables {Antecedents [A], Mediator [M], Moderator [MO], Consequences [C]}	Findings
Awasthy & Gupta (2011) **Objective**- The study examined the impact of individual level and structural level dimensions of learning organization on firms financial and knowledge performance.	**Sample-**The sample population comprised of 235 executives working in Indian manufacturing and service firms in the National Capital Region (NCR) in India. **Methodology**- Regression analysis	**[A]** Learning organization individual- level dimensions (continuous learning, inquiry and dialogue, and team learning) **[A]** Learning organization structural- level dimensions (empowerment, embedded system, system connection, and strategic leadership) **[C]** Financial performance **[C]** Knowledge performance	The study findings showed that the structural level dimensions of learning organization exerted a significant impact on a firm's financial and knowledge performance, as compared to the individual level dimensions. Moreover, the results indicated that there was no significant difference between Indian manufacturing and service firm's outlook in terms of learning organization culture integration.
Awasthy & Gupta (2012) **Objective**- The study assessed the relationship between people-level learning dimensions, structural level-learning dimensions, and performance outcomes.	**Sample-**The sample comprised of 292 executives working in multinational companies operating in the Indian National Capital Region in India. **Methodology**- Structural Equation Modelling (SEM)	**[A]** Learning organization individual -level dimensions (continuous learning, inquiry and dialogue, and team learning) **[A]** Learning organization structural -level dimensions (information sharing structures, systems connection, strategic leadership, and empowerment) **[C]** Performance (knowledge and financial performance)	The study found that the relationship between individual-level learning dimensions and performance outcomes was mediated by structural-level learning dimensions.

Joo (2012) **Objective**- The primary goal of this study was to examine the impact of Leader-Member Exchange (LMX) quality on in-role job performance. Additionally, the study investigated the moderating effect of learning organization dimensions on the relationship between LMX and in-role job performance.	**Sample-**The sample was collected from supervisors of five companies operating in Korean conglomerates. **Methodology-** Hierarchical Multiple Regression analysis	**[A]** Leader-Member Exchange quality (LMX) **[MO]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** In-role job performance	The study results demonstrated that LMX quality significantly impacted employees' job performance. Moreover, the results indicated that the two learning organization dimensions (i.e., embedded system and strategic leadership) significantly moderated the relationship between LMX quality and in-role job performance.
Sahaya (2012) **Objective**- This study investigated the mediating role of learning organization in the relationship between leadership styles (transformational, transactional, and passive-avoidant), and financial performance.	**Sample-**The data comprised of responses of 400 employees working in Thailand stock exchange. **Methodology**- Linear Regression analysis	**[A]** Leadership styles (transformational, transactional, and passive-avoidant) **[M]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** Firms' financial performance	The results showed that only two dimensions of learning organization, i.e., inquiry and dialogue, and strategic leadership partially mediated the relationship between transformational leadership style and financial performance. Moreover, the findings revealed that only one dimension of learning organization namely empowerment showed partial mediation on the relationship between transactional leadership style and financial performance. However, no learning organization dimension mediated the relationship between passive-avoidant leadership style and financial performance.
Baird (2012) **Objective**- The study investigated the mediating effect of psychological needs on the relationship between the learning organization dimensions and affective and normative organizational commitment.	**Sample-**The sample comprised of 870 registered nurses working in hospitals in the United States. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[M]** Psychological needs (competence, autonomy, and relatedness)	The study results found that two psychological needs, i.e., autonomy and relatedness partially mediated the relationship between learning organization dimensions and affective and normative organizational commitment. However, competence does not exert a significant mediating effect.

		[C] Organizational commitment	
Jafari & Kalanaki (2012) **Objective**- This study investigated the relationship between learning organization dimensions and employees' readiness-to-change.	**Sample-**The data was collected from 90 teachers and administrative personnel in Tehran. **Methodology**- Multiple regression analysis	**[A]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** Employees' readiness-to-change	The study found a significant relationship between all the seven learning organization dimensions and employees readiness-to-change.
Sweet (2012) **Objective**- The study investigated the relationships between psychological capital components (hope, self-efficacy, optimism, and resilience) and learning organization dimensions.	**Sample-**The sample population comprised of 500 employees working in the community medical center. **Methodology**- Correlation analysis	**[A]** Psychological capital (hope, self-efficacy, optimism and resilience) **[C]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership)	The findings showed that the three psychological capital components, i.e., hope, self-efficacy, and optimism showed significant relationships with all the seven dimensions of learning organization. While, resilience was significantly related with only two dimensions of learning organization namely continuous learning opportunities and inquiry and dialogue.
Watkins & Dirani (2013) **Objective**- The study conducted a meta-analysis of existent studies which utilized the Dimensions of a Learning Organization Questionnaire (DLOQ).	Meta-analysis	Dimensions of Learning Organization Questionnaire (DLOQ)	The meta-analysis study demonstrated that DLOQ is consistently reliable across multiple organizational contexts and cultures. This study offered significant information for practitioners and senior leaders interested in evaluating their organization culture.

Song, Chermack, & Kim (2013) **Objective**- This study reviewed the existent studies which utilized the Dimensions of the Learning Organization Questionnaire (DLOQ) across various organizations.	**Methodology**- Comprehensive literature review	Dimensions of the Learning Organization Questionnaire (DLOQ)	This study demonstrated the accuracy of DLOQ across multiple cultures and promoted the use of DLOQ in multiple disciplines.
Shipton, Zhou, & Mooi (2013) **Objective**- This study developed and tested the learning organization model. Also the study investigated the mediating role of innovation between learning organization and organizational performance.	**Sample-**The data was collected from 6000 organizations across 15 countries. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Learning organization (developmental orientation, HRM focus, and customer-facing remit) **[M]** Innovation **[C]** Organizational performance (sustained competitive advantage and financial performance)	The study found significant impact of learning organization on innovation and financial performance. Also, the results indicated that innovation played a significant mediating role between learning organization and organizational performance.
Park, Song, Yoon, & Kim (2014) **Objective**- The study primarily investigated the relationship between learning organization, work engagement, and innovative behavior. Moreover, the study examined the mediating effect of work engagement on the relationship between learning organization and innovative behaviour.	**Sample-**The sample consisted of 326 employees working in various business organizations in Korea (manufacturing, construction, IT, and electronic). **Methodology**- Structural Equation Modeling (SEM)	**[A]** Learning organization **[M]** Work engagement **[C]** Innovative behavior	The study found that learning organization culture significantly influence employees' innovative work behaviors both directly and indirectly through the mediating effect of work engagement.

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Song, Lim, Kang, & Kim (2014) **Objective**- This study investigated the relationships among team performance, learning organization, and employee engagement. Moreover, the study examined the mediating effect of employee engagement on the relationship between learning organization and team performance.	**Sample-**The data was drawn from 309 employees working in various Korean for-profit firms (construction, manufacturing, IT solution and service and banking companies). **Methodology**- Structural Equation Modeling (SEM)	[A] Learning organization [M] Employee engagement [C] Team performance	The study findings showed that learning organization significantly impact team performance both directly and indirectly. Employee engagement fully mediated the relationship between learning organization and team performance.
Uday Bhaskar & Mishra (2014) **Objective**- The study examined the relationship between learning organization and work engagement.	**Sample-**The sample comprised of 87 employees working in a multinational IT firm operating in the National Capital Region in India. **Methodology**- Regression analysis	[A] Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) [C] Work engagement	The results showed that only two learning organization dimensions namely system connection and empowerment significantly predicted work engagement.
Ponnuswamy & Manohar (2014) **Objective**- This study investigated the relationship between learning organization and organizational knowledge, and research performance among teachers.	**Sample-**The data was collected from 700 faculty members working in Indian higher education institutions. **Methodology**- Hierarchical Multiple Regression	[A] Learning organization [C] Knowledge performance [C] Research performance	The results demonstrated a significant relationship between learning organization culture, knowledge performance, and research performance. Additionally, the results revealed that knowledge performance significantly predicted research performance.

Salehzadeh, Asadi, Khazaei Pool, Reza Ansari, & Haroni (2014) **Objective**- The purpose of this study was to explore the influence of perceived organizational support on dimensions of learning organization.	**Sample-**The sample population comprised of 950 employees working in SMEs of Nowshahr in Iran. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Perceived organizational support **[C]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection and strategic leadership)	The study findings indicated that perceived organizational support significantly impact learning organization dimensions, i.e., continuous learning, inquiry and dialogue, team learning, embedded system, empowerment, system connection and strategic leadership.
Rus, Chirică, Rațiu, & Băban (2014) **Objective**- This study investigated the relationship between learning organization and university social responsibility.	**Sample-**The data comprised of 536 members of public Romanian universities. **Methodology**- Multiple Hierarchical Regression analysis	**[A]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** Social responsibility	The study findings demonstrated a significant relationship between all the learning organization dimensions and social responsibility.
Dekoulou & Trivellas (2015) **Objective-** This research examined the relationship between learning organization, job satisfaction, and job performance.	**Sample-**The sample comprised of 251 employees working in Greek advertising agencies. **Methodology-** Stepwise Regression analysis	**[A]** Learning organization **[M]** Job satisfaction **[C]** Job performance	The study results showed that learning organization significantly predicted both employee job satisfaction and individual performance. Moreover, job satisfaction played a mediating role between learning organization and job performance relationship.

Kanten, Kanten, & Gurlek (2015) **Objective**- This study aimed to investigate the effects of organizational structures and learning organization on job embeddedness and individual adaptive performance.	**Sample-**The data were collected from 216 employees working in four and five-star hotels in Ankara city in Turkey. **Methodology**- Structural Equation Modelling (SEM)	**[A]** Organizational structures (organic and mechanistic structures) **[M]** Learning organization **[C]** Job embeddedness **[C]** Individual adaptive performance	The study results indicated that learning organization fully mediated the relationship between organic organization structure and job embeddedness. Also, it was found that learning organization played a full mediating role between organic organization structure and individual adaptive performance. In addition, learning organization fully mediated the relationship between mechanistic organization structure and individual adaptive performance.
Pokharel & Choi (2015) **Objective**- The purpose of this study was to examine the relationships between learning organization dimensions and organizational performance.	**Sample-**The data was collected from 331 employees working in public sector organizations in Virginia. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** Organizational performance	The study results revealed that the five dimensions of learning organization, i.e., learning opportunities, inquiry and dialogue, team learning, empowerment, and system connection exerted a considerable impact on organizational performance. However, two learning organization dimensions namely embedded system and strategic leadership did not show significant relationship with organizational performance. Out of the seven learning organization dimensions, system connection showed most significant impact on organizational performance.

Hatane (2015) **Objective**-The study examined the impact of learning organization on financial performance. Also, the intervening role of employee satisfaction and employee performance were gauged on the relationship between learning organization and financial performance.	**Sample-**The data comprised of 201 managers working in 33 manufacturing and 34 non-manufacturing companies in Indonesia. **Methodology**- Structural Equation Modelling (SEM)	[A] Learning organization [MO] Employee satisfaction [MO] Employee performance [C] Financial performance	The study results showed direct and indirect influences of learning organization on financial performance. The study found that employee satisfaction and employee performance played a significant role in strengthening the influence of learning organization on firms' financial performance.
Chawla & Lenka (2015) **Objective**- This study explored the antecedents and consequences of learning organizations in Indian higher educational institutes.	**Sample-**The data consisted of 300 faculty members of Indian higher educational institutes. **Methodology**- Regression analysis	[A] Resonant leadership [A] Intrapreneurship [A] Knowledge management [A] Total quality management [C] Learning organization [C] Employer Branding	The study found that the variables namely resonant leadership, knowledge management, intrapreneurship, and total quality management exerted a significant moderate impact on learning organization. Also, the findings showed that learning organization results in strong employer branding.
Islam, Ahmed, & Ahmad (2015) **Objective**- The study examined the relationships between organizational learning culture, perceived organizational support, affective commitment, and turnover intention.	**Sample-**The sample consisted of 758 employees working in banking sector in Pakistan. **Methodology**- Structural Equation Modeling (SEM)	[A] Organizational learning culture [A] Perceived organizational support [M] Affective commitment [C] Turnover intention	The study found that perceived organizational support and organizational learning culture were positively associated with affective commitment and negatively associated with turnover intention. Also, the results indicated that affective commitment mediated the relationship between organizational learning culture, perceived organizational support and turnover intention.

Choi, Kim, & Yoo (2016) **Objective**- This study investigated the impact of learning organization on leader-member exchange and quality commitment. Moreover, the study examined the moderating influence of Leader-Member Exchange (LMX) on the relationship between learning organization and quality commitment.	**Sample-**The sample comprised of 509 full-time workers working in manufacturing, public enterprises and wholesale and retail trade organizations in Korea. **Methodology**- Regression analysis	**[A]** Learning organization (shared vision, mental model, personal mastery, team learning, and system thinking) **[MO]** Leader-Member Exchange (LMX) **[C]** Quality commitment	The study findings revealed that learning organization showed a significant association with leader-member exchange and quality commitment. Also, leader-member exchange moderated the relationship between learning organization and quality commitment.
Lau, McLean, Hsu, & Lien (2016) **Objective**- The study investigated the relationship between organization culture, learning organization, and affective commitment.	**Sample-**The data comprised of 516 employees' working in Malaysian organizations (banking and finance, manufacturing, private higher education, agriculture and other sectors). **Methodology**- Structural Equation Modelling (SEM)	**[A]** Organizational culture **[M]** Learning organization **[C]** Affective commitment	The study results showed a significant relationship between organizational culture, learning organization, and affective commitment. Also, the study found that learning organization mediated the relationship between organization culture and affective commitment.
Malik & Garg (2017a) **Objective**- This study examined the effect of learning organization dimensions on work engagement in Indian IT firms.	**Sample-** The data comprised of 250 managerial employees' working in IT companies based in India. **Methodology**- Hierarchical Regression analysis	**[A]** Learning organization dimensions (learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership) **[C]** Work engagement (vigor, dedication, and absorption)	The findings of the study showed that vigour and dedication were most significantly predicted by embedded system and continuous learning opportunities of learning organization, whereas inquiry and dialogue exerted the most significant influence on absorption.

2.3 Resilience

There are two roads to survival: fight or adaptation. And most often adaptation is more successful.

-Hans Selye (cited in Galloway, 2014)

Over the years, the construct of 'resilience' has been eminently examined within the fields of *clinical and child developmental psychology* (Garmezy, 1974; Masten, Best, & Garmezy, 1990; Masten, 2001; Tugade & Fredrickson, 2004). Originally, research in the area of resilience began with a focus almost entirely on the characteristics of children who seemed to persevere despite great hardship or adversity. The earlier resilience studies searched for distinguished risk factors that could effectively treat psychopathological diseases among children. Garmezy is credited with the first systematic investigation of how children of schizophrenic mothers demonstrated positive growth despite their adverse circumstances (Garmezy, 1974). Later, Masten, Best, and Garmezy (1990) studied children with psychiatric disorders, in particular, those with schizophrenia and found that a small number of children did not display the expected maladaptive behaviors but instead displayed behaviors that were within the normal range of social development. This led researchers to claim that there was a process at work that mitigated the effects of exposure to adversity, and perhaps even stimulated growth in the face of adversity (Yates, Egeland, & Sroufe, 2003).

The extant research on resilience is highly fragmented, with discrete clusters of research focusing on resilience at *"individual"* and *"organizational"* levels. '*Individual resilience'* research is commonly theorized in relation to well-being, emotion and identity (e.g., Avey, Reichard, Luthans, & Mhatre, 2011; Dunn, Iglewicz, & Moutier, 2008; Jackson, Firtko, & Edenborough, 2007; McLarnon & Rothstein, 2013). Various psychological traits, cognitive skills, and individual-specific characteristics have been used to characterize *individual level resilience*. These included but are not limited to *self-esteem, locus of control, creative capacity, self-efficacy, hope, risk avoidance, competence, goal internalization, and personal control* (Cameron & Brownie, 2010; Gillespie, Chaboyer, Wallis & Grimbeek, 2007; Lamond et al., 2008).

In contrast, '*organizational resilience'* literature emphasizes how organizations respond to, and recover from extreme events (Starbuck & Farjoun, 2009; Weick & Sutcliffe, 2007). Organizational resilience has been reported to be promoted by *a strong sense of organizational purpose* (Lengnick-Hall, Beck, & Lengnick-Hall, 2011); *organic, decentralized, team based or networked organizational structures with diffused power and accountability* (Lengnick-Hall, Beck, &

Lengnick-Hall, 2011; Weick & Sutcliffe, 2007); *and financial reserves* (Gittell, Cameron, Lim, & Rivas, 2006).

The existent literature on *'individual resilience'* has advanced over the years and can be organized into three phases (Grafton, Gillespie, & Henderson, 2010). The *first phase* examined resilience as a set of *'resilient qualities'* (for instance, hardiness, coping, self-efficacy, optimism and adaptability). This primarily *focused on the psychological traits and individual characteristics exhibited by resilient individuals.* The *second phase* shifted their focus towards considering resilience as a *'dynamic process',* where adversity was dealt with the enrichment of protective factors such as robustness and vigor; skills and values; and supportive, affectionate family. The most *recent outlook* on resilience considers it as *'innate resilience',* which indicate an individual's motivating life force that support him to cope with adverse situations, learn from experiences, and exhibit cognitive transformations (Grafton, Gillespie, & Henderson, 2010). The recent phase focuses on the *'developable capacity of resilience which can be fostered and grown through discourse, interaction, and material considerations'*, i.e., a developing malleable capability (Buzzanell, 2010; Rutter, 2012; Youssef & Luthans, 2007).

Earlier, resilience was predominantly examined as a rare "*personality trait"* related to adaptability and coping ability (Block, 1961). Further, the researchers emphasized on "*protective factors*, which were thought to be dynamic and changeable (Werner & Smith, 2001). Later, the researchers conceptualized resilience as a "*process"*, which was defined as a "*process, capacity or outcome of successful adaptation despite challenges or threatening circumstances"* (Masten, Best & Garmezy, 1990). Supporting this view, Buzzanell (2010) argued that "*rather than an individual phenomenon that someone either possesses or does not, resilience is developed, sustained, and grown through discourse, interaction, and material considerations"*. Poole advocated that the 'process perspective' *considered "resilience as a dynamic, integrated, unfolding over time and through events, evolving patterns, and dependent on contingency"* (cited in Buzzanell, 2010, p. 2). However, the recent phase looks beyond dispositional views of resilience and rather focuses on the "*developable and transformational"* nature of resilience (Luthans, 2002a; Rutter, 2012). The 'developmental perspective' mark the third and the most contemporary outlook on resilience that not only considers it as an individual's restoration ability, rather view resilience as an individual's

capability, which enable him to exploit change opportunities and flourish in the changing environment (Lengnick-Hall, Beck, & Lengnick-Hall, 2011).

Notably, with the evolution of 'Positive psychology' movement, Luthans (2002b) developed the concept of positive psychological capital (PsyCap), which constitutes of self-efficacy, hope, optimism, and resilience. The construct of resilience was primarily studied as a subcomponent of psychological capital (Avey, Wernsing, & Mhatre, 2011). While resilience has been majorly explored as a component of positive psychological capital, it has received minimal attention as a distinct construct that can result in unique and significant implications at workplace. Eventually, the inclusion of resilience within the larger construct of positive psychological capital lead researchers and practitioners to undervalue the crucial role of resilience within the workplace context (Mills, Fleck, & Kozikowski, 2013).

Though, there have been attempts to build an understanding of the concept of resilience at work, they offers inadequate empirical evidence supporting its extensive implications at workplace. For instance, Maddi and Khoshaba (2005) insisted that the key to resilience is the development of psychological hardiness and penned a book entitled '*Resilience at Work'* (Maddi & Khoshaba, 2005). Hardiness is composed of three attitudes: commitment, control, and challenge (Kobasa, 1979). Maddi and Khoshaba (2005) discussed ways to help individuals to become resilient in the face of adversity at work and focused on the development of the attitudes of hardiness. However, while Maddi and Khoshaba's (2005) book demonstrated the construct of resilience at work, it lacks significant empirical evidence. Moreover, their book stressed on the importance of individual attributes, such as hardiness in fostering resilience at work, which is only one of the many contributing pathways to resilience. This ultimately does not include many other factors that may be associated with resilience, and still remain unexplored.

2.4 Employee Resilience

With the incessant advancements and technological transformations, employees are likely to face situations of organizational restructuring, and multifaceted challenges at workplace in the form of business process reengineering and continual automations. Thus, it becomes essential for organizations to develop their employees' abilities to face these challenges successfully. Subsequently, organizations need to build a resilient workforce that adapt effectively to the ever

changing workplace demands and environmental challenges (Shin, Taylor & Seo, 2012; Tugade & Fredrickson, 2004). Luthans, Vogelgesant, and Lester (2006) also insisted that human resource professionals should focus on developing their employees' resilience.

Essentially, employee resilience is not just an avoidance of the negative consequences of stress (e.g., burnout), rather it assists an individual to emerge successfully from stressful conditions with more knowledge and competence, thereby allowing his/her professional career to follow a positive developmental trajectory. In essence, this perspective advocate that individuals who display resilience at work follow a positive developmental trajectory in their professional lives after an experience of adversity. Positive development is marked by professional growth that is characterized by an enhancement of professional knowledge, ability, and competence.

Recent studies have shown that employee resilience can be manifested in both stable and adverse conditions, which indicate that resilience is not only required to cope with adverse working demands, rather it should be seen as a capacity that could be fostered proactively among employees (Kuntz, Näswall, & Malinen, 2016). Thus, it becomes necessary for organizations to identify strategies for developing their employee resilience. The development of resilience does not solely rest with the employees, rather it must be seen as a mutual process involving both employers and employees contributions.

Echoing a similar vein, Britt et al. (2016) argued that employees are not only affected by adverse traumatic events at work such as abusive supervision and disasters, rather they are also affected by common workplace stressors such as conflicting job design. The authors suggested that resilience development is not only essential for workers who face significant adversity such as the military personnel, or for police or disaster management workers, rather it is also vital for employees working in other professions who do not face routine adversity. For instance, chronic heavy workloads and deadlines also contribute to workers significant mental and physical health problems. When employees face arduous work demands and are required to work in different time zones, it ultimately affect their performance and could result in severe health issues.

Lately, researches have highlighted the vital role of organizational environment in fostering employees' resilience proactively, which could support them to cope with the adverse situations in

future (Kuntz, Näswall, & Malinen, 2016). In practice, organizations can play a significant role in developing employee resilience by providing enriched workplace that offers supportive climate and resources, which in turn develop and sustain their resilient capability. This approach suggests that, rather than looking for resilient individuals, organizations need to focus on nurturing their employees' resilience by creating a resilience-promoting environment.

2.4.1 Antecedents and Outcomes of Employee Resilience

A glance at the literature shows that the construct of resilience has been explored by social workers, psychologists, educationalists, ecologists and many others over the decade (Mansfield, Beltman, Price, & McConney, 2012). Previous research on resilience demonstrates many direct and indirect indicators or antecedents and consequences of resilience.

Primarily, research in the area of positive psychology demonstrated the role of positive emotions in developing resilience (Arehart-Treichel, 2005; Lounsbury et al., 2003). Fredrickson (1998) proposed the 'broaden -and- build theory' to demonstrate the role of positive emotions in building an individual's physical and psychological resources. According to this theory, positive emotions allow individuals to 'broaden' their understanding of adversities by 'building' upon the personal resources needed to adapt and embark on the hardships. This implies that positive emotions broaden personal psychological resources such as coping capacity and creativity, which play a significant role in enhancing an individual's ability to overcome difficulties. Fredrickson's (2001) broaden-and-build theory suggests that positive emotions, *"(a)* broaden thought-action repertoires, *(b)* undo lingering negative emotions, *(c)* fuel psychological resiliency, and *(d)* trigger upward spirals toward improved emotional well-being".

Galloway (2014) explored the significance of positive emotions in generating resilience. The study sample comprised of fifty four employees of a customized logistics and delivery company located in the United States. Results indicated that positive emotions make a significant contribution towards fostering resilience in the workplace.

The existent literature supports the proposition that resilience may be learned and fostered (Winwood, Colon, & McEwen, 2013; Rutter, 2012). Resonating this fact, Worline and colleague's (2006) found that organizational practices could help to cultivate various resources that can aid in

fostering employee resilience (cited in Caza, 2007). Lately, research indicates that Human Resource Management (HRM) policies and practices could facilitate the development of resilience (Bardoel, Pettit, De Cieri, & McMillan, 2014; Robertson, Cooper, Sarkar, & Curran, 2015).

Khan et al. (2017) examined the impact of HR practices on employee resilience in Pakistan telecommunication sector. Their findings indicated that four key areas of HR practices, i.e., job design, information sharing and flow within an organization, employee benefits (monetary as well as non-monetary), and employee development opportunities foster employee resilience.

Cooke et al. (2016) examined the relationships among High-Performance Work System (HPWS), employee resilience and employee engagement in the Chinese banking industry. The study sample comprised of 2040 employees working in the Chinese banking industry. The study findings suggested that HPWS significantly impact resilience and enhance employee engagement. Also, the study found that employee resilience played a mediating role between HPWS and employee resilience relationship.

Moreover, McCray, Palmer, and Chmiel (2016) explored the factors that contribute to the development of resilient teams and subsequently influence team performance. The authors reported that organizations need to focus on facilitating individual's learning for building multi-disciplinary resilient teams. Moreover, the study suggested that to develop resilience among inter-professional teams where members are more closely integrated, organizations should focus upon augmenting team learning.

Brown (2016) examined the relationship between change fatigue, resilience, and job satisfaction among nurses. The sample comprised of 535 hospital staff nurses. The study results revealed a significant negative association between change fatigue and job satisfaction; and change fatigue and resilience. Moreover, the findings demonstrated a significantly positive association between resilience and job satisfaction.

Kim and Windsor (2015) investigated the relationship between resilience and work-life balance among the sample of nurses in Korea. The authors conducted in-depth interviews of 20 nurse managers working in six university hospitals. The study results showed that work-life balance played a crucial role in generating resilience in nurse managers and in turn reduced turnover intention of the Korean nursing workforce.

Additionally, Blasdel (2015) explored strategies for promoting resilience among marketing communication professionals working in various marketing agencies (Boston, Chicago, Kansas City, Omaha, New York, and Washington D.C). This research added to the evolving body of literature on resilience in the workplace context. The study findings suggested that professionals utilize number of strategies to cope with setbacks at work. The proposed strategies included *maintaining and using communication networks, tapping alternate logics at work, and maintaining perspective*.

Tian et al. (2015) examined the association between resilience, psychological empowerment, and job burnout. The data was collected from 575 telephone operators working in a multi-center mobile communication company in China. The study results indicated that resilience and psychological empowerment significantly impacted job burnout. Additionally, the findings of the study showed that psychological empowerment partially mediated the relationship between resilience and job burnout.

Pincott (2014) investigated strategies utilized by female executive leaders in order to be resilient at workplace. The author conducted semi-structured interviews among 20 female executive leaders working across nine different industry sectors (5 leaders from U.S.A and 15 leaders from Canada). The study results demonstrated four strategies which contributed to the development of female leaders' resilience. The strategies include *self-awareness, social awareness, self-management, and social management*.

Wasden (2014) tested the relationship between transformational leadership and resilience within the confines of higher education leadership at a private university in the United States. This study focused on a sample of eighty higher education administrators and staff personnel exhibiting leadership responsibilities at Northwest United States baccalaureate degree granting university. The study results showed that a moderately positive correlation exists between transformational leadership and resilience within higher education leadership.

Furthermore, Mealer, Jones, and Moss (2012) investigated the reasons as to how some nurses experience psychological problems due to stress at workplace, while others thrive and remain employed. The study findings advocated that highly resilient nurses utilized positive coping skills to

prevent the development of post-traumatic stress disorder and work successfully in spite of the stressful working environment. Furthermore, the findings showed that highly resilient nurses recognized spirituality, a supportive social network, optimism, and a resilient role model as significant approaches to cope up with challenges at workplace.

Shin, Taylor, and Seo (2012) investigated the role of resources namely organizational inducements and employee psychological resilience in influencing employees' commitment to change, and supportive behaviors for organizational change. This study utilized a longitudinal survey research design applied to a sample of employees and managers working in an IT firm in South Korea. The study found that organizational inducements and resilience were positively related to two types of employees' commitment to change (i.e., normative and affective commitment to change), and that these effects were mediated through state positive affect and social exchange. The study also found that both normative and affective commitment to change were positively associated to support for change, and negatively associated to turnover intentions.

Nath and Pradhan (2012) examined the relationship between positive affect, psychological resilience, physical health, and psychological well-being among engineering, management, and research students in Indian university. The study also tested the mediating effect of psychological resilience on the relationship between positive affect, and physical health, and psychological well-being. The study findings demonstrated that positive affect showed positive correlations with psychological resilience, physical health, and psychological well-being. In addition, the study results revealed that psychological resilience significantly mediated the relationship between positive affect, and physical health, and psychological well-being.

Trapp (2010) examined the association among emotional intelligence, resilience, and academic performance among teachers at a state university in western Pennsylvania. A total of 118 teachers participated in the study. The results revealed significant correlation between emotional intelligence and resilience.

Dalzell (2009) explored the organizational structures, processes, and mechanisms that can be incorporated to build resilience among front-line nurses working in the acute-care surgical inpatient units at 'University of British Columbia Hospital' (UBCH). The study findings revealed that an organizational culture that encourages participatory decision-making, communication, social

support, and teamwork foster front-line nurses resilience (AbuAlRub, 2004; Erenstein & McCaffrey, 2007; Maddi, 1999).

With the escalating research on resilience in workplace context, researchers began to develop instruments aimed at measuring the construct (Wang, Cooke, & Huang, 2014; Hodliffe, 2014; Winwood, Colon, & McEwen, 2013). Wang, Cooke, and Huang (2014) explored the levels of resilience among Chinese workforce in the banking sector. The authors developed a resilience measuring instrument that comprised of nine dimensions namely: vision, determination, interaction, relationships, problems solving, organization, self-confidence, flexibility, and adaptability and proactive. The study advocated that researchers should draw on theories such as Demerouti, Bakker, Nachreiner, and Schaufeli's (2001) "Job Demands/Resources" theory and "Fredrickson's Broaden-and -Build" theory (Fredrickson, 1998) to elucidate how resilience supports individuals in coping with workplace challenges and perform effectively.

Additionally, Hodliffe (2014) developed and validated an employee-centric tool for measuring employee resilience. Furthermore, the study investigated the relationship between organizational factors (i.e., learning culture, empowering leadership, employee participation, and corporate communication), and employee resilience. Also, the study examined the relationships between employee resilience, job engagement, job satisfaction, and intention to quit. The study found that employee resilience was significantly related with learning culture, empowering leadership, job engagement, job satisfaction, and turnover intention. However, the study results revealed that employee resilience does not show any relationship with employee participation and corporate communication. Moreover, the study findings showed that employee resilience played a mediating role in the relationships between learning culture and job engagement and job satisfaction; and empowering leadership and job engagement, job satisfaction, and turnover intentions.

Winwood, Colon, and McEwen (2013) developed an effective measure for resilience at work. The study sample comprised of employees working in health, education, IT, finance, and manufacturing industries in U.S.A, U.K, Canada, and Australia. The researchers propounded a 20-item *'Resilience at Work (RAW) scale',* representing seven components that measured seven aspects of workplace resilience, which can be developed among employees. The components include: *living authentically, finding one's calling, maintaining perspective, managing stress, interacting cooperatively, and staying healthy, and building networks.* The study also found significant

relationship of employee resilience with work engagement, sleep, stress recovery, and physical health.

Moreover, the existent literature demonstrates that there are numerous positive outcomes of resilience including confidence, self-efficacy (Dyer & McGuiness, 1996; Richardson, 2002); self-esteem, trust, positive emotions (Hunter & Chandler, 1999; Tugade & Fredrickson, 2004); and individual's well-being (Cooper, 2013).

Besides, the development of resilience enhances quality of life and contribute to workforce retention (Hart, Brannan, & De Chesnay, 2014). Lately, researchers started examining the benefits of resilience in organizational context, demonstrating its significant implications at workplace including enhanced work engagement and employees' commitment to change (Malik & Garg, 2017b; Shin, Taylor, & Seo, 2012).

Sergeant and Laws-Chapman (2012) found that resilient employees' rate higher on the physical wellness, as compared to their less resilient counterparts. Hodges, Keely, and Troyan (2008) advocated that highly resilient individual's exhibit better coping and adaptive abilities when faced with adversity such as work related stress. De Lucena Carvalho et al. (2006) reported that resilient employees are highly committed to their job, while employees lacking resilience usually adopt an apathetic attitude towards their work (cited in Bande, Fernández-Ferrín, Varela, & Jaramillo, 2015). Youssef and Luthans (2007) suggested that employees who possess higher levels of resilience are more committed towards their organization, and subsequently display enhanced job satisfaction.

Although, these results are encouraging, yet the construct of resilience is severely under-researched in workplace context and literature is still deficient in investigating the unique role that employee resilience might play in boosting work engagement. Although, the concept of resilience has garnered significant attention from academicians in various disciplines (e.g., clinical and developmental psychology), it has lately began to attract the focus of organizational behavior researchers. Though, previous researchers offered various definitions for the concept of resilience, and proposed various tools for its measurement, the construct of resilience in workplace context still require more investigation for recognizing factors that might play a vital role in shaping employee resilience.

Moreover, to date, majority of studies have focused on identifying resilience as a personal characteristic, rather than treating resilience as a dynamic individual capability, which contribute to various positive benefits at workplace. It is evident from the above discussed studies that still there is scant literature, which examined the relationship between employee resilience and work engagement. Majority of the existent research has documented the development of resilience from the psychological perspective (Masten, 2001; Reich, Zautra, & Hall, 2010), and its implication at workplace is still pristine at large (Lengnick-Hall, Beck, & Lengnick-Hall, 2011).

At present, there is minimal literature that examined the role of learning organization in promoting resilience among employees, and its subsequent influence on work engagement. Though, research has found that resilience can be fostered and developed as a capability, yet there is minimal literature that focused on examining the underlying mechanism of how learning organization impacts employee resilience, and in turn subsequently fuel work engagement. **Table 2.2** illustrates the summary of previous research studies on employee resilience. In order to further enrich the understanding of benefits of resilience at workplace, it is crucial to recognize the various factors which contribute to the development of employee resilience, which in turn could play a crucial role in enhancing work engagement.

Table 2.2: Summary of Previous Studies on Resilience

Source/Study	Research design (Sample, setting, and methodology)	Variables {Antecedents [A], Mediator [M], Moderator [MO], Consequences [C]}	Findings
McDonald, Jackson, Wilkes, & Vickers (2012) **Objective**-The study investigated the role of work based educational interventions for developing resilience among nurses and midwives.	**Sample-**The data was collected from 14 nurses and midwives working in an Australian metropolitan women's and children's health service. **Methodology**- Case study	**[A]** Work-based educational programmes (workshops for facilitating mentoring relationships, building hardiness, intellectual flexibility, achieving life balance and reflective and critical thinking, and participatory learning groups) **[C]** Resilience	The study reported that the intervention model, i.e., work-based educational programmes provided new implications for developing and maintaining resilience among nurses and midwives.
Winwood, Colon, & McEwen (2013) **Objective-**The study primarily aimed to develop a measurement scale for resilience at work. Additionally, the study examined the relationship between resilience and work engagement.	**Sample-**The sample was collected from 355 participants working in various industries (IT, manufacturing, education, finance etc.) in Australia. **Methodology-** Structural Equation Modelling (SEM)	**[A]** Resilience at work **[C]** Work engagement	The study propounded a 20- item Resilience at work (RAW) scale for measuring individual resilient capacity. The RAW scale comprised of 7 components including: living authentically, finding your calling, maintaining perspective, managing stress, interacting cooperatively, staying healthy, and building networks. The study also found a significant relationship between resilience and work engagement.
Galloway (2014) **Objective**- This study aimed to explore the significance of positive emotions in generating resilience among employees.	**Sample-** 54 employees of a customized logistics and delivery company in the United States. **Methodology**- Qualitative analysis	**[A]** Positive emotions **[C]** Resilience at workplace	The study results indicated that positive emotions make a significant contribution in developing employees' resilience.

Hodliffe (2014) **Objective**- This study aimed to develop and validate the scale for measuring employee resilience. Additionally, the study investigated the relationship between organizational factors (i.e., learning culture, empowering leadership, employee participation, and corporate communication), and employee resilience. Moreover, the study examined the relationship between employee resilience, job engagement, job satisfaction, and intentions to quit.	**Sample-**The data was collected from 268 employees working in the finance sector and 115 employees working in a civil engineering firm. **Methodology**- Preacher & Hayes (2014) PROCESS MACROS	[A] Learning culture [A] Empowering leadership [A] Employee participation [A] Corporate communication [M] Employee resilience [C] Job engagement [C] Job satisfaction [C] Intention to turnover	The study results demonstrated that employee resilience showed a significant association with learning culture, empowering leadership, job engagement, job satisfaction, and intentions to turnover. Also, the study found that employee resilience does not show a significant relation with employee participation and corporate communication. Moreover, employee resilience played a mediating role between learning culture and job engagement relationship. Employee resilience also mediated the relationships between learning culture and job satisfaction; and empowering leadership and job engagement, job satisfaction, and intentions to turnover.
Pincott (2014) **Objective**- This study explored the strategies contributing to resilience among female executive leaders.	**Sample-**The data was collected from 20 female executive leaders working in various industry sectors in U.S.A and Canada. **Methodology**- Semi-structured interviews	[A] Self-awareness [A] Social awareness [A] Self-management [A] Social management [C] Resilience at workplace	The study results demonstrated four strategies contributing to the development of female leaders' resilience. The strategies included: self-awareness, social awareness, self-management, and social management.

Bande, Fernández-Ferrín, Varela, & Jaramillo (2014) **Objective-** This study investigated the impact of emotional intelligence and resilience on salesperson propensity to leave their organization, both directly and indirectly through their impact on work-family conflict and emotional exhaustion. Also, the study examined the moderating effect of servant leadership on the relationship between emotional exhaustion and intention to leave.	**Sample-**The sample was collected from 209 industrial salespeople working in different industries in Spain. **Methodology-** Structural Equation Modeling (SEM)	[A] Resilience [A] Emotional intelligence [MO] Servant leadership [C] Work-family conflict [C] Emotional exhaustion [C] Turnover intention	The study results showed a significant role of resilience and emotional intelligence in diminishing work-family conflict and emotional exhaustion at work, and reducing turnover intention. Also, the results indicated a significant moderating role of servant leadership towards reducing the effect of emotional exhaustion on salesperson intention to leave.
Wasden (2014) **Objective**- This study investigated the relationship between self-perceived transformational leadership and self-perceived resilience within higher education leadership.	**Sample-**The sample consisted of 80 faculty members working at higher education university. **Methodology**-Correlation analysis	[A] Transformational leadership [C] Resilience	The study results showed a moderately positive association between transformational leadership and resilience within higher education leadership.
Frankenberger (2014) **Objective**- This study explored the relationships among work related stress, social support, work engagement, and resilience. Additionally, the study examined the individual influences of work related stress, social support, and work engagement on resilience.	**Sample-**The sample consisted of 131 emergency department nurses. **Methodology**- Stepwise Multiple Regression analysis	[A] Work related stress [A] Social support [A] Work engagement [C] Resilience	The study results showed that only work engagement significantly predicted resilience. The findings indicated that stress and social support did not influence resilience.

Smith (2015) **Objective**- This study examined the relationship between resilience and authentic leadership, as well as the influence of a leader's resilience on his follower's resilience. Additionally, the study investigated the moderating effect of authentic leadership, relational demography, and leader-member exchange.	**Sample-**The sample comprised of 145 undergraduate students enrolled at a public university in the United States. **Methodology-** Hierarchical Multiple Regression analysis	[A] Supervisor's resilience [C] Follower's resilience [MO] Authentic leadership [MO] Relational demography [MO] Leader-member exchange	The findings of the study showed a significant direct relationship between a leader's resilience and his or her authentic leadership. However, the study found no direct relationship between leader's and follower's resilience. Moreover, the study results indicated that authentic leadership significantly moderated the relationship between leader's and follower's resilience. However, the results showed that the leader-member exchange does not show a significant moderating effect. Also, the follower's perceptions of demographic similarities with their supervisor's did not show a significant moderating effect.
Tian, Liu, Zou, Li, Kong, & Li (2015) **Objective**- This study examined the relationship between resilience, psychological empowerment, and job burnout. Additionally, the study investigated the mediating role of psychological empowerment.	**Sample-**The sample consisted of 575 telephone operators working in a mobile communication company in China. **Methodology-** Hierarchical Linear Regression analysis	[A] Resilience [M]Psychological empowerment [C] Burnout	The study results demonstrated that resilience and psychological empowerment significantly alleviated job burnout. Moreover, the results indicated that psychological empowerment partially mediated the relationship between resilience and job burnout.

Blasdel (2015) **Objective**- This study explored the strategies for generating resilience among marketing communication professionals.	**Sample-**The data was collected from 22 professionals working in the marketing communication agencies in Boston, Chicago, Kansas City, Omaha, New York, and Washington, D.C. **Methodology**- Semi-structured interviews	[A] Maintaining and using communication networks [A] Tapping alternative logics to work [A] Maintaining perspective [C] Resilience	The study findings demonstrated strategies utilized by professionals to enhance their resilience. The proposed strategies included: maintaining and using communication networks, tapping alternative logics to work, and maintaining perspective.
Kim & Windsor (2015) **Objective-** This study explored the relationship between work-life balance and resilience among nurses.	**Sample-** 20 first-line nurse managers working in university hospitals in Korea. **Methodology-** Interviews	[A] Work- life balance [C] Resilience	The study results found that work-life balance significantly contributed to nurses' resilience.
Rees, Breen, Cusack, & Hegney (2015) **Objective-** This study aimed to develop a model of individual resilience.	**Methodology-** Qualitative	[A] Neuroticism [A] Mindfulness [A] Self-Efficacy [A] Coping [M] Resilience [C] Psychological adjustment	Using a qualitative approach, the study proposed a theoretical model of individual resilience. Also, the study posited that resilience would play a significant mediating role between neuroticism, mindfulness, self-efficacy, coping, and psychological adjustment.

Kisekka (2015) **Objective**- This study primarily investigated the factors that influence an individual's resilience. Additionally, the second objective of this study was to examine the direct effects of empowerment factors (competence, meaning, impact, and self-determination), and indirect effects through individual resilience on individual performance quality, and information security and privacy policies.	**Sample-**The data was collected from 163 participants in 8 hospitals in New York. **Methodology**- Partial Least Squares (PLS)-SEM regression	**Objective 1** **[A]** Perceived job meaningfulness **[A]** Systems risk **[A]** Emotional support **[A]** Information access **[A]** Information privacy controls **[A]** Leaders effectiveness **[C]** Resilience **Objective 2** **[A]** Empowerment factors (competence**,** meaning**,** and Impact self-determination) **[M]** Individual resilience **[C]** Perceived individual performance quality **[C]** Intention to comply with security and privacy policies	The study results revealed that perceived job meaningfulness and IT department emotional support, information access, information privacy, and leader's effectiveness fostered individual resilience. However, systems risk does not contribute to individual resilience. The strongest predictor of individual resilience was information access, and the weakest predictor was IT department support. Additionally, the study results showed that all the empowerment factors significantly impact individual performance quality, and intention to comply with security and privacy policies. Moreover, resilience exerted a significant mediating effect on the relationship between empowerment factors, and individual performance quality, and intention to comply with security and privacy policies.
Cooke, Cooper, Bartram, Wang, & Mei (2016) **Objective-** This study examined the relationships among High-Performance Work System (HPWS), employee resilience, and employee engagement.	**Sample-**The sample comprised of 2040 employees working in the banking industry in China. **Methodology-** Structural Equation Modelling (SEM)	**[A]** High-Performance Work System (HPWS) **[M]** Employee resilience **[C]** Employee engagement	The study findings revealed that HPWS significantly impacted resilience and employee engagement. Also, the study results found that employee resilience significantly mediated the relationship between HPWS and employee engagement.

McDermid, Peters, Daly, & Jackson (2016) **Objective-** This study explored the resilience building strategies among nurses in nursing education institutions.	**Sample-**The sample comprised of 14 undergraduate nursing students. **Methodology**- Qualitative study	**[A]** Developing supportive relationships **[A]** Embracing positivity **[A]** Reflection and transformative growth **[C]** Resilience	The study suggested three resilience building strategies namely developing supportive collegial relationships at workplace, embracing positivity, and reflection and transformative growth.
Roberts (2016) **Objective**- This study investigated the relationships between psychological resilience, work engagement, and innovative work behaviour.	**Sample-**The data was collected from non-management employees working at for-profit companies having more than 1,000 employees in United States. **Methodology**- Chi square analysis	**[A]** Resilience **[C]** Work engagement **[C]** Innovative work behaviour	The study results showed a significant relationship between resilience, work engagement, and innovative work behaviour.
Khan, Rao-Nicholson, Akhtar, Tarba, Ahammad, & Vorley (2017) **Objective**- This study examined the impact of HR practices on employee resilience.	**Sample-**The semi-structured interviews were conducted with 23 respondents (13 senior level managers and ten employees) working in telecommunication sector in Pakistan. **Methodology**- Case study and semi-structured interviews	**[A]** HR practices (job design, information flow within the organisation, employee benefits-monetary as well as non-monetary, and employee development opportunities) **[C]** Employee resilience	The findings of the study indicated that four key areas of HR practices namely job design, information sharing and flow within an organisation, employee benefits (monetary as well as non-monetary), and employee development opportunities contributed to the development of employee resilience.

Malik & Garg (2017b) **Objective**- This study investigated the relationship between learning culture, inquiry and dialogue, knowledge sharing structure, and affective commitment to change. Also, the study examined the mediating effect of employee resilience on the relationship between learning culture, inquiry and dialogue, knowledge sharing structure, and affective commitment to change.	**Sample-**The sample comprised of responses from 510 employees' working in information technology companies based in India. **Methodology**- Preacher and Hayes (2004) PROCESS MACROS	[A] Learning culture [A] Inquiry and dialogue [A] Knowledge sharing structure [M] Employee resilience [C] Affective commitment to change	The study results indicated a significant relationship between learning culture, inquiry and dialogue, knowledge sharing structure, employee resilience, and affective commitment to change. Additionally, the study found that employee resilience partially mediated the relationship between learning culture, inquiry and dialogue, knowledge sharing structure, and affective commitment to change.
Meng, Luo, Huang, Wen, Ma, & Xi (2017) **Objective**- The study examined the relationship between resilience, organizational commitment, and job burnout. Additionally, the study investigated the mediating role of Leader-Member Exchange (LMX), and Team-Member Exchange (TMX) on the relationship between employee resilience, organizational commitment and job burnout.	**Sample-**The sample comprised of 236 civil servants working in China. **Methodology**-Structural Equation Modeling (SEM)	[A] Resilience [M] Leader-Member Exchange (LMX) [M] Team-Member Exchange (TMX) [C] Organizational commitment [C] Burnout	The study results indicated that resilience positively predicted LMX and TMX. Also, the findings of the study showed that LMX rather than TMX partially mediated the relationships of employee resilience with organizational commitment and job burnout.

2.5 Work Engagement (WE)

The concept of 'work engagement' has become a leading construct in the field of positive psychology (Bakker & Leiter, 2010). The construct was primarily conceptualized by Kahn (1990), as the employee's attachment or "harnessing" to their work (Attridge, 2009). Since its inception, researchers have demonstrated numerous positive outcomes of work engagement, including *job performance and team performance* (Song, Lim, Kang, & Kim, 2014; Yalabik, Popaitoon, Chowne, & Rayton, 2013); *organization citizenship behavior* (Gupta, Shaheen, & Reddy, 2017; Jena, Pradhan, & Basu, 2016); *organizational commitment* (Geldenhuys, Laba, & Venter, 2014; Jena, Pradhan, & Basu, 2016); *and job, career and life satisfaction* (Karatepe & Karadas, 2015). Engaged employees exhibit a strong and irresistible inner drive and are willing to ''go the extra mile'' to perform their work roles (Gorgievski, Bakker, & Schaufeli, 2010).

Previous research shows work engagement as a prime outcome along the motivational axis of the 'Job Demand-Resources' (JD-R) model (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). Research shows that engaged employees feel obligated and exhibit energy, perseverance, and focus to pursue and achieve challenging goals (Leiter & Bakker, 2010). Specifically, the engaged employees are willing to exert extra efforts to accomplish their goals, and thus, are ready to engross in additional in-role and extra-role behaviors (Rich, Lepine, & Crawford, 2010; Christian, Garza, & Slaughter, 2011). Researchers demonstrated that work engagement has also been found as a significant predictor of people's health (Halbesleben, 2010; Simbula & Guglielmi, 2013). Resonating this fact, Demerouti, Mostert, and Bakker (2010) reported that two components of work engagement, i.e., vigor and dedication were found to be negatively related with somatic and depressive symptoms, anxiety, insomnia, and social dysfunction.

2.5.1 Antecedents and Outcomes of Work Engagement

Over the years, the construct of 'work engagement' has garnered an increased attention from both organizational practitioners and academicians (Albrecht, Bakker, Gruman, Macey, & Saks, 2015). Consequently, researchers have shown accelerated interest in clarifying and describing the construct, investigating its antecedents and outcomes and differentiating it from related, though not identical constructs such as job satisfaction and organizational commitment (Bakker, Demerouti, & Sanz-Vergel, 2014; Christian, Garza, & Slaughter, 2011; Crawford, LePine, & Rich, 2010; Demerouti & Cropanzano, 2010).

A glance at the literature reflect a variety of factors that have been studied as critical ***antecedents to work engagement***. Previous studies have consistently shown that ***job resources*** namely social support from coworkers and supervisors, developmental feedback, skill variety, empowerment, and growth and learning opportunities significantly predict work engagement (Schaufeli & Salanova, 2007; Bakker & Demerouti, 2008). Halbesleben (2010) conducted a meta-analysis of work engagement studies and reported that social support, empowerment, positive feedback, and supportive organizational climate were positively associated with work engagement. Furthermore, the author suggested that among these job resources, autonomy showed the most significant relationship with work engagement.

Using a two-year longitudinal design; Mauno, Kinnunen, and Ruokolainen (2007) investigated the antecedents of work engagement and reported that job control, and organization-based self-esteem predicted work engagement and its three components, i.e., vigor, dedication, and absorption. Drawing on the tenets of Job-Demand Resources (J-DR) model, the study showed that job resources namely organization-based self-esteem and management quality are positively associated with work engagement. Earlier studies have shown that autonomy and skill variety significantly impacted work engagement (Shantz, Alfes, Truss, & Soane, 2013; Bakker & Demerouti, 2008). The 'Conservation of Resources' (COR) theory (Hobfoll, 2001) advocates that personal resources, for instance self-esteem, and optimism are useful in the attainment of additional individual resources.

Moreover, previous literature revealed that a positive and supportive work culture, which offer resources to employees, such as career opportunities, interpersonal relationships, co-worker support, participation in decision making, and skill variety have been found to be significantly linked with work engagement (e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Bakker, & Schaufeli, 2006). Research has shown that a workplace culture that nurture psychological conditions of meaningfulness (job enrichment and work-role fit); safety (supportive manager and co-workers); and availability (in terms of resources available) contribute to enhanced work engagement (Kahn, 1990; May, Gilson, & Harter, 2004).

Supporting the significance of psychological meaningfulness, safety, and availability in augmenting work engagement; Jacobs (2013) integrated the JD-R model and Kahn's models to test the impact of job features (i.e., person-job fit, autonomy, co-worker relations, supervisor support,

procedural justice and interactional justice), and personal characteristics (i.e., self-consciousness, self-efficacy, extraversion, and neuroticism) on work engagement through the psychological conditions of meaningfulness, safety, and availability. The study results revealed that psychological meaningfulness proved to be the strongest predictor of work engagement and partially mediated the relationships between all the job resources and work engagement.

Recently, Malik and Garg (2017a) developed a conceptual framework to advance theoretical understanding of the relationship between learning organization and work engagement. The study examined the effect of learning organization dimensions on work engagement in Indian information technology (IT) firms. The study results revealed that out of the seven dimensions of learning organization; four dimensions namely learning culture, inquiry and dialogue, and knowledge sharing structure exerted most significant predicting effects on work engagement. The study findings showed that vigor and dedication were most significantly predicted by embedded system and continuous learning opportunities of learning organization, whereas inquiry and dialogue exerted the most significant influence on absorption. The study results further demonstrated that organizations having better systems, structures and processes leads to enhanced levels of work engagement.

Moreover, Park, Song, and Lim (2016) examined the impact of organizational justice on work engagement. The study also investigated the mediating role of employees' self-leadership between organizational justice and work engagement relationship. The results indicated that organizational justice significantly effected both self-leadership and work engagement. Also, the findings of the study showed that self-leadership significantly influenced work engagement and partially mediated the effect of organizational justice on work engagement.

Jose and Mampilly (2015) examined the impact of perceived supervisor support and psychological empowerment on employee engagement in service sector organizations in India. The study results revealed that both perceived supervisor support and psychological empowerment positively influenced employee engagement. Also, the findings of the study indicated that psychological empowerment fully mediated the relationship between perceived supervisor support and employee engagement.

Focusing on the significance of meaning in work; Ghadi, Fernando, and Caputi (2013) examined the relationship between transformational leadership and work engagement. Additionally, the study

investigated the mediating effect of meaning in work among employees in Australia. The study results showed that the transformational leadership significantly influenced work engagement. Additionally, meaning in work partially mediated the relationship between transformational leadership and work engagement.

Furthermore, Othman and Nasurdin (2013) investigated the role of social support (i.e., supervisor support and co-worker support) in fostering work engagement among nurses working in general hospitals in Malaysia. The study results indicated that supervisor support was positively related to work engagement. However, the study found that co-worker support did not exert significant effect on work engagement. The study emphasized that supervisory support significantly influenced work engagement among nurses. The authors advocated that supervisory support can play an extrinsic motivational role for nurses, and emphasized that a supportive work environment drive an individual's readiness to contribute their efforts and skills to their work roles.

Chaudhary, Rangnekar, and Barua (2012) investigated the impact of occupational self-efficacy and Human Resource Development (HRD) climate on work engagement. The study results revealed that both HRD climate and self-efficacy significantly influenced work engagement. Also, the study found that HRD climate played a partial mediating role between occupational self-efficacy and work engagement relationship.

Correspondingly, Macey and Schneider (2008) demonstrated the role of positive organizational support in predicting work engagement. The authors advocated that the combination of a meaningful job role and a supportive work culture enhances work engagement. Specifically, when employees perceive their workplace culture as being positive and supportive of their well-being, they in turn exhibit higher levels of work engagement. Echoing a similar vein, Attridge (2009) suggested that organizations can adopt certain workplace practices that address supervisory communication, job design, corporate culture, and leadership style for enhancing work engagement.

Notably, besides job resources, research shows that *psychological capital (PsyCap)* significantly predict work engagement. For instance, Joo, Lim, and Kim (2016) investigated the impact of psychological capital (PsyCap) on work engagement. The study also examined the mediating role of work empowerment and moderating effect of authentic leadership on the relationship between psychological capital (PsyCap), and work engagement. The study results

indicated that psychological capital significantly influenced work engagement, i.e., higher the employees' psychological capital, higher would be their engagement levels. The study also found that work empowerment partially mediated the relationship between psychological capital and work engagement. Additionally, the findings of the study indicated that authentic leadership significantly moderated the relationship between psychological capital and work empowerment. However, authentic leadership did not show any moderating effect on the relationship between psychological capital and work engagement.

Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007a) examined the role of psychological capital, and personal resources, i.e., self-efficacy, organizational-based self-esteem, and optimism in predicting work engagement. Research has shown that motivating characteristics of the job (i.e., job resources), together with aspects of the personal resources play a vital role in augmenting work engagement (Bakker & Demerouti, 2008). Interestingly researchers have also found reciprocal relations, such that the presence of job resources, as well as personal resources leads to work engagement, which in turn results in attainment of more resources (Schaufeli, Bakker, & Van Rhenen, 2009; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

A glance at the existent literature shows research studies that demonstrated the effect of psychological capital on work engagement (Avey, Wernsing, & Luthans, 2008; De Waal & Pienaar, 2013; Nigah, Davis, & Hurrell, 2012). These studies assessed the effects of self-efficacy, hope, optimism, and resilience as the indicators of psychological capital on work engagement. Xanthopoulou et al. (2008) provided evidence that reflected a positive relationship between self-efficacy and work engagement among cabin attendants of a European airline company. Furthermore, Barkhuizen, Rothmann, and Vijver (2014) investigated the relationships among dispositional optimism, job demands and resources, burnout, work engagement, ill health, and organizational commitment among academic staff working in South African higher education institutions. The study findings revealed that dispositional optimism showed a significant direct effect on staff perceptions of job resources (e.g., supportive supervision, role clarity and task characteristics that allow autonomy, variety and achievement); as well as strong indirect effects (via job resources) on burnout, work engagement, ill health, and organizational commitment.

Additionally, Waddell (2015) investigated the relationship between resilience and work engagement among psychiatric nurses. The study results demonstrated a positive correlation between resilience and work engagement. The study offered vital implications that can assist organizations to recognize the need to accentuate resilience. Most importantly, the study advocated that when organizations invest in fostering employees resilient behaviors, this in turn could lead to enhanced work engagement.

Attesting the role of personal resources; Sweetman and Luthans (2010) have drawn on the tenets of the broaden-and-build theory (Fredrickson, 2001, 2003), and demonstrated that personal resources "build upon each other in order to create an upward spiral of resources which can lead to employee engagement" (Fredrickson, 2003). Furthermore, following conservation of resource theory (Hobfoll, 2001), Sweetman and Luthans (2010) advocated that the accumulation of personal resources (e.g., self-efficacy, optimism, and resilience etc.) valued by individuals likely enhance their work engagement. Xanthopoulou and colleagues also highlighted the vital role of personal resources (e.g., optimism, self-efficacy, and self-esteem) in enhancing work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007a). Also, existent research has shown that personal resources exert a significant impact on work engagement, which holds over a longer period of time (Bakker, 2011).

Moreover, while investigating the *consequences of work engagement*, previous research has shown that work engagement leads to numerous positive outcomes, such as *job performance* (Bakker & Bal 2010; Breevaart, Bakker, Demerouti, & Van den Heuvel, 2015); *innovative work behavior* (Agarwal, 2014); and *job satisfaction* (Espinoza-Parra, Molero, & Fuster-Ruizdeapodaca, 2015). Additionally, high work engagement alleviates turnover intention (Bakker & Demerouti, 2008; De Klerk & Stander, 2014); and results in enhanced in-role performance (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009); and extra-role behavior (Gupta, Shaheen, & Reddy, 2017).

The existent research indicates that *work engagement may be a core underlying mechanism that explicate an individual's wide range of behavioral and attitudinal outcomes* at workplace (Rich, LePine, & Crawford 2010; Christian, Garza, & Slaughter, 2011). For instance, Karatepe and Avci (2017) investigated the role of work engagement as a mediator on the influence of psychological capital (PsyCap) on lateness attitude and turnover intentions. The authors also examined lateness attitude as a mediator between work engagement and turnover intentions. The results emphasized

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that work engagement played a mediating role between psychological capital, lateness attitude, and turnover intentions. The results also highlighted that role lateness attitude exhibits a mediating effect on the relationship between work engagement and turnover intentions.

Furthermore, Shahpouri, Namdari, and Abedi (2016) investigated the mediating role of work engagement on the relationship between job resources (i.e., contingent rewards, social support, and organizational justice); personal resources (i.e., resilience, hope, optimism, and self-efficacy); and turnover intention. The study results demonstrated that personal resources affect turnover intention both directly and indirectly through the mediating effect of work engagement. In addition, the study results showed that work engagement mediated the relationship between job resources and individual's turnover intention.

In Indian organizational context, Gupta, Shaheen, and Reddy (2017) investigated the mediating effect of work engagement on the relationship between psychological capital (PsyCap), and the two facets of organizational citizenship behavior, i.e., Individual and Organization Citizenship Behavior-OCBI and OCBO. The study also examined the moderating role of perceived organizational support between psychological capital and work engagement, and between work engagement and the two facets of OCB (OCBI and OCBO). The study results found that work engagement significantly mediated the relationship between PsyCap and both OCBI and OCBO. Also, the study revealed that perceived organizational support played a significant moderating role between work engagement and the two facets of OCB (OCBI and OCBO).

Moreover, Pradhan, Dash, and Jena (2017) examined the relationship among HR practices, employee engagement, and job satisfaction in public sector undertakings in India. Additionally, the study examined the mediating effect of employee engagement on the relationship between HR practices and job satisfaction. The study findings demonstrated that HR practices showed a significantly positive relationship with job satisfaction. Furthermore, employee engagement was found to significantly mediate the relationship between HR practices and job satisfaction.

Furthermore, Espinoza-Parra, Molero, and Fuster-Ruizdeapodaca (2015) examined the relationship between transformational leadership and work satisfaction, with the mediating effect of group identification and work engagement on this association. The study findings revealed that both work engagement and group identification played a mediating role in the relationship between transformational leadership and work satisfaction.

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Moreover, Karatepe and Karadas (2015) examined the impact of psychological capital on job, career, and life satisfaction. The study also investigated the mediating role of work engagement on the relationship between psychological capital and job, career, and life satisfaction among frontline employees working in the hotels in Romania. The results suggested that employees who possess high psychological capital display enhanced work engagement. Moreover, employees high in psychological capital are more satisfied with their job, career, and life. The study results suggested that psychological capital foster work engagement that subsequently results in higher job, career and life satisfaction.

Additionally, Karatepe (2014) investigated the mediating role of work engagement on the relationship between hope and job performance, service recovery performance, and extra-role customer service among full-time frontline hotel employees in Romania. The study results suggested that work engagement fully mediated the impact of hope on job performance, service recovery performance, and extra-role customer service.

In Indian organizational context, Agarwal (2014) examined the impact of Leader-Member Exchange (LMX), perceived organizational support, and work engagement on employees' innovative work behavior. Additionally, the study investigated the moderating effect of LMX on the relationship between perceived organizational support and innovative work behavior. The study also tested the mediating effect of work engagement for explaining the relationship between predicting variables, i.e., leader-member exchange, perceived organizational support, and innovative work behavior. The study findings indicated that leader-member exchange, perceived organizational support, and work engagement significantly impacted innovative employee behavior. Furthermore, the study found that leader-member exchange moderated the relationship between perceived organizational support and innovative employee behavior. Also, the results showed that work engagement mediated the relationship between leader-member exchange, perceived organizational support and innovative work behavior.

Furthermore, Simbula and Guglielmi (2013) examined the longitudinal relationships between work engagement and mental-health problems, job satisfaction, and OCB in terms of reciprocal causality. The data was collected from 157 school teachers over a time lag of five months. The study results revealed that work engagement at Time1 (initial reported data) predicted mental-health problems, job satisfaction, and organizational citizenship behaviors at Time 2 (data reported after 5

months). Moreover, Time1 mental-health problems were negatively related to Time 2 work engagement, whereas Time1 job satisfaction and Time1 organizational-citizenship behaviors were positively related to Time 2 work engagement.

Alfes, Shantz, Truss, and Soane (2013) developed and tested a moderated- mediation model and examined the effect of perceived HRM practices on outcome variables, i.e., organization citizenship behavior and turnover intentions. The study examined the moderating effect of employee engagement on the relationship between HRM practices, organization citizenship behavior, and turnover intentions. Also, the study tested the moderating effect of perceived organizational support and leader-member exchange on the relationship between employee engagement and both organization citizenship behavior and turnover intentions. The study findings showed that employee engagement mediated the relationship between perceived HRM practices, and organization citizenship behavior, and turnover intentions. Moreover, the study found that both moderators, namely perceived organizational support and LMX interacted with employee engagement to predict organization citizenship behavior.

Also, Song, Lim, Kang, and Kim (2014) provided empirical evidence for demonstrating the mediating effect of employee engagement between team performance and learning organization in Korean firms. The study results showed that learning organization positively impact employee engagement and team performance. Also, it was found that learning organization indirectly affect team performance through employee engagement. Moreover, the study findings indicated that employee engagement fully mediated the relationship between learning organization and team performance.

In addition, Geldenhuys, Łaba, and Venter (2014) investigated the relationships between psychological meaningfulness, work engagement, and organizational commitment. Moreover, the study examined the mediation effect of work engagement on the relationship between psychological meaningfulness and organizational commitment. The study results showed a significant association between psychological meaningfulness, work engagement, and organizational commitment. Furthermore, the findings revealed that psychological meaningfulness significantly impacted work engagement, whereas the relationship between psychological meaningfulness and organizational commitment was partially mediated by work engagement.

Moreover, Park, Song, Yoon, and Kim (2014) investigated the relationship between learning organization, work engagement, and innovative work behavior. The study also examined the mediating effect of work engagement on the relationship between learning organization and innovative work behavior in Korean firms (manufacturing, construction, IT, and electronic). The study results indicated that learning organization culture significantly predicted employees' innovative work behaviors. The results also supported the mediating role of work engagement between learning organization and innovative work behaviors relationship.

Yalabik, Popaitoon, Chowne, and Rayton (2013) investigated the mediating role of work engagement on the relationships between affective commitment, job satisfaction, and employee outcomes (i.e., job performance and intention to quit). The study results suggested that work engagement mediated the relationships between affective commitment, and job performance, and intention to quit. Additionally, work engagement played a mediating role in the relationship between job satisfaction and job performance; and further partially mediated the relationship between job satisfaction and intention to quit.

Moreover, Diedericks and Rothmann (2013) examined the nexus between work role fit, availability of personal resources (i.e., availability of physical, cognitive, and emotional resources), supervisor relations, work engagement, job satisfaction, and employee flourishing working in information technology organizations in South Africa. The study results revealed that work role fit, trusting and supportive supervisor relations, and the availability of cognitive, emotional and physical personal resources significantly influenced both work engagement and job satisfaction. However, work role fit and personal resources showed the most significant effects on work engagement and employee flourishing. Furthermore, the study also found that work engagement impacted employee flourishing, and also mediated the relationship between work role fit and availability of personal resources and employee flourishing. The study emphasized that employees who lack personal resources do not fit in their work roles, exhibit poor rapport with their supervisors, and thence display low work engagement, and remain unsatisfied at work. Also, such employees possess lower mental health, and thus, don't flourish at their workplace.

Bhatnagar (2012) examined the relationship between psychological empowerment, work engagement, turnover intention, and innovation in Indian industries. The study findings showed that psychological empowerment significantly impacted work engagement and subsequently resulted in

high innovation and diminished turnover intention. The results also indicated that work engagement significantly mediated the relationship between psychological empowerment and innovation.

Karatepe (2012) investigated the mediating effect of work engagement on the relationship between co-worker and supervisor support, and career satisfaction, service recovery performance, job performance, and creative performance in frontline hotel employees and supervisors in Cameroon. The study results showed that work engagement fully mediated the effects of co-worker and supervisor support on career satisfaction, service recovery performance, job performance, and creative performance.

Chughtai and Buckley (2011) examined the mediating role of organizational identification and work engagement on the relationship between trust and outcome variables namely in-role job performance, organization citizenship behavior, and learning goal orientation. The findings of the study revealed that organizational identification and work engagement fully mediated the relationship between trust and in-role job performance. However, organizational identification and work engagement partially mediated the effects of trust on organization citizenship behavior and learning goal orientation. Also, Leung, Wu, Chen, and Young (2011) study conducted among Chinese hotel employees illustrated that work engagement fully mediated the relationship between workplace ostracism and service performance. Likewise, using a sample of Chinese hotel employees; Li, Sanders, and Frenkel (2012) reported that work engagement played a significant mediating role in the relationship between leader-member exchange and job performance.

Furthermore, Xanthopoulou et al. (2008) found that work engagement exerted a significant mediating effect on the relationship between work-related self-efficacy and in-role and extra-role performance. Moreover, Salanova and Schaufeli (2008) reported that work engagement fully mediated the relationship between job resources (i.e., job control, feedback, and variety), and proactive behavior at work. Saks (2006) also revealed that employee engagement partially mediated the relationships between job characteristics namely perceived organizational support, perceived supervisor support, rewards and recognition, procedural justice, and distributive justice; and employee engagement outcomes namely job satisfaction, organizational commitment, intention to quit, and organizational citizenship behavior. According to Bakker and Demerouti (2008), work engagement has been identified as a strong driver for enhancing employees' performance at

workplace. Although, to date literature lacks in examining the relationship between learning organization culture and work engagement.

Table 2.3 depicts the summary of previous research studies on work engagement. However, as it is evident from the abovementioned literature review that research to date lacks to offer empirical evidence demonstrating the role of employee resilience in augmenting work engagement. Furthermore, there is sparse and almost no research investigating the role of learning organization and employee resilience as antecedents to work engagement.

Table 2.3: Summary of Previous Studies on Work Engagement

Source/Study	Research design (Sample, setting, and methodology)	Variables {Antecedents [A], Mediator [M], Moderator [MO], Consequences [C]}	Findings
Chaudhary, Rangnekar, & Barua (2012) **Objective**- The study investigated the impact of occupational self-efficacy and Human Resource Development (HRD) climate on work engagement.	**Sample-**The sample consisted of 150 business executives from both public and private sector manufacturing and service organizations in India. **Methodology**- Structural Equation Modeling (SEM)	[A] Occupational self -efficacy [M] Human Resource Development (HRD) climate [C] Work engagement	The study results revealed that HRD climate and self-efficacy significantly impacted work engagement. Also, HRD climate partially mediated the relationship between occupational self-efficacy and work engagement.
Bhatnagar (2012) **Objective**- The study examined the relationship between psychological empowerment, work engagement, turnover intention, and innovation in Indian industries.	**Sample-**The sample comprised of 291 managers working in various industrial sectors in India (pharmaceutical, heavy engineering, IT, electronics and aeronautics engineering). **Methodology**- Structural Equation Modeling (SEM)	[A] Psychological empowerment [M] Work engagement [C] Innovation [C] Turnover intention	The study results showed that psychological empowerment influenced work engagement and subsequently resulted in high innovation and alleviated turnover intention. The results also revealed that work engagement mediated the relationship between psychological empowerment and innovation.
Karatepe (2012) **Objective**- This study investigated the mediating effect of work engagement on the relationship between co-worker and supervisor support and career satisfaction, service recovery performance, job performance, and creative performance.	**Sample-** Data were obtained from 212 frontline hotel employees in Cameroon. **Methodology**- Structural Equation Modeling (SEM)	[A] Co-worker support [A] Supervisor support [M] Work engagement [C] Career satisfaction [C] Service recovery performance [C] Job performance [C] Creative performance	The results revealed that work engagement fully mediated the effects of co-worker and supervisor support on career satisfaction, service recovery performance, job performance, and creative performance.

Yalabik, Popaitoon, Chowne, & Rayton (2013) **Objective**- This study examined the role of work engagement on the relationships between affective commitment, job satisfaction, and employee outcomes namely job performance and intention to quit.	**Sample-**The data was collected from 167 clerical employees working in banks in UK. **Methodology**- Structural Equation Modeling (SEM)	[A] Affective commitment [A] Job satisfaction [M] Work engagement [C] Job performance [C] Intention to quit	The study results revealed that work engagement mediated the relationships between affective commitment, and job performance, and intention to quit. Also, work engagement mediated the relationship between job satisfaction and job performance. Furthermore, the results showed that work engagement partially mediated the relationship between job satisfaction and intention to quit.
Rees, Alfes, & Gatenby (2013) **Objective**- This study examined the relationship between employee voice and employee engagement. Also, the study tested the mediating role of employee trust in management and employee line-manger relationship.	**Sample-** The data was collected from 2310 employees working in two UK service sector organizations. **Methodology**- Multiple Regression	[A] Employee voice [M] Employee trust in senior management [M] Employee-line manager relationship [C] Employee engagement	The study found that employees' favourable perceptions of voice behaviour significantly impacted employee engagement. Moreover, the findings revealed that both employee trust in senior management and employee-line manager relationship mediated the relationship between employees' perceptions of voice behaviour and employee engagement.
Ghadi, Fernando, & Caputi (2013) **Objective**- This study examined the relationship between transformational leadership and work engagement. Also, the study investigated the mediating effect of meaning in work on the relationship between transformational leadership and work engagement.	**Sample-** The sample comprised of 530 full-time employees working in Australia. **Methodology**- Structural Equation Modeling (SEM)	[A] Transformational leadership [M] Meaning in work [C] Work engagement	The study results revealed that the transformational leadership significantly influenced work engagement. Also, the findings indicated that meaning in work partially mediated the relationship between transformational leadership and work engagement.

Quiñones, Van den Broeck, & De Witte (2013) **Objective**- This study examined the mediating effect of psychological empowerment between job resources and work engagement.	**Sample-** The sample comprised of 133 Chilean public workers. **Methodology**- Preacher & Hayes PROCESS MACROS	[A] Job resources (task autonomy, skill utilization, social support from supervisors, and social support from colleagues) [M]Psychological empowerment [C] Work engagement	The results of the study indicated that job resources significantly influenced individual's psychological empowerment and work engagement. Moreover, the study found that psychological empowerment mediated the relationship between three job resources, i.e., task autonomy, skill utilization, and social support from supervisors and work engagement.
Diedericks & Rothmann (2013) **Objective**- This study investigated the relationship between work role fit, the availability of personal resources, supervisor relations, work engagement, job satisfaction, and employee flourishing. Also, the study investigated the mediating effect of work engagement and job satisfaction on the relationship between work role fit, personal resources, and flourishing.	**Sample-** The data was collected from 205 employees working in information technology organizations. **Methodology**- Structural Equation Modelling (SEM)	[A] Work role fit, [A] Personal resources (physical, cognitive and emotional resources) [A] Supervisor relations [M] Work engagement [M] Job satisfaction [C] Flourishing	The study results demonstrated that employees who lacked personal resources do not exhibit work role fit, and do not have good relations with their supervisors, and exhibited low engagement levels and lower mental health (flourishing). Also, the study found that work engagement and job satisfaction mediated the relationship between work role fit, personal resources, and flourishing.
Geldenhuys, Łaba, & Venter (2014) **Objective**- This study investigated the relationships between psychological meaningfulness, work engagement and organizational commitment. Also, the study tested the mediation effect of work engagement on the relationship between psychological meaningfulness and organizational commitment.	**Sample-** The sample consisted of 415 employees working in various companies in Gauteng, South Africa. **Methodology**- Structural Equation Modeling (SEM)	[A] Psychological meaningfulness [M] Work engagement [C] Organizational commitment	The results indicated a significant association between psychological meaningfulness, work engagement, and organizational commitment. Furthermore, psychological meaningfulness predicted work engagement, whereas work engagement mediated the relationship between psychological meaningfulness and organizational commitment.

De Klerk & Stander (2014) **Objective**- This study investigated the relationships between leadership empowerment behaviour, psychological empowerment, work engagement and turnover intention. Also, the study examined the mediating effect of psychological empowerment on the relationship between leadership empowerment behaviour and work engagement. Moreover, the study tested the mediating effect of work engagement on the relationship between psychological empowerment and turnover intention.	**Sample-** The sample consisted of 322 employees working in a chemical industry in South Africa. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Leadership empowerment behaviour **[M]** Psychological empowerment **[M]** Work engagement **[C]** Turnover intention	The study results demonstrated significant positive associations between leadership empowerment behaviour, psychological empowerment, work engagement; and a negative correlation with turnover intention. Also, the findings indicated that psychological empowerment mediated the relationship between leadership empowerment behaviour and work engagement. Though, psychological empowerment exerted no mediating effect on the relationship between leadership empowerment behaviour and turnover intention. Moreover, work engagement showed no mediating effect on the relationship between psychological empowerment and turnover intention.
Song, Lim, Kang, & Kim (2014) **Objective**- This study investigated the relationship between team performance, learning organization, and employee engagement. Also, the study examined the mediating effect of employee engagement on the relationship between learning organization and team performance.	**Sample-** The data consisted of 309 employees working in Korean for-profit firms. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Learning organization **[M]** Employee engagement **[C]** Team performance	The results revealed that learning organization significantly impacted employee engagement and team performance. Moreover, the findings indicated that employee engagement mediated the relationship between learning organization and team performance.

Agarwal (2014) **Objective**- This study examined the impact of Leader-Member Exchange (LMX), Perceived Organizational Support (POS), and work engagement on employees' Innovative Work Behaviour (IWB). Also, the study examined mediating role of LMX on the relationship between POS and IWB. Additionally, the study examined the mediating effect of work engagement on the relationship between LMX, POS and IWB.	**Sample-** The sample consisted of 510 managers working in service organizations based in western India. **Methodology**- Structural Equation Modeling (SEM)	[A] Leader-Member Exchange (LMX) [M] Work engagement [MO] Perceived Organizational Support (POS) [C] Innovative Work Behaviour (IWB)	The study findings revealed that LMX, POS, and work engagement were positively associated with innovative employee behaviour. Also, the study found that LMX moderated the relationship between POS and innovative employee behaviour. Moreover, the results indicated that work engagement mediated the relationship between LMX and IWB, as well as POS and IWB.
Frankenberger (2014) **Objective**-This study explored the relationships among work related stress, social support, work engagement, and resilience.	**Sample-** The sample comprised of 131 registered nurses working in emergency department. **Methodology**- Correlation analysis, ANOVA	[A] Work related stress [A] Social support [A] Work engagement [C] Resilience	The results of the study found that only work engagement predicted resilience. However, stress and social support did not contribute to resilience.
Jose & Mampilly (2015) **Objective**- This research examined the impact of perceived supervisor support and psychological empowerment on employee engagement.	**Sample-** The data was collected from 177 employees working in organizations in Central Kerala, South India. **Methodology**- Regression analysis	[A] Perceived supervisor support [M]Psychological empowerment [C] Employee engagement	The study results revealed that perceived supervisor support and psychological empowerment significantly impacted employee engagement. Also, perceived supervisor support positively influenced psychological empowerment. Moreover, the study indicated that psychological empowerment fully mediated the relationship between perceived supervisor support and employee engagement.

Lee & Ok (2015) **Objective**- This study investigated the impact of employee core self-evaluations and psychological climate components on work engagement.	**Sample-** The data were collected from 394 hotel line-employees and managers in the United States. **Methodology**- Hierarchical Multiple Regression analysis	[A] Core self-evaluations [A] Psychological climate components (customer orientation of the management, managerial support for service, internal service, and information sharing communication) [C] Work engagement	The study results showed that core self-evaluations and psychological climate components, i.e., customer orientation of the management, managerial support for service, internal service, and information-sharing communication significantly impacted work engagement.
Breevaart, Bakker, Demerouti, & Van den Heuvel (2015) **Objective**- This study examined the association between Leader-Member Exchange (LMX), job resources, work engagement, and job performance. Also, the study investigated the mediating effect of job resources and work engagement on the relationship between LMX and employee job performance.	**Sample-** The sample consisted of 847 Dutch police officers. **Methodology**- Structural Equation Modeling (SEM)	[A] Leader-Member Exchange (LMX) [M] Job resources (autonomy, developmental opportunities, and social support) [M] Work engagement [C] Job performance	The study results revealed that LMX was positively associated with all the job resources, work engagement, and job performance. Furthermore, job resources namely developmental opportunities and social support mediated the relationship between LMX and job performance. However, autonomy showed weakest mediating effect on the relationship between LMX and job performance. Also, work engagement fully mediated the relationship between LMX and job performance.
Shantz & Alfes (2015) **Objective**- This study examined the moderating role of job resources on the relationship between work engagement and voluntary absence.	**Sample-** The sample comprised of 325 employees working in the construction and consultancy organization in the United Kingdom. **Methodology-** Hierarchical Moderation analysis	[A] Work engagement [MO] Job resources (organizational trust, leader-member exchange, and the motivating potential of jobs) [C] Voluntary absence	The study results showed that work engagement was negatively associated with employees' voluntary absence. Additionally, the results revealed that organizational trust and the quality of employees' relationships with their line managers amended the negative effect of low engagement levels on employees' voluntary absence.

Espinoza-Parra, Molero, & Fuster-Ruizdeapodaca (2015) **Objective**- This study examined the relationship between transformational leadership and job satisfaction. Also, the study tested the mediating effect of group identification and work engagement on the relationship between transformational leadership and job satisfaction.	**Sample-** The sample consisted of 985 candidates in a police training process at a Chilean professional military institution. **Methodology**- Structural Equation Modeling (SEM)	[A] Transformational leadership [M] Group identification [M] Work engagement [C] Job satisfaction	The study results demonstrated a positive association between transformational leadership and job satisfaction. Also, the study found that both work engagement and group identification mediated the relationship between transformational leadership and job satisfaction.
Seppälä, Hakanen, Mauno, Perhoniemi, Tolvanen, & Schaufeli (2015) **Objective**- This study investigated the relationship between work engagement and job resources.	**Sample-** The data was collected from 1,964 Finnish dentists. **Methodology**- Structural Equation Modeling (SEM)	[A] Job resources (role clarity, supervisory support, positive organizational climate, and innovative climate) [C] Work engagement	The study results revealed a positive relationship between job resources (i.e., role clarity, supervisory support, positive organizational climate, and innovative climate), and work engagement.
Reis, Hoppe, & Schröder (2015) **Objective**- This study investigated the reciprocal effects between personal resources, job resources, engagement, and mental health.	**Sample-** The sample comprised of 326 psychotherapists and 550 students. **Methodology**- Structural Equation Modeling (SEM)	[A] Personal resources (hope, resiliency, and optimism) [A] Job resources (learning opportunities, autonomy, and task variety) [C] Work engagement [C] Mental health	The study findings indicated that all the job resources (i.e., learning opportunities, autonomy, and task variety); personal resources (i.e., hope, resiliency, and optimism); work engagement; and mental health showed direct reciprocal relationships.
Rana (2015) **Objective**- This study examined the relationships between high involvement work practices and employee engagement.	**Methodology**- Qualitative study	[A] High Involvement Work Practices (HIWPs) (power, information, reward, and knowledge) [C] Employee engagement	Based on the literature review, the current study advocated a significant relationship between the four high involvement work practices (i.e., power, information, reward, and knowledge), and employee engagement.

Karatepe & Karadas (2015) **Objective**- This study examined the impact of psychological capital on job, career, and life satisfaction. Also, the study investigated the mediating effect of work engagement on the relationship between psychological capital; and job, career, and life satisfaction.	**Sample-** The data was collected from frontline employees working in the international five- and four-star chain hotels in Romania. **Methodology**- Structural Equation Modelling (SEM)	[A] Psychological capital [M] Work engagement [C] Employee satisfaction (job, career, and life satisfaction)	The study findings indicated that psychological capital significantly influenced work engagement, and job, career, and life satisfaction. Moreover, the study found that work engagement mediated the relationship between psychological capital, and job, career, and life satisfaction.
Waddell (2015) **Objective**- This study examined the relationship between resilience and work engagement. The study also examined the role of age, level of education, years of practice, practice setting, and practice population in impacting the level of resilience.	**Sample-** The sample comprised of 91 psychiatric nurses. **Methodology**- Multiple Regression analysis	[A] Resilience [C] Work engagement	The study results demonstrated a positive association between nurses' years of practice and resilience. Also, the results revealed a significant association between resilience and work engagement levels.
Park, Song, & Lim (2016) **Objective**- This study examined the impact of organizational justice on work engagement. Additionally, the study investigated the mediating effect of employees' self-leadership on the relationship between organizational justice and work engagement.	**Sample-** The data were obtained from 237 employees in Korea. **Methodology**- Structural Equation Modeling (SEM)	[A] Organizational justice [M] Employees' self-leadership [C] Work engagement	The study findings showed that organizational justice significantly influenced self-leadership and work engagement. Also, the study found that self-leadership significantly impacted work engagement. Moreover, self-leadership partially mediated the relationship between organizational justice and work engagement.

Joo, Lim, & Kim (2016) **Objective**- This study examined the effect of psychological capital (PsyCap) on work engagement. The study also investigated the mediating role of work empowerment and moderating role of authentic leadership on the relationship between psychological capital and work engagement.	**Sample-** The sample comprised of 599 knowledge workers working in a Korean conglomerate. **Methodology**- Hierarchical Multiple Regression analysis	**[A]** Psychological capital **[M]** Work empowerment **[MO]** Authentic leadership **[C]** Work engagement	The study results indicated that psychological capital significantly impacted work engagement. Also, the study found that work empowerment partially mediated the relationship between psychological capital and work engagement. Additionally, authentic leadership moderated the relationship between psychological capital and work empowerment. However, authentic leadership does not exert moderating effect on the relationship between psychological capital and work engagement.
Shahpouri, Namdari, & Abedi (2016) **Objective**- This study investigated the impact of job resources and personal resources on turnover intention. Also, the study examined the mediating role of work engagement.	**Sample-** The data were collected from 208 female nurses. **Methodology**- Structural Equation Modeling (SEM)	**[A]** Job resources (contingent rewards, social support, and organizational justice) **[A]** Personal resources (resilience, hope, optimism, and self-efficacy) **[M]** Work engagement **[C]** Turnover intention	The study findings revealed that the personal resources impacted turnover intention both directly and indirectly through mediating effect of work engagement. However, job resources affected turnover intention through the full mediation role of work engagement.
Karatepe & Avci (2017) **Objective**- This study investigated the mediating effect of work engagement on the influence of psychological capital (PsyCap) on lateness attitude, and turnover intentions. The study also examined the mediating role of lateness attitude between work engagement and turnover intentions relationship.	**Sample-** The data were collected from 212 nurses working in public hospitals in Northern Cyprus. **Methodology-** Structural Equation Modeling (SEM)	**[A]** Psychological capital **[M]** Work engagement **[C]** Lateness attitude **[C]** Turnover intentions	The study results demonstrated that work engagement mediated the relationship between psychological capital, and lateness attitude, and turnover intentions. Also, the study found that role lateness attitude played a mediating role on the relationship between work engagement and turnover intentions.

Gupta, Shaheen, & Reddy (2017) **Objective-** This study examined the mediating role of work engagement between psychological capital (PsyCap) and both individual and organization citizenship behaviour. The study also tested the moderating effect of perceived organizational support on the relationship between psychological capital and work engagement; and work engagement and the two facets of OCB (OCBI and OCBO).	**Sample-** The sample comprised of 293 employees working in service sector industries in India. **Methodology-** Structural Equation Modeling (SEM)	[A] Psychological capital [M] Work engagement [MO] Perceived Organizational Support (POS) [C] Organization Citizenship Behaviour (individual and organization-OCBI and OCBO)	The study results demonstrated the mediating role of work engagement on the relationship between psychological capital and both the facets of OCB. Also, the study found that perceived organizational support moderated the relationship between work engagement and the two facets of OCB.
Young & Steelman (2017) **Objective**- This study investigated the impact of autotelic personality, feedback environment, and job autonomy on work engagement. Also, the study examined the mediating effect of psychological states (availability, meaningfulness, and safety) on the relationship between autotelic personality, feedback environment, and job autonomy and work engagement.	**Sample-** The data were collected from 284 employees working in various industries (education, financial services, health services, manufacturing, retail, government, and data processing) in U.S. **Methodology**- Hayes PROCESS (2013)	[A] Autotelic personality [A] Feedback environment, [A] Job autonomy [M] Psychological states (availability, meaningfulness, and safety) [C] Work engagement	The study results showed that psychological availability, feedback environment, job autonomy, and psychological states significantly impacted work engagement. Also, the study found that psychological availability and meaningfulness mediated the relationship between autotelic personality and work engagement.

2.6 Linking Learning Organization and Employee Resilience

Prior research emphasized primarily on investigating the role of learning organization in enhancing performance outcomes (for e.g., Akhtar, Arif, Rubi, & Naveed, 2011; Ho, 2011; Ponnuswamy & Manohar, 2016). However, with rapid globalization and technological cataclysms, it has become essential for organizations to focus on cultivating resilience among their employees for responding effectively to environmental changes (Wang, Cooke, & Huang, 2014). Specifically, this dissertation advocates that resilience could be developed as a skill among employees. Given the developmental nature of resilience, the imperative challenge faced by investigators is to identify the systems and practices for developing resilience among employees (Masten & Reed, 2002; Davis, Luecken, & Lemery- Chalfant, 2009). Addressing this critical gap, the present study postulates that learning organization might play a vital role in fostering employee resilience.

Although, to date, literature shows scarce research on any direct links between learning organization and employee resilience, earlier research provides evidence for supporting this assertion (Cooke et al., 2016; Cooper, Liu, & Tarba, 2014; Hodliffe, 2014; Tian et al., 2015). A glance at the literature to date, indicates inadequate research focusing on the construct of resilience in workplace context. There are minimal studies which investigated the development of resilience among employees, which have been conducted among nursing population across different countries.

For instance, McDonald, Jackson, Wilkes, and Vickers (2012) investigated the role of work based educational interventions in developing resilience. The study targeted population comprised of nurses and midwives working in an Australian health service organization. The authors reported that the work-based educational programs provided implications for developing resilience among nurses and midwives. The authors advocated that use of appropriate and flexible intervention methods would foster employees learning, which in turn would play a vital role in developing resilience. The study highlighted the role of positive and transformational learning experiences, customized learning programs and flexible facilitation methods in developing resilience.

Focusing on nurses working in the acute-care surgical inpatient units; Dalzell (2009) investigated ways to support and build resilience to deal with workplace change and adversity. The research findings reported the significance of an organizational culture that encourages *participatory decision-making, communication, social support, and teamwork in fostering resilience* (AbuAlRub, 2004; Erenstein & McCaffrey, 2007; Maddi, 1999). Furthermore, Pines et al. (2012) examined the

relationship between resilience, empowerment, and conflict management styles among nursing students. The study results found that *empowerment was significantly correlated with resilience.*

Resonating similar findings, previous research reported that organizations which offer *learning culture* to employees make them more flexible and prepared to successfully adapt to unexpected changes. This line of thought is echoed by Murray and Donegan (2003), who suggested that learning organizations foster favorable culture for innovation that improves the behavior and adaptive capability of individuals. The resilient capacity of employees is more likely to be enhanced by nurturing a learning organization culture, as it constantly encourage employees to address workplace challenges, and constantly find innovative ways of coping with changes (Sundblad, Älgevik, Wanther, & Lindmark, 2013). Specifically, when employees are constantly encouraged to find innovative ways to address changes at work, they are more likely to develop enhanced change readiness that consequently stimulate employee resilience.

The abovementioned assertion finds support from the recent study conducted by Malik & Garg (2017b) that investigated the relationship between learning organization dimensions (i.e., learning culture, inquiry and dialogue, and knowledge sharing structure), and employee resilience, and affective commitment to change. The study further examined the mediating role of employee resilience on the relationship between learning culture, inquiry and dialogue, knowledge sharing structure, and affective commitment to change. The research findings suggested that when organization offers learning culture, environment for inquiry and dialogue, and knowledge sharing structure, this subsequently foster development of resilience among employees that in turn generate affective commitment to change.

Echoing a similar vein, Karatepe and Karadas (2015) suggested that the availability of an ingenious working environment that provide training and career opportunities for employees, offers empowerment, and rewards likely stimulate employees' positive emotions, which in turn might promote the development of employee resilience.

Resonating a similar vein, Sweet (2012) demonstrated *significant relationship between psychological capital and the dimensions of a learning organization*. The study results revealed that three psychological capital components, i.e., hope, self-efficacy, and optimism showed significant

association with all the seven dimensions of the learning organization (i.e., continuous learning, inquiry and dialogue, collaboration and team learning, system sharing, empowerment, environment, and strategic leadership). Whilst, resilience showed positive relationship with only two dimensions of learning organization namely continuous learning and inquiry and dialogue.

Highlighting the vital role of autonomy and relatedness; Baird (2012) examined the mediating effects of the psychological needs (i.e., competence, autonomy, and relatedness) on the relationship between learning organization dimensions, and affective and normative organizational commitment among nursing population in the United States. The study findings indicated that psychological needs, i.e., *autonomy and relatedness* exerted a partial mediating effect on the relationship between learning organization dimensions and both affective and normative organizational commitment, however competence showed insignificant role as a mediating variable.

Furthermore, Lee et al. (2015) explored the resources that promoted the development of resilience among pediatric intensive care staff and nurses. The study also examined the relationship between resilience and demographic factor, i.e., years of experience among healthcare professionals. The findings reported that less experienced staff (in this study < 7 years) showed lower resilience than their more experienced peers. The study results revealed that the two resources which played a vital role in developing resilience were namely *'one on one discussions with colleagues'* and *'informal social interactions with colleagues out of the hospital'*. The authors further suggested that institutions should facilitate environment for peer discussions and social interactions to foster resilience.

The above-mentioned studies offer support for the association of learning organization and employee resilience. Learning organization offers an environment that facilitate environment for inquiries and dialogues between organizational members, which in turn enables flow of information, and foster a culture of participatory decision-making. Previous research reported that open, exhaustive and authentic communication helps in promoting employee trust in the organization that in turn fosters transparency between employees and organization (Rees, Alfes, & Gatenby, 2013). The constructive discussions among organizational members have been widely recognized as a crucial determinant for facilitating change processes in the organizations (Parkkinen, Lehtimäki, & Thatchenkery, 2015). Likewise, Thatchenkery and Metzker (2006) also stressed the significance of

appreciative inquiry and appreciative intelligence® in facilitating creativity and novel endeavors that aid employees to recognize the existing favorable development opportunities, despite facing challenging situations at work (Thatchenkery, 2013).

The existent research has shown that when employees are allowed to discuss their concerns and divergent opinions freely without any fear of negative repercussions, this augments employees' perception of value towards their organization (Smith, 2005). Furthermore, it helps in diminishing uncertainty and uninformed rumor mills among employees (DiFonzo & Bordia, 1998), which thus, encourage employees to take risk and in turn enhance their resilient capacity.

Echoing a similar vein, Ford (2006) also reported that creating learning organizations is an effective way of crafting innovative strategy that provides space for free communication and gives voice to decision-making processes. The cultivation of a learning organization culture has been shown to enhance innovation by facilitating open communication systems and strategies (Ford, 2006). The creation of the open process of sharing information creates an environment that is conducive to learning. When employees feel that a conversation or learning experience is not dominated by one individual, the information disclosed is more accurate and willingly shared. The ability to freely participate without any fear of retribution encourages openness and risk-taking on part of the individual, which in turn might generate resilience among employees.

Prior research revealed that the quality of the firm's relational system (Kahn, Barton, & Fellows, 2013) promote respectful interactions and mindfulness (Vogus & Sutcliffe, 2012); and psychological safety among employees (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). Researchers emphasized the role of strong systems of social support and positive organizational cultures in shaping resilience (for instance, Carmeli & Russo, 2016; Dawkins, Martin, Scott, & Sanderson, 2015; Jackson, Firtko, & Edenborough, 2007; Powley, 2009).

In a similar direction, Siebert (2006) explored factors for strengthening workplace resilience and highlighted that development of supportive collegial relationships at work played a key role in developing resilience. These relationships provide support, guidance, and motivation to employees that enhance their skills and knowledge, which consequently contribute to the development of resilience.

Primarily, Watkins and Marsick (1993, 1996) reported that learning organization culture encourages collaboration and foster team learning in the organizations. Employees learn how to work collaboratively through teams and take unified action to achieve shared goals (Watkins & Marsick, 1993, 1996; Marsick & Watkins, 2003). 'Team learning' encourage employees to learn through the process of knowledge interaction, integration and foster social connections (Senge, 1990; Gnyawali & Stewart, 2003). Social connections have been reported as a crucial factor in producing resilience (Van der Vegt, Essens, Wahlström, & George, 2015).

Moreover, learning organization creates and implements shared vision (Marsick & Watkins, 1999) through empowering its members. Employees in the organization are involved in setting, holding and executing the collective vision of the organization, and are held responsible for decisions in the organization. A participative culture enhance employees' willingness to perform for their organization and in turn foster congruence of employees personal values with those of the organization (Tripathi, Kapoor, & Tripathi, 2000). Literature supports the fact that providing employees with a participative role make them feel valued, and in turn employees develop feelings of appreciation. Furthermore, participation in decision making encourage employees to exhibit commitment and loyalty towards the organization, and nurture mutual trust, and co-operation among employees (Burnes & James, 1995). Research has shown that when organizations empower their employees, this subsequently enhance employees' adaptive capacity contributing to employee resilience (Hodliffe, 2014).

Also, learning organizations offer information sharing systems, where information can be acquired, stored, retrieved and managed (Huber, 1991), and disseminated widely within the organization. Providing access to information fosters a clear vision among employees of where the organization is heading in future and what roles are expected from them. When organization provides employees free access to information, this in turn motivates them and provides them with the means to become more adaptive. For working effectively in the current turbulent environment, employees require timely and accurate access to the information to accomplish tasks.

Browning, Edgar, Gray, and Garrett (2009) advocated that information sharing structures foster feelings of worth among employees that subsequently triggers favorable attitude among employees.

Furthermore, effective communication and diffusion of accurate information reduce resistance, ambiguity, and anxiety among employees (Bordia et al., 2004).

According to Bordia et al. (2004), information sharing enhance perceptions of control among employees, since it foster awareness about what is happening in the organization. Therefore, it is expected that free access to information will provide employees with the required information, and thence will make them more prepared, and in turn could lead to the development of resilience among employees.

Dalzell (2009) advocated that creating a work environment that shares information helps employees to develop a core ability to be open and support them to adapt to changes more effectively. This is also supported by Hodliffe (2014), who reported that learning culture, empowering leadership, employee participation, and corporate communication played a crucial role in fostering employee resilience.

Moreover, the extent to which employees are allowed to participate in the decision-making build employees trust in management and sequentially affect their attitude towards organizations (Lines, Selart, Espedal, & Johansen, 2005; Oreg, 2006; Stanley, Meyer & Topolnytsky, 2005). Research suggested that empowered employees deal more effectively with changes and are more supportive and adaptable (Gill, 2002). When employees feel empowered in their environment, they would be more able to identify and access the required information, and could utilize their cognitive skills (e.g., problem-solving), participate in their community, and possess a sense of purpose.

Furthermore, Bommer, Rich, and Rubin (2005) stated that participation opportunities enhance employees' perceived trustworthiness for their leaders. When employees are enabled to participate in change procedures, they are more likely to perceive an enhanced sense of empowerment, exhibit change readiness, and lead to heightened resilient capability. Given this fact, it might be posited that empowered individuals would likely exhibit heightened resilient levels. Echoing a similar vein, previous research has shown that when organizations foster a participative environment, provide learning and development opportunities for employees, and ensemble employees roles and tasks to larger organizational missions and purposes, it subsequently promotes resilience among employees (Hodliffe, 2014, Cooke et al., 2016).

Earlier studies reported that when leaders support learning, provides developmental feedback, and nurture a supportive and trusting climate; employees in turn perceive feelings of safety in their workplace (Schaufeli, Bakker, & Van Rhenen, 2009). Wilson and Ferch (2005) also suggested that caring relationships at workplace might play a vital role in fostering employee resilience. Leaders might play a vital role in promoting resilience among employees by providing recognition to employees, while also offering opportunities to learn and improve. Researchers affirm that when leaders empower employees, enhance their participative capacity, and offer opportunities for upgrading their skills, it boosts employees self-confidence (Arnold, Sharon, Rhoades, & Drasgow, 2000; Gill, 2002). When employees perceive enhanced self-efficacy and worth, they are likely to perceive a more positive outlook towards change, and thus become resilient (Harland, Harrison, Jones, & Reiter-Palmon, 2005).

Learning or strategic leaders shape, improve and support employees learning to create change and lay pavement for both employees and employers organizations to achieve better results. A leader who communicates a positive view and share experiences helps employees to exhibit more resilient attitude and response (Bartone, 2006). As leaders are the catalysts and communicators of the change processes, it becomes essential that they empower and motivate employees to buy in the change strategy and support them to enhance their resilient abilities (Gilley, 2005).

Therefore, grounding on the existent research findings, this study assert that learning organization culture will significantly impact employee resilience (see *Figure 1.1*).

2.7 Linking Employee Resilience and Work Engagement

Over the past decade, work engagement has prompted substantial interest among both the scholars and practitioners (Bakker, Demerouti, & Sanz-Vergel, 2014; Quiñones, Van den Broeck, & De Witte, 2103; Ghadi, Fernando, & Caputi, 2013). Researchers have reported significant implications of work engagement on employees' attitude and discretionary workplace behaviors, job performance, and affective commitment (Breevaart, Bakker, Demerouti, & Van den Heuvel, 2015; Quiñones, Van den Broeck, & De Witte, 2103; Yalabik, Van Rossenberg, Kinnie, & Swart, 2015).

Previous literature shows evidence of the liaison of psychological factors and work engagement, however, research is still inadequate for supporting the role of employee resilience as a driver of

work engagement (Wefald & Downey, 2009). Previous studies reported that work engagement, job resources, as well as personal resources have been linked reciprocally. For instance, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) found that job resources (e.g., empowerment, supervisors support and development feedback, and development opportunities); and personal resources (e.g., self-efficacy and optimism) predicted work engagement. Prior research has primarily focused on individual differences (e.g., self-efficacy), and affirmed that it influence work engagement (Chaudhary, Rangnekar, & Barua, 2011). However, minimal research studies have investigated the role of employee resilience in influencing work engagement. Contemporary scholars (for instance, Fletcher & Sarkar, 2012; Hodliffe, 2014; Winwood, Colon, & McEwen, 2013) have noted that resilience plays a significant role in promoting work engagement. Nevertheless, there is scant literature that examined the relationship between employee resilience and work engagement.

Although, few researchers have investigated the link between psychological capital and work engagement (Avey, Wernsing, & Luthans, 2008; De Waal & Pienaar, 2013; Nigah, Davis, & Hurrell, 2012), nonetheless these studies assessed the effect of resilience as a component of psychological capital. Karatepe (2014) investigated the impact of psychological capital components (i.e., hope, self-efficacy, optimism, and resilience) on work engagement that subsequently contributed to service recovery performance, job performance, and extra-role customer service. However, the author examined resilience as a component of psychological capital, rather considering it as a distinct construct. Despite the fact that resilience has been considered significant for individual functioning in organizations (King, Newman, & Luthans, 2016), measuring resilience construct through the paradigm of psychological capital offers insufficient evidence for claiming its operational role in augmenting work engagement.

Notably, there is minimal research that explored the role of resilience as a unique construct in driving work engagement. In fact, prior research considered resilience as a cognitive component of work engagement (Salanova, Agut, & Peiró, 2005), which overshadows the role of resilience as an antecedent to work engagement. No literature till date, had examined the relationship between employee resilience and work engagement in IT organizations in India. Nevertheless, studies on the construct of resilience in workplace have been majorly conducted on the nursing population in Western context.

For instance, Waddell (2015) examined the relationship between resilience and work engagement among nurses in United States. The study also investigated the role of demographic factors, i.e., age, level of education, years of practice, practice setting, and practice population in impacting nurses' level of resilience. The study results demonstrated a positive correlation between an individual's years of practice as a nurse and resilience, and resilience and work engagement.

Following a similar direction, Roberts (2016) explored the relationship between resilience, work engagement, and innovative work behavior. The target population for the study was non-management employees working in for-profit companies in United States. The study found a significant relationship between resilience and work engagement and innovative work behavior. The study further advocated that HR practitioners must focus on building employee resilience for enhancing work engagement. Furthermore, the author called for future research to recognize the structures, policies, practices, and leadership styles for developing resilience among employees.

Focusing on the role of psychological capital, Karatepe and Karadas (2015) investigated the effect of psychological capital on job, career, and life satisfaction among employees in Romania. Additionally, the authors examined the mediating effect of work engagement on the relationship between psychological capital and job, career, and life satisfaction. The study results indicated that when employees perceive high psychological capital, they exhibit elevated work engagement levels. Moreover, employees with high psychological capital demonstrated higher job, career, and life satisfaction. The study results further suggested that psychological capital boosts work engagement that consequently leads to high job, career, and life satisfaction.

Furthermore, highlighting the vital role of resilience in driving positive outcomes; Fletcher and Sarkar (2012) examined the relationship of resilience with performance excellence among Olympic athletes. The authors emphasized that resilience was chiefly studied in clinical settings, and scant literature is available on the benefits of resilience in the active pursuit of challenging goals. The study highlighted that the ability to manage stress and the capacity to overcome obstacles contributed to high levels of achievement, which are significantly related to resilience (Fletcher & Sarkar, 2012). The authors stated that resilience levels could regenerate, which in turn could lead to positive outcomes for individuals.

A glance at the literature reflect that resilient employees not only cope through challenges, but possess additional skills to successfully navigate through workplace adversities. For instance,

resilient individuals possess numerous positive attributes, such as optimistic and energetic outlooks (Block & Kremen, 1996), curiosity, and openness to new experiences (Waugh, Fredrickson, & Taylor, 2008). Moreover, in addition to quick recovery ability, resilient employees exhibit proactive learning and growth while successfully adapting to workplace challenges (Youssef & Luthans, 2007).

Consequently, energetic and confident employees show higher readiness to face challenges at workplace, which ultimately reinforce work engagement. Moreover, research shows that resilient employees are more capable to build quality relationships, and social support at work (Fredrickson, Tugade, Waugh, & Larkin, 2003). The presence of social support and meaningful relationships have been reported to be significantly associated with work engagement (Christian, Garza, & Slaughter, 2011; Kahn, 1990). Thus, resilient employees endure adversity, develop meaningful work relationships, and possess optimistic life perspectives that evoke enhanced levels of work engagement. Earlier research have also shown that a resilient employee not only demonstrates a high level of performance, but also exhibits high intellectual and problem solving capacity (Youssef & Luthans, 2007; Luthans, Norman, Avolio, & Avey, 2008), which in turn might boost work engagement.

The current study posits that employee resilience foster work engagement, since resilient employees' exhibit confidence in their capabilities and perceive their workplace as ingenious and propitious, which ultimately boost work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007a). For e.g., Bakker, Gierveld, and Van Rijswijk (2006) demonstrated that resilience contributed to the motivational process and generated engagement among school principals in primary teaching. Sweetman and Luthans (2010) reported that psychological capital generated work engagement through positive emotions. Waddell (2015) investigated the link between resilience and work engagement among health care nurses and found that both positive emotions and hope facilitated goal directed behavior, which influenced work engagement (Ouweneel, Le Blanc, Schaufeli, & Van Wijhe, 2012).

Moreover, Karatepe and Olugbade (2009) found that employees with strong belief in their abilities become more engrossed in their work. Specifically, energetic employees show deep

involvement and are fully enthralled in their work roles. Cooke et al. (2016) highlighted the role of employee resilience in fostering work engagement in banking industry in China.

Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007a) proposed that, "individuals who are confident about their capabilities and optimistic about their future may identify or even create more aspects of their environment that facilitate goal attainment. This capability leads to goal confrontation and consequently to work engagement". Accordingly, when employees are resilient, they are likely to be more vigorous, strongly involved in work, and engrossed in their work roles. Such employees make an evaluation of what they can and cannot achieve in challenging situations (Luthans, Youssef, & Avolio, 2007), and bounce back from setbacks, and adapt to challenging situations (Avey, Wernsing, & Luthans, 2008). This could be explained by drawing on Fredrickson's broaden-and-build theory (Fredrickson, 2001; Fredrickson & Joiner, 2002). This theory state that positive emotions enhance the capacity to broaden individual's momentary thought-action repertoires and build their personal resources through widening the fleet of thoughts and actions that come to mind. This broadening build personal resources at social, physical, intellectual, and psychological levels. These personal resources in turn act as reserves to elicit work engagement.

Therefore, drawing on the findings of previous research, the study hypothesizes that employee resilience will significantly impact work engagement (see *Figure 1.1*).

2.8 Linking Learning Organization and Work Engagement

Over the years, researchers have intensely focused on the personal and job-related antecedents to work engagement (Xanthopoulou, Demerouti, & Schaufeli, 2009; Bakker & Demerouti, 2007; Chaudhary, Rangnekar, & Barua, 2011). However, despite the numerous studies on work engagement, research on drivers of work engagement is still inadequate and lacks a cohesive direction (Wefald & Downey, 2009). Till date, literature lacks in explaining the underlying mechanism of how learning organization culture contributes to work engagement.

Literature shows inadequate studies on specific organizational contexts as antecedents to work engagement. It is also evident by Bakker, Albrecht, and Leiter's (2011) review on work engagement that, "we need to pay more attention to the broader contextual organizational factors that impact engagement". Inceoglu and Warr (2011) also argued that work engagement results from both the

individual and organizations environmental factors. As Macey, Schneider, Barbera, and Young (2009) further noted that, "the antecedents of work engagement are located in conditions under which people work and the consequences are thought to be of value to organizational effectiveness". With this precept, this study explored the relationship between learning organization and work engagement.

To date, literature revealed significant associations between learning organization and several outcomes (Song, Chermack & Kim, 2013). For instance, Bennet and O'Brien (1994) found elevated productivity in companies which integrated the learning organization model. Moreover, Rose, Kumar, and Pak (2009) demonstrated a strong positive relationship between organizational learning, organizational commitment, job satisfaction, and work performance. However, there is a need of adequate research for examining the existence and practicality of this concept in augmenting work engagement (Ali, 2012). To date, literature has been silent on the link between learning organization and work engagement. Due to this gap in empirical research on the relationship between learning organization and work engagement, there is limited support in the related literature for the constructed hypothesis.

Prior studies highlighted the significant role of organizational resources on work engagement (for e.g., Bakker & Demerouti, 2007; Saks, 2006; Schaufeli, Bakker & Van Rhenen, 2009). According to the study conducted by American Society for Training and Development (ASTD), an ingenious learning culture, development of interpersonal relationships, supportive and skilled leaders who readily allocate resources and willingly undertake coaching play an essential role in augmenting work engagement (cited in Park, Song, Yoon, & Kim, 2014).

Echoing a similar vein, Lee and Ok (2015) reported that core self-evaluations and psychological climate components namely customer orientation of the management, managerial support for service, internal service, and information-sharing communication significantly influenced work engagement.

Furthermore, a glance at the literature shows that there are only few studies till date that explored the link between learning organization and work engagement (e.g., Park, Song, Yoon, & Kim, 2014; Malik & Garg, 2017a; Song, Lim, Kang, & Kim, 2014). Recently, Malik and Garg (2017a) examined the effect of learning organization on work engagement in Indian IT firms. The study results revealed

that learning organization dimensions showed varied predicting effects on work engagement. The study results indicated that vigor and dedication were most significantly predicted by embedded system (organization level) and continuous learning opportunities (individual level) dimensions of learning organization, whereas inquiry and dialogue (individual level dimension of learning organization) showed the most significant influence on absorption.

Supporting the association between learning organization and work engagement; Park, Song, Yoon, and Kim (2014) investigated the relationship between learning organization, work engagement, and innovative work behavior in Korean firms (manufacturing, construction, IT, and electronic). Additionally, the authors examined the mediating effect of work engagement on the relationship between learning organization and innovative behavior. The study results revealed that learning organization culture significantly impacted employees' innovative work behaviors. Also, the findings indicated that work engagement fully mediated the relationship between learning organization and innovative work behaviors.

In addition, Song, Lim, Kang, and Kim (2014) investigated the relationships among learning organization, employee engagement, and team performance in Korean firms. The study also assessed the mediating effect of employee engagement on the relationship between learning organization and team performance. The study results showed that learning organization positively and directly influenced employee engagement and team performance, whereas employee engagement exerted a full mediating effect on the relationship between learning organization and team performance.

Moreover, Uday Bhaskar and Mishra (2014) explored the impact of learning organization dimensions on work engagement in IT organizations in India. The study results showed that two learning organization dimensions namely system connecting and empowerment significantly predicted work engagement.

The relationship between learning organization and work engagement finds support from previous research studies, which claimed that when organizations offer employees with abundant resources and opportunities for learning, self-enhancement, and professional advancement, this in turn foster work engagement (Rowden & Conine, 2005). The key driver of work engagement is the employee feelings of being valued and involved. Research shows that when employees are involved in decision-making, and are given opportunities to voice their opinions, this in turn fuel employees

perceptions that the company cares about their health and well-being (Robinson, Perryman, & Hayday, 2004, cited in Waddell, 2015). When employees perceive that their decisions can significantly impact their work environment, and they are being treated as key stakeholders; employees are encouraged to develop a shared vision and began to drive pleasure from their work roles. Conceptually, learning organization culture does not only offer core organizational variables, such as job resources and leadership (i.e., knowledge capturing systems, system connection, and strategic leadership), rather also provide learning opportunities, environment for free communication and team collaboration, foster shared vision among employees through empowerment, which in turn might play a vital role in augmenting work engagement.

Learning organization offers continuous learning opportunities to employees (Marsick & Watkins, 1999). Previous research shows that continuous learning opportunities aid in skill advancement and career development of employees that in turn might foster work engagement (Purushothaman, 2015). Bakker and Demerouti (2008) reported that development opportunities generate work engagement by satisfying competence need of employees. Additionally, research shows that career growth and development opportunities motivate employees, and henceforth, are essential for work engagement (Murthy & Abeysekera, 2007; Rich, Lepine, & Crawford, 2010).

Furthermore, learning organization fosters environment for inquiry and dialogues, which enable employees to share their opinions freely with the higher management (Alfes, Shantz, Truss, & Soane, 2013). Research found that when employees are enabled to freely share their opinions and ideas irrespective of hierarchical boundaries, this in turn elicit higher levels of work engagement (Rees, Alfes, & Gatenby, 2013). Moreover, research has shown that communication activities which accentuate interaction, discussion, and debate among employees foster work engagement (Goodman & Truss, 2004; Harter, Schmidt, & Hayes, 2002). Sanders and Frenkel (2011) also indicated that employees are benefitted from discussions and debates in organizations. Existent literature shows that when organizations cultivate a working culture that boosts communication among employees and management, and encourage employees to question the ongoing working patterns, and voice their concerns, this in turn enhance employees perceptions of safety (Rees, Alfes & Gateby, 2013), which has been reported as a significant antecedent to work engagement (Kahn, 1990).

Moreover, literature shows that co-worker interactions that are supportive and rewarding foster feelings of belongingness and psychological safety among employees (Bakker & Demerouti, 2008), which is a crucial factor in generating work engagement. Leiter and Bakker (2010) suggested that work engagement is influenced by interpersonal relationships, whilst at the same time exhibiting spill-over effect, influencing others' engagement through interactions at workplace. Attridge (2009) reported that organizational support and resources, leadership style, and corporate culture can act as crucial influencing agents for work engagement.

Furthermore, Marsick and Watkins (1999) emphasized that learning organization culture ensemble employees' roles and tasks to larger organizational missions and purposes and foster a shared vision among employees. Literature shows that when organizations foster shared vision, it enhance work meaningfulness, and thus, increase the opportunities for engagement to occur (Bunderson & Thompson, 2009; Duffy & Sedlacek, 2007). Moreover, learning organizations allow employees to acquire and share information and provide opportunities for mutual learning at the workplace (Marsick & Watkins, 1999). Browning, Edgar, Gray, and Garrett (2009) advocated that information sharing structures foster feelings of worth among employees, which subsequently triggers favorable attitude among employees that in turn boost work engagement (Kuvaas & Dysvik, 2010).

Additionally, learning organization provide strategic leaders, who not only support employees to develop skills and capabilities, but also provide plenty of challenging learning opportunities to employees followed by developmental feedback (Marsick & Watkins, 1999). Previous research demonstrated that leaders can actively develop employees' capacity, motivation, and freedom to engage (Macey, Schneider, Barbera, & Young, 2009). Also, study claimed that when managers are trustworthy and respectful, this in turn boost work engagement (MacLeod & Clarke, 2009, cited in Alfes, Shantz, Truss, & Soane, 2013). MacLeod and Clarke (2009) insisted that company leadership must communicate a clear strategy, purpose, and vision and detail how employees contribute to each of them. This vision must be transparent at all levels of the organization and guide all aspects of the work. Leaders themselves must be engaging and treat staff with dignity and respect, and should show appreciation by recognizing and rewarding employees who perform well and show commitment to the organization (Alfes, Shantz, Truss, & Soane, 2013). Specifically, employee views and opinions should be sought out and incorporated into the organization's decision-making processes.

A glance at the extant literature shows that when leaders support employees learning, offers developmental feedback, and nurture a supportive and credible working climate; employees are more likely to develop feelings of worth in their workplace that consequently generate work engagement (Schaufeli, Bakker, & Van Rhenen, 2009). According to McCambridge (2008) learning environment and the sharing of ideas induce excitement among employees that generate work engagement (cited in Wetherington, 2010). Senge (2006) emphasized that learning organization helps employees become excited, energized, and engaged in their work. Thus, learning organization culture might significantly contribute to work engagement.

Therefore, based on the aforementioned literature, it appears logical to propose that learning organization will significantly impact work engagement (see *Figure 1.1*).

2.9 Learning Organization and Work Engagement- Mediating role of Employee Resilience

Despite the burgeoning literature on the construct of learning organization in the management discourse, there is scant research investigating the impact of learning organization and employee resilience on work engagement. The question persists till date, as to whether learning organization can contribute to employee resilience and subsequently fuel work engagement. To date, there is minimal literature that addressed the link between learning organization, employee resilience, and work engagement, which thus, calls for further investigation. This dissertation examined the impact of learning organization on work engagement via a mediational pathway in the form of employee resilience.

A number of studies have shown that employees become engaged when they are offered with organizational resources, such as, leaders support and developmental feedback, autonomy, working flexibility, recognition and rewards, and an environment of trust and loyalty (Kuvaas & Dysvik, 2010; Rees, Alfes & Gatenby, 2013; Menguc, Auh, Fisher, & Haddad, 2013; Aguinis, Gottfredson, & Joo , 2012). It has been reported that employees' shows higher level of work engagement when they are provided with continuous opportunities to grow and develop within an organization (Glen, 2006).

Echoing a similar vein, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) found that job resources (i.e., empowerment, supervisors' support and development feedback, and development

opportunities), and personal resources (i.e., self-efficacy and optimism) predicted work engagement. Furthermore, Cooke et al. (2016) highlighted the role of employee resilience in fostering work engagement in banking industry in China.

A glance at the literature shows that motivating characteristics of the job (i.e., job resources), together with aspects of the self (i.e., personal resources) have been found to play a vital role in enhancing work engagement (Bakker & Demerouti, 2008). Interestingly reciprocal relations have also been found, such that not only the presence of particularly job resources but also personal resources influence work engagement, which subsequently result in accumulation of more resources at workplace (Luthans et al., 2006; Schaufeli, Bakker, & Van Rhenen, 2009; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009).

Resonating the similar findings, Luthans et al. (2006) suggested that a meaningful and ingenious working environment that offers adequate job resources promotes the development of personal resources. Conversely, Judge, Erez, and Thoresen (2000) demonstrated that personal resources (e.g., optimism and self-efficacy) influence an employee's evaluation of his or her working environment. The higher the employees' positive self-evaluations, the more positive would be their perceptions of job resources, such as, autonomy or task variety. Both these researchers advocated that personal resources and job resources mutually affect each other. These study results also finds support from 'conservation of resource theory' (Hobfoll, 2001) that posits that a resourceful working atmosphere encourage gain spirals, which lead to the accumulation of resources over time, and in turn, positively affect other resources.

Previous studies have shown that when employees perceive that their contributions are being valued by their employers, they in turn demonstrate positive attitudes and behaviors towards their work roles (Saks 2006; Kuvaas & Dysvik, 2010). Specifically, organizations working climate send explicit and tacit signals to employees about the extent to which they are being valued and trusted, which in turn motivate employees to develop feelings of obligation toward employers, and subsequently reciprocate through demonstrating positive behaviors at workplace (Purcell & Hutchinson, 2007). In essence, it can be affirmed that when employees perceive their organization to be one that offers a learning culture, they will in turn be more likely to demonstrate higher levels of work engagement.

Resonating a similar direction, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2012) proposed that an enriched working environment offering empowerment, supervisory training, and the supportive climate enhance employees' positive emotions, which in turn contribute to the generation of individual's personal resources (i.e., self-efficacy, self-esteem, and optimism). Specifically, employees who exhibit high psychological capital feel more enthusiastic and devoted, and in turn stay happily immersed in their work. Employees in a resourceful work environment are reported to be more self-efficacious and are goal- and task oriented.

Moreover, Olivier and Rothmann (2007) reported that 'when organizations offer the physical, emotional, and cognitive resources to employees, they will become highly engaged in their work roles and may disengage in the absence of these imperative resources'. Researchers emphasized that learning organization culture not only develop employees skills and capabilities, but also influence the employees level of efforts at workplace and commitment towards the organization (Bhatnagar, 2007; Malik & Garg, 2017b).

The abovementioned fact finds support from the study of Park, Song, Yoon, and Kim (2014), which reported that learning organization influence work engagement in Korean firms (manufacturing, construction, IT, and electronic). Also, Song, Lim, Kang, and Kim (2014) provided empirical evidence of the mediating effect of employee engagement between team performance and learning organization culture in Korean firms.

Supporting the mediating role of employee resilience, Cooke et al. (2016) examined the relationships among high-performance work system, employee resilience, and employee engagement in the Chinese banking industry. The study findings suggested that employee resilience mediated the relationship between high-performance work system and employee engagement.

Furthermore, literature shows that resilient employees not only cope through challenges, but also possess additional skills to successfully navigate through workplace adversities. For instance, resilient individuals possess numerous positive attributes, such as, optimistic and energetic outlooks (Block & Kremen, 1996), and curiosity and openness to new experiences (Waugh, Fredrickson, & Taylor, 2008). Consequently, energetic and confident employees show higher readiness to face challenges at workplace that ultimately reinforce work engagement.

Previous research indicates that resilient people are more capable to face unprecedented changes and adapt effectively to challenging roles, tasks, and situations (Shin, Taylor, & Seo, 2012). Resilience support employees to buffer against stress and allow them to adapt to stressful and dynamic environments (Rutter, 2006). Researchers have demonstrated that resilience positively effect work engagement (Karatepe & Olugbade, 2009; Paek, Schuckert, Kim, & Lee, 2015).

Wagnild and Collins (2009) advocated that all individuals have a beginning level of resilience that can be strengthened and demonstrated that levels of resilience can grow in settings that enable the use of coping skills and resources. As resilience level is strengthened, the individual's engagement in work can also correspondingly increase. In other words, the strengthening process progresses as an individual faces a challenge, meets it, and in doing so, gains more experience and expertise in problem-solving, which enhances engagement level (Wagnild & Collins, 2009).

Ragusa and Crowther (2012) study provided significant implications and added to the knowledge of resilience and work engagement. The study demonstrated that mental health nurses become engaged in their work, as a result of their resilience that is developed by the interaction of people and the work itself.

In addition, Hodliffe (2014) reported that employee resilience leads to higher levels of engagement. Schaufeli and Bakker (2010) also highlighted that when organizations offers growth and development programmes to its employees, this in turn foster employee resilience.

Moreover, research shows that resilient employees are more capable to build quality relationships and social support at work (Fredrickson, Tugade, Waugh, & Larkin, 2003). The presence of social support and meaningful relationships have been reported to be significantly associated with work engagement (Christian, Garza, & Slaughter, 2011; Kahn, 1990). The dissertation posits that learning organization culture may prove to be a significant trigger for fostering resilience among employees (Blasdel, 2015). Specifically, when employees exhibit higher resilience at workplace, it triggers an "upward-spiral" of psychological resources, which foster work engagement (Fredrickson, 2001).

This can be explained by drawing on the tenets of the Fredrickson's broaden-and-build theory (1998), which suggests that the organizational practices that offer autonomy, competency, and

meaningfulness should upsurge experiences of positive emotions among employees. In turn, positive emotions such as exuberance and pride expand individual's ambit of perceptions, which results in the development of personal resources, encompassing physical and psychological resources over time. Given this fact, the study posits that learning organization should invoke ambit of positive emotions among employees such as love, joy and pride by providing a wide range of resources. These positive emotions have been shown to generate employee resilience and work engagement (Frederickson, 1998). Previous research have also reported a significant association between positive emotions and work engagement (Bakker & Demerouti, 2008).

Thus, the present study hypothesize that employee resilience will mediate the relationship between learning organization and work engagement. For the purpose of assessing the mediating role of employee resilience between learning organization and work engagement as the consequence, this study tested the hypothesized model presented in *Figure 1.1*.

2.10 Chapter summary

Despite the fact that mounting researches have demonstrated the positive outcomes of work engagement (Rich, Lepine, & Crawford, 2010; Christian, Garza, & Slaughter, 2011), research still lacks to offer empirical evidence on the role of learning organization and employee resilience as antecedents to work engagement. The primary concern in this dissertation is not the potential individual or organizational benefits that appear to follow from an engaged workforce, but rather with the antecedents to work engagement, and in particular on the roles of learning organization and employee resilience in predicting work engagement. Though, a bulk of literature demonstrates the impact of learning organization on organizational performance and broader range of other factors, but there is scant research to date that investigated the impact of learning organization on employee resilience and work engagement. Thus, addressing this crucial gap in the literature, this dissertation propose that there exist both *(i) a direct relationship between learning organization and work engagement,* and *(ii) an indirect relationship between learning organization and work engagement, mediated by employee resilience.*

Drawing on the findings of previous research that demonstrated the beneficial effect of positive and supportive work environments on individual and organizational outcomes (Biggs, Brough, & Barbour, 2014; O'Driscoll & Brough, 2010), the present study affirmed that employee perceptions

of a learning organization culture will have a significant impact on employee resilience and work engagement. Specifically, when organizations focus on cultivating a workplace culture that foster employees' well-being and is committed towards employees' continual improvement and growth, this in turn will more likely generate a highly resilient and engaged workforce over time.

Most importantly, existent research on work engagement have predominantly focused on proximal job characteristics as precursors to work engagement (Hakanen & Roodt, 2010). Also, literature indicates that most notable personal resources that have been linked to work engagement include self-efficacy, optimism, and self-esteem. However, there are minimal studies that investigated the role of employee resilience in fostering work engagement. So far, no study till date has analyzed the impact of learning organization and employee resilience on work engagement. Hence, the central aim of this dissertation is to provide a more unified approach by exploring the relationship between learning organization culture, employee resilience, and work engagement. The study findings might offer pivotal strategies for practitioners for developing a resilient and engaged workforce, and thus, will bolster the academic case for an increased focus on benefits of building learning organizations.

Chapter 3

Research Methodology

3.1 Overview of the Chapter

This chapter delineates the methodology and research procedures used in the current study. Firstly, the chapter outlines the overall research design of the study, including research hypotheses, participants, sampling procedure and data collection. It further describes the instruments used for data collection and demonstrates the statistical methods used for data analyses.

3.2 Research Hypotheses

The research hypotheses proposed for this study are:

H1. Employees' perceptions of a learning organization culture significantly impact their resilience at work.

H2. Employees with high levels of resilience exhibit greater levels of work engagement.

H3. Employees' perceptions of a learning organization culture significantly influence work engagement.

H4. Employee resilience significantly mediate the influence of learning organization culture on work engagement.

3.3 Sample of the study

The sample population of this study comprised of 330 middle level IT managers from selected Indian IT organizations. The IT companies were chosen based on the listing of National Association of Software and Services Companies (NASSCOM, 2015b) annual report with financial turnover (in INR) as a base for classification. In the current sample of the study, the companies are classified as, companies with 100-1,000 million are small-scale companies; 1,000-5,000 million are medium-scale companies; 5,000-10,000 million are large-scale companies. First, drawing on this list, large-scale IT/ITES organizations were chosen as unit of analysis. Next, considering the time and cost constraints, large-scale IT/ITES organizations located in 8 Indian states and union territory, which are recognized as IT hubs of India were selected in order to ensure research feasibility. The final sample of this study comprised of 330 middle level IT employees.

Figure 3.1: Hypothesized model delineating relationship between the study variables.
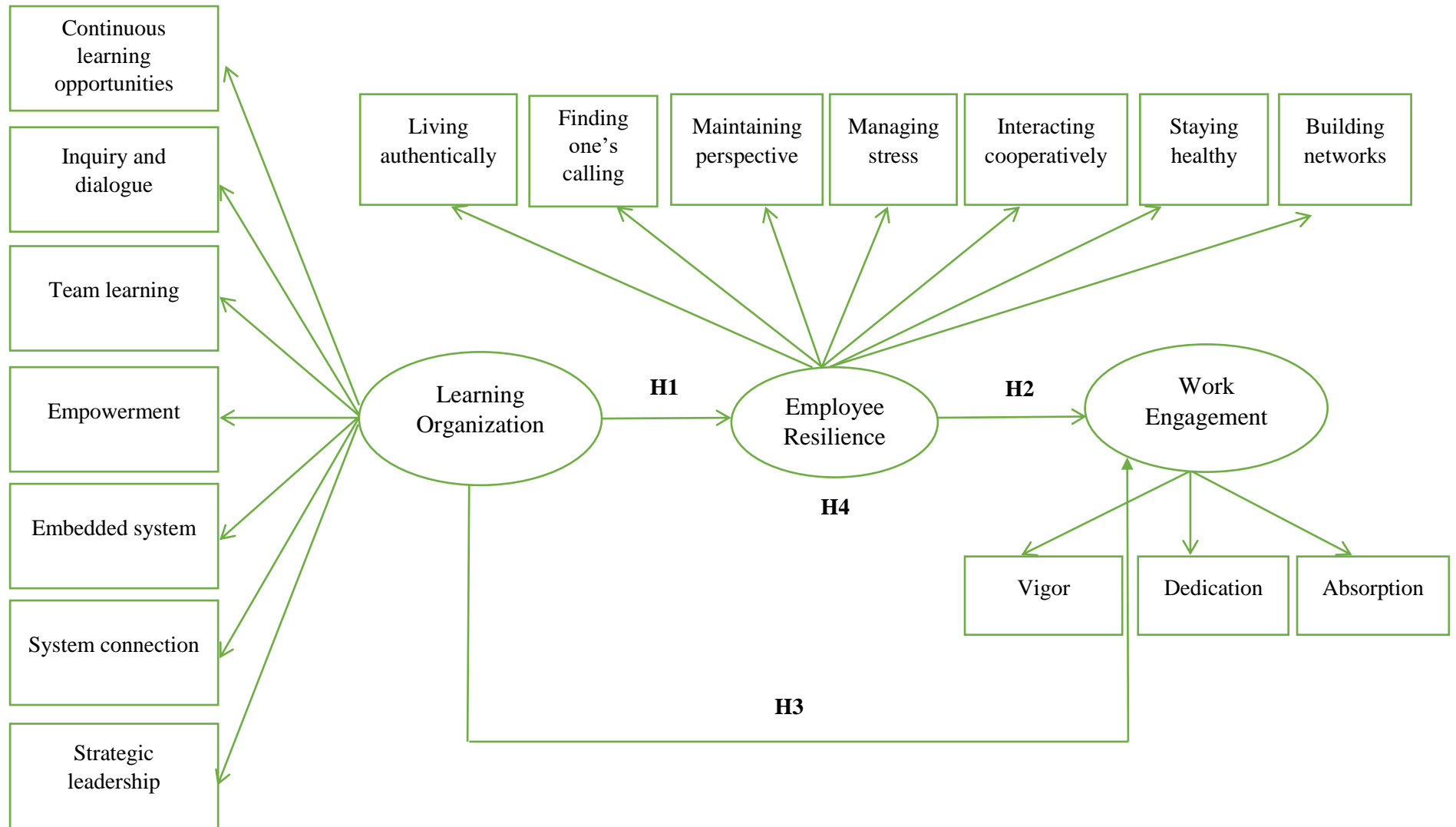
3.4 Sample procedure and Data collection

The sample was drawn using non-probability convenience sampling method. In the first step, large-scale IT/ITES companies located in 8 Indian states and union territory, which are considered as IT hubs of India were chosen as unit of analysis. Selection of cities from these states were made on the basis of their recognition as IT hubs of India. The cities include: National Capital Region of Delhi, Pune, Mumbai, Bangalore, Hyderabad, Chennai, Bhubaneswar, and Kolkata. The heads of human resource department of these selected IT companies were approached to seek their approval for conducting survey, and was sent a letter describing the study and inviting participation. A total of 450 middle level managers working in these large-scale IT/ITES organizations offered to participate in the survey. For maintaining confidentiality, the questionnaires were distributed and collected by the HR personnel.

The survey sheets comprised a cover letter which explained the research motive and the respondents were asked to complete their surveys and submit their response sheets in sealed envelopes to their respective human resource managers. Follow-up emails were sent to the respondents electronic mail account to complete the survey after two weeks of the delivery of the questionnaire. Out of 450 survey sheets, 400 were returned, giving a response rate of 89%. Twenty incomplete survey sheets were rejected, leaving 380 for further analysis. The data was then scrutinized for missing values and outliers and after the deletion of missing data and outliers, 50 survey sheets were rejected further, leaving 330 usable surveys for conducting data analysis. Thus, the final sample of this study comprised of 330 IT employees. This number of participants were found to be the adequate sample size for the present study. A statistical power analysis was conducted using SPSS Sample Power Version 3.0 (IBM® SPSS® SamplePower) to determine the minimum sample size for conducting data analysis (Cohen, 1977). A power of 0.80 and p value of 0.05 was applied to calculate the sample. Through power analysis, the required sample size was calculated to be 246. A final sample (N = 330), thus, satisfies the requirements for all statistical procedures. Following these guidelines, final sample of this study (N=330) seems adequate for further analysis.

The current study focuses on the middle level IT managers as the sample population. Middle level managers experience a significantly higher levels of stress in their daily work, and occupy a unique organizational position, and thus, are expected to exhibit higher resilience, and must be capable to foster resilience in others. Middle level managers are responsible to direct the employees to execute the plans laid down by the higher management, leads a project, secure resources, facilitate progress, and communicate with key stake holders. This in turn results in a

relatively higher performance pressure on middle level managers (Paddock, 2016). Notably, middle management is crucial to every organization's success, as they play a key role in designing an innovative and creative workplace environment, and keep their entire team excited, engaged, and motivated (Paddock, 2016; Quick, Macik- Frey, & Cooper, 2007; Wharton University, 2011).

Thus, focusing on middle level managers is highly suited to our goals to provide novel empirical evidence regarding the relationship between learning organization, employee resilience, and work engagement. Thus, given their dynamic role, their self-reported assessments might be able to suggest practitioners to seek interventions by cultivating learning organization culture to enhance engagement level of employees. Thus, this study chose middle level managers as the respondents.

3.4.1 Demographic Information of Respondents

Personal information section included gender, age, marital status, educational qualifications, and work experience. *Table 3.1* shows the demographic information of the study participants. Out of 330 respondents, 70% were male and 30% female. In terms of the age distribution, 43.93% were aged less than 30 years, 32.72% belongs to 30-39 years, and 18.48% belongs to 40-49 years and 4.84% were aged 50 years and above. Out of 330 respondents, 64.84% were married while 35.15% were single. In terms of work experience, 30.90% had less than 5 years of work experience, 45.45% had 5-10 years of work experience, while 23.63% had more than 10 years of working experience. In terms of education qualification, 51.21% percent were graduates and 48.78% percent of them were postgraduates.

Table 3.1 Demographic Characteristics of the Participants

		Number	% of total
Total		330	100
Gender			
	Male	231	70%
	Female	99	30%
Age			
	Less than 30 years old	145	43.93%
	30-39 years old	108	32.72%
	40-49 years old	61	18.48%
	50 years old or more	16	4.84%
Marital Status			
	Married	214	64.84%
	Single	116	35.15%
Education			
	Graduate or less	169	51.21%
	Postgraduate or above	161	48.78%
Work Experience			
	<5	102	30.90%
	5-10	150	45.45%
	10<	78	23.63%
Total		330	100

Source: primary data (N=330)

3.5 Measures

3.5.1 Learning Organization

Employee perceptions of the learning organization culture were measured by using Yang, Watkins, and Marsick's (2004) 'Dimensions of the Learning Organization questionnaire' (DLOQ) scale comprising 21 items. Yang, Watkins, and Marsick (2004) performed a broad series of exploratory and confirmatory factor analyses and determined that a reduced 21-item instrument is a superior measurement model to the original 43-item model. The DLOQ assessment tool allow members of organization to examine the extent to which their organizations embrace the practices and beliefs associated with the seven action imperatives of learning organization culture (Marsick & Watkins, 1999, 2003; Watkins & Marsick, 1993, 1996). The DLOQ measure respondents' perception on seven learning organization dimensions, which comprises 21 items relating to seven dimensions, namely continuous learning opportunities, inquiry and dialogue, team learning, empowerment, embedded system, system connection, and strategic leadership. Participants were asked to assess the extent to

which each one of the 21 items applied to his/her organization with a seven-point Likert Scale, ranging from 1=never to 7=always.

(i) Continuous learning opportunities- This measure the extent to which an organization offer continuous learning opportunities for all of its members (e.g., In my organization, people are given time to support learning).

(ii) Inquiry and dialogue- This measures an organization's effort in fostering a culture of questioning, feedback, and experimentation (e.g., In my organization, whenever people state their view, they also ask what others think).

(iii) Team learning- This measures an organization's effort to foster the spirit of collaboration and collaborative skills among its members (e.g., In my organization, teams/ groups have the freedom to adapt to their goals as needed).

(iv) Empowerment- This measures an organization's effort in creating and implementing a shared vision among its members (e.g., My organization gives people control over the resources they needed to accomplish their work).

(v) Embedded system- This measures an organization efforts to establish systems to capture and share learning (e.g., My organization creates systems to measure gaps between current and expected performance).

(vi) System connection- This measures the degree to which an organization reflects global thinking and take actions to connect to its internal and external environment (e.g., My organization works together with the outside community to meet mutual needs).

(vii) Strategic leadership- This measure the extent to which leaders think strategically to shape, improve, and support learning to create change and to move the organization in new directions to achieve better results (e.g., In my organization, leaders mentor and coach those they lead).

In the present study, the internal consistency reliability estimates (Cronbach's alpha) for each of the sub-scales were observed as follows: continuous learning opportunities, $\alpha= 0.87$; inquiry and dialogue, $\alpha= 0.84$; team learning, $\alpha= 0.81$; embedded system, $\alpha= 0.89$; empowerment, $\alpha= 0.85$; system connection, $\alpha= 0.86$ and strategic leadership, $\alpha= 0.82$. Reliability estimates for the combined DLOQ scale was $\alpha = 0.85$.

3.5.2 Employee Resilience

Questions in this section dealt with the general feelings of participants about their resilience. Employee resilience was measured using 'Resilience at Work (RAW) scale' developed by Winwood, Colon, and McEwen (2013), on a 7- point Likert scale ranging from 1= strongly disagree to 7= strongly agree. The scale contains 20 items and categorized into seven components:

(i) Living authentically- This factor measures the extent to which individuals hold onto their personal values, deploy their personal strengths, and exhibit emotional awareness and regulation (e.g., I have important core values that I hold fast to in my work-life).

(ii) Finding your calling- This factor measures the degree to which employees perceive their work to be purposeful and hold a sense of belonging and a fit with core values and beliefs (e.g., The work that I do helps to fulfil my sense of purpose in life).

(iii) Maintaining perspective- This factor measures the respondents' capacity to reframe setbacks, maintain a solution focus, and manage negativity (e.g., Nothing at work ever really 'fazes me' for long).

(iv) Managing stress- This factor measures individuals ability to manage everyday stressors, maintain work life balance, and ensure time for relaxation (e.g., I have developed some reliable ways to deal with the stress of challenging events at work).

(v) Interacting cooperatively- This factor measures the degree to which respondents seek feedback, advice, as well as provide support to others (e.g., I often ask for feedback so that I can improve my work performance).

(vi) Staying healthy- This factor measures the degree to which respondents maintain their physical fitness and a healthy diet (e.g., I have a good level of physical fitness).

(vii) Building networks- This factor measures individuals ability of developing and maintaining personal support networks (which might be both within and outside the workplace) (e.g., I have a strong and reliable network of supportive colleagues at work).

In the present study, the internal consistency reliability estimates (Cronbach's α) for each of the sub-scales were observed as follows: living authentically, α = 0.84; finding your calling, α = 0.78; maintaining perspective, α = 0.76; managing stress, α = 0.83; building social connections, α = 0.77; and staying healthy, α = 0.80. Reliability estimates for the combined RAW scale was α = 0.81.

3.5.3 Work Engagement

Work engagement was measured using the 9-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli, Bakker, and Salanova (2006) that captured the level of perceived work engagement of the employees. The Utrecht Work Engagement Scale (UWES-9) comprised three sub-dimensions of work engagement, namely vigor, dedication, and absorption with three items each. Briefly, vigor refers to the levels of positive energy and the voluntary willingness to invest their efforts for their tasks. Dedication examines the level of enthusiasm and proudness about their tasks, as well as positive feelings inspired and challenged by the tasks. The absorption assesses the levels of the general happiness with their work. Several related studies confirmed that the short version of the UWES showed acceptable applicability in terms of item internal consistency and construct factor structure (Seppälä et al., 2009). The work engagement questionnaire was rated on a seven-point frequency-based scale (1=Never to 7=Always).

(i) *Vigor*- measure respondents' perceptions of positive affect in them in terms of positive energy and mental resilience (e.g., At my job, I feel strong and vigorous).

(ii) *Dedication*- measures the emotional framework of engagement, respondents' perceptions of significance and meaningfulness of work (e.g., I am proud of the work that I do).

(iii) *Absorption*- measures the extent to which respondents are engrossed in their work roles (e.g., I feel happy when I am working intensively).

In the present study, the internal consistency reliability estimates for each of the sub-scales were observed as follows: vigor, $\alpha = 0.91$; dedication, $\alpha = 0.85$; and absorption, $\alpha = 0.89$. Reliability estimates for the combined UWES scale was $\alpha = 0.88$.

3.6 Control Variables

As the major objective of the present study is to investigate the impact of learning organization on employee resilience and work engagement, several demographic variables were controlled to rule out alternative explanations for the findings. This study included employees' gender, age, marital status, education, and work experience as control variables in this study. Gender has been found to be related to engagement, with women reported to be more engaged than men (Truss et al., 2006;

Alfes et al., 2010). Respondents were asked whether they were male or female. Employees' gender was modeled as a categorical variable (0 - female, 1 - male). Age was measured as a continuous variable. Education was modeled as a categorical variable (0 =graduation or below, 1= post-graduation or above). Employee work experience was measured as years in service and was modeled as a continuous variable.

3.7 Data Analysis

Collected responses were analyzed by using SPSS©21 and AMOS©21. Before proceeding with the analysis, data were checked for missing data, outliers, normality (using skewness and kurtosis statistic), and multicollinearity (using variation inflation factor).

Skewness and kurtosis scores were calculated to measure the collected data normality. Variance inflation factor (VIF) score was calculated to determine the multicollinearity issue (the calculated VIF should remain below 10).

After ensuring that the data was fit for further proceedings, analysis was carried out further. In the *first stage,* measures were subjected to Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to test the factor structures of the scales utilized in the study. *Second,* the descriptive statistics were calculated which included the means, standard deviations, and correlation coefficients among the study variables and their sub-items. Further, the Cronbach's alpha scores were calculated to measure the reliability of the study measures, followed by an examination of the convergent and discriminant validity of the measurement scales (Anderson & Gerbing, 1988; Bagozzi & Yi, 1988; Fornell & Larcker, 1981).

After confirming the reliability and validity of the scales, the measurement model was tested with alternative nested models to gauge the fit of the model (James, Mulaik, & Brett, 2006). The data was also analyzed for common method bias using Harman's 1-factor test, as all the variables in this study were collected from a single source, and hence, common method bias can pose a serious threat (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). In the *third stage*, after confirming the model fit, Hayes and Preacher MACROS (2011) was employed to test the study hypotheses. Detailed descriptions of the study results are given in *Chapter 4.*

Results and Discussion

4.1 Overview of the Chapter

This chapter describes the methodology embarked for data analysis and demonstrates the results of study hypotheses that guided this research. To analyze the data, SPSS$^©$ and AMOS$^©$ software (IBM Corp. Released 2012, version 21.0, Armonk, NY: IBM Corp.) were utilized. This chapter elucidates the methodology in five sections: *First*, the responses to the study measures were screened for missing values, outliers, and tested for normality. *Second,* the data were subjected to factor analysis (both exploratory and confirmatory factor analysis) for assessing the factor structures of the scales utilized for the study. *Third,* the descriptive statistics including mean, standard deviation, and correlation coefficients of the study variables were calculated. *Fourth,* Cronbach's alpha values were calculated to assess the reliability of the scales and confirmatory factor analysis was utilized to test the validity of the measurement scales. Further, the measurement model was tested with alternative nested models to gauze the model fit of the study's hypothesized model (James, Mulaik, & Brett, 2006). Additionally, the data was also analyzed for common method bias using Harman's 1-factor test, since all the variables in this study were collected from a single source, and hence, common method bias can pose a serious threat (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). *Fifth,* Hayes and Preacher MACROS (2011) was employed to test the study hypotheses.

4.2 Data screening

Prior to data analyses, several pre-tests were undertaken in order to account for missing values, outlier detection, and normal distribution to ensure that statistical analyses yield non-contrived results. Missing data were treated using list-wise deletion that involves the removal of the entire participant from the analysis, if any scale item response is absent. Tabachnick and Fidell (2007) affirmed that it is common to exclude the cases from the analysis when the number of missing cases is small ($< 5\%$), as the case in the present study. In the event of nonresponse to any question or otherwise missing data in a survey, the entire participant survey response was omitted from the study, which aligns with Rässler, Rubin, and Schenker's (2008) simple method of discarding incomplete responses. The method of putting some values, such as the mean, into the missing cases (as suggested by Tabachnick and Fidell (2007) was avoided because it might have resulted in the misrepresentation of findings especially in smaller sample sizes. McDaniel (2007) also advocated the same approach.

Next, the data were screened for detecting outliers using the Mahalanobis D^2 test, which measures the distance of a case from the centroid (multidimensional mean) of the variance distribution (Z-value ranges within │3.0│). Given the covariance of the distribution, nine extreme outliers were detected and excluded from the final data set (Kline, 2005), which resulted in the final data set (N=330) for further analysis.

Furthermore, according to the central limit theorem (Schneeberger, 2009), basic normal distributions of the data were assumed (N=330). Skewness and Kurtosis statistics were examined for ensuring normal distribution of the collected data. Data normality is usually estimated by the measure of its shape, i.e., skewness (symmetry of the distribution), defined as skewedness index between -2.0 and 2.0, and kurtosis (peakness/flatness of the distribution) index value between -7.0 and 7.0 (Kline, 2005). The calculated skewness values ranges from -0.160 to 0.273, which indicated no normality concern (Tabachnick & Fidell, 2007). Also, kurtosis statistics centered between -0.514 and 1.616 for each study variable. Thus, none of the study variables were found to violate the specified range of normality, and thus, confirms the normal distribution of the data. Furthermore, normality of the data was also confirmed by the Shapiro-Wilk test that is commonly used by statisticians and is typically tested at α=0.05 level of significance. Given that p-value was found to be 0.128 for work engagement, which is greater than α=0.05, which reflect that the null hypothesis was accepted, and thus, the results concluded that the sample were drawn from a normally distributed population.

Moreover, to ensure that study sample is free from multicollinearity issue, which could result from a higher level of inter-construct correlation estimates, data was empirically examined using variance inflation factor (VIF). According to Cohen, Cohen, West, and Aiken (2003), VIF value of greater than 10 indicates the presence of multivariate collinearity. However, Denis (2011) has suggested that VIF value of greater than 5 should be considered as cutoff criteria. None of the VIF value was found to be out of the acceptable range. Furthermore, Durbin-Watson value=1.969, confirmed that no auto (serial) correlation violation was found in the study. Hence, multi-collinearity was not a threat in the dataset. ***Table 4.1*** shows the calculated values for normality and multicollinearity coefficients for research scales.

Table 4.1: Normality and Multicollinearity Coefficients for research scales.

N= 330	Skewness		Kurtosis		VIF
Variables	**Statistic**	**S. E**	**Statistic**	**S. E**	
Learning organization	0.188	0.114	1.616	0.217	1.652
Employee resilience	-0.160	0.114	-0.514	0.217	1.881
Work engagement	0.273	0.114	0.647	0.217	1.953

(Source: Primary data, N (Number of participants) =330; S.E, standard error; VIF, variance inflation factor; $p < 0.05$)

4.3 Factor analysis of instruments

4.3.1 Confirmatory Factor Analysis (CFA) of Learning Organization (LO) scale

Yang, Watkins, and Marsick (2004) proposed a seven factorial structure for 'Dimensions of Learning Organization Questionnaire' (DLOQ) scale. The seven dimensions of learning organization scale are continuous learning opportunities, inquiry and dialogue, team learning, embedded system, empowerment, system connection, and strategic leadership.

The DLOQ scale has been utilized and extensively validated in a number of researches in varying organizational contexts (Rus, Chirică, Raţiu, & Băban, 2014; Jafari & Kalanaki, 2012; Jamali, Sidani & Zouein, 2009; Dekoulou & Trivellas, 2015). The efficacy of the DLOQ measurement scale has been verified in several recent empirical studies conducted *across divergent global contexts* (e.g., Basim, Sesen, & Korkmazyurek, 2007; Hernandez & Watkins, 2003; Shipton, Zhou & Mooi, 2013; Watkins & Dirani, 2013; Yaşlıoğlu, Şap, & Toplu, 2014; Youzbashi & Mohammadi, 2012). For instance, *Chinese context* (e.g., Lien, Hung, Yang, & Li, 2006; Wang, 2005; Zhang, Zhang, & Yang, 2004); *Lebanese context* (e.g., Dirani, 2009; Jamali & Sidani, 2008); *Korean context* (e.g., Park, Song, Yoon, & Kim, 2014; Song, Lim, Kang, & Kim, 2014); and *Indian context* (e.g., Awasthy & Gupta, 2012; Jyothibabu, Farooq, & Pradhan, 2010; Ponnuswamy & Manohar, 2016). These studies indicated that the DLOQ scale exhibits acceptable reliability estimates (Lien, Hung, Yang, & Li, 2006). Thus, this study has not conducted exploratory factor analysis for DLOQ scale. In order to confirm, whether the data affirm the seven factor structure of the scale in Indian organizational context, the Confirmatory Factor Analysis (CFA) was conducted on the 21 items of the DLOQ scale.

CFA was initially performed on the 21 items DLOQ scale, which showed an acceptable model fit with the data χ^2 (126) =312.50 at $p < 0.001$, $\chi^2/df = 2.48$, GFI = 0.918, CFI = 0.920, NFI = 0.923, RMSEA = 0.074, SRMR = 0.062). However, owing to the insignificant factor loadings, one item from *Factor 3* 'Team Learning' (TL) (In my organization, teams/ groups have the freedom to adapt their goals as needed) was dropped from the analysis (0.10). Furthermore, the second item of *Factor*

6 'System Connection' (SC) (My organization works together with the outside community to meet mutual needs) was dropped that exhibited low factor loading (0.12). Thus, the seven factor model of DLOQ was retained with 19 items. All the other scale items loaded significantly on latent factors of DLOQ (p<0.001) with the magnitude ranging from 0.643 to 0.904. The seven factor model for learning organization scale has been confirmed by the existent studies conducted in Indian organizational context (Awasthy & Gupta, 2012; Chawla & Joshi, 2011; Jyothibabu, Farooq, & Pradhan, 2010; Thakur & Chaudhuri, 2015).

Furthermore, three different factor structures of DLOQ scale were tested to confirm the best model fit. One of the strengths of a confirmatory factor analysis is the ability to compare "nested" models, where one model is a simpler version of a more complex model. ***First***, a one factor model which does not differentiate between the seven factors and assumes learning organization scale to be a one-dimensional construct was tested. ***Second***, the seven factor model was evaluated to test whether the seven factors were correlated. ***Third***, a higher order model as shown in ***Figure 4.1*** tested the conception that the relationship between the seven factors was accounted for by a second-order factor. It defined seven primary factors and the sub-construct items as depicted in ***Figure 4.1***.

The models 'fit' is assessed by utilizing a chi-square (χ^2) test. The χ^2 statistic tests the difference between predicted and observed correlations. An insignificant χ^2 implies that the discrepancy between the observed correlations and those implied by the model are small enough to be due to chance, that is, the model fits the data. Generally, a χ^2/df (minimum discrepancy divided by the degrees of freedom) value of less than 5 is acceptable, with lower values being superior (Thomson, MacInnis, & Park, 2005). However, Tabachnick and Fidell (2001) asserted that χ^2 test is overly stringent, and therefore, one should not only rely on this completely. There are alternative fit indexes that assess the model fit like absolute fit indexes (e.g., Goodness of Fit Index (GFI), Standardized Root Mean Squared Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA), and incremental fit indexes (e.g., Comparative Fit Index (CFI), and the Normed Fit Index (NFI). NFI and CFI assess the fit of the hypothesized model relative to the independence model, which assumes that there are no relationships in the data (Meyers, Gamst, & Guarino, 2006, pp. 632-633). The RMSEA is the average of the residuals between the observed correlation from the sample and the expected model estimated from the population. It provides a confidence interval and yields appropriate conclusions about the model quality. RMSEA is checked along with its PCLOSE value,

which should be greater than 0.05 to indicate a close fit. Qian & Daniels (2008) have suggested the criterion of acceptable value for CFI and NFI as 0.95. The accepted standard for GFI indicator is above 0.90 (Kelloway, 1998). Some authors (like McDonald & Ho, 2002) have suggested a value greater than 0.90 as acceptable for incremental fit indexes. A value less than 0.06 for RMSEA indicates a good fit (Hu & Bentler, 1999), however, a value less than 0.08 indicates an acceptable fit (Browne & Cudeck, 1993). Likewise, a value of less than 0.05 for SRMR is considered to be a good fit.

Table 4.2 shows fit indices for each of the three models (one-factor model, seven-factor correlated model, and second-order model). As it is evident from the results of the fit statistics, the second-order learning organization model demonstrated a good model fit (χ^2 = 298.84, df = 120; χ^2/df = 2.49; GFI=0.988; CFI = 0.987; NFI = 0.985; RMSEA = 0.051; SRMR = 0.043). In addition, it was observed that the correlated seven-factor model also showed an acceptable model fit. However, the one-factor model indicated a worst model fit with the collected data, as can be predicted from the fit indices shown in *Table 4.2*. Furthermore, to affirm the best model fit, the second-order model and the seven-factor correlated model of learning organization were subjected to χ^2 difference test. The χ^2 difference test indicated that the second-order model was found to be statistically superior to the seven-factor correlated model ($\Delta\chi^2$ (4) =11.96, p<0.001), thus, it can be inferred that the second-order model of learning organization shows the best model fit to the present study sample. On this basis, the second-order model was retained to measure learning organization culture in further analysis. *Table 4.2* represents the results of the goodness of fit statistics for the various comparison models of the learning organization scale.

Table 4.2: Goodness of fit statistics results for confirmatory factor models of the Learning Organization scale.

Models	χ^2	df	χ^2/df	GFI	CFI	NFI	RMSEA	SRMR
One-factor model[a]	988.84	190	5.20	0.514	0.511	0.512	0.112	0.110
Seven-factor correlated model[b]	310.80[***]	124	2.74	0.920	0.934	0.931	0.072	0.065
Second- order model[c]	298.84[***]	120	2.49	0.988	0.987	0.985	0.051	0.043

Notes: N = 330. χ^2, chi-square discrepancy; df, degrees of freedom; GFI, goodness of fit index; CFI, comparative fit index; NFI, normed fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual.
***p < 0.001; [a]Single factor model fit.
[b]First- order seven factor correlated model fit.
[c]Second- order model fit.

Figure 4.1: Figure depicting second-order confirmatory factor model for Learning Organization (LO) scale
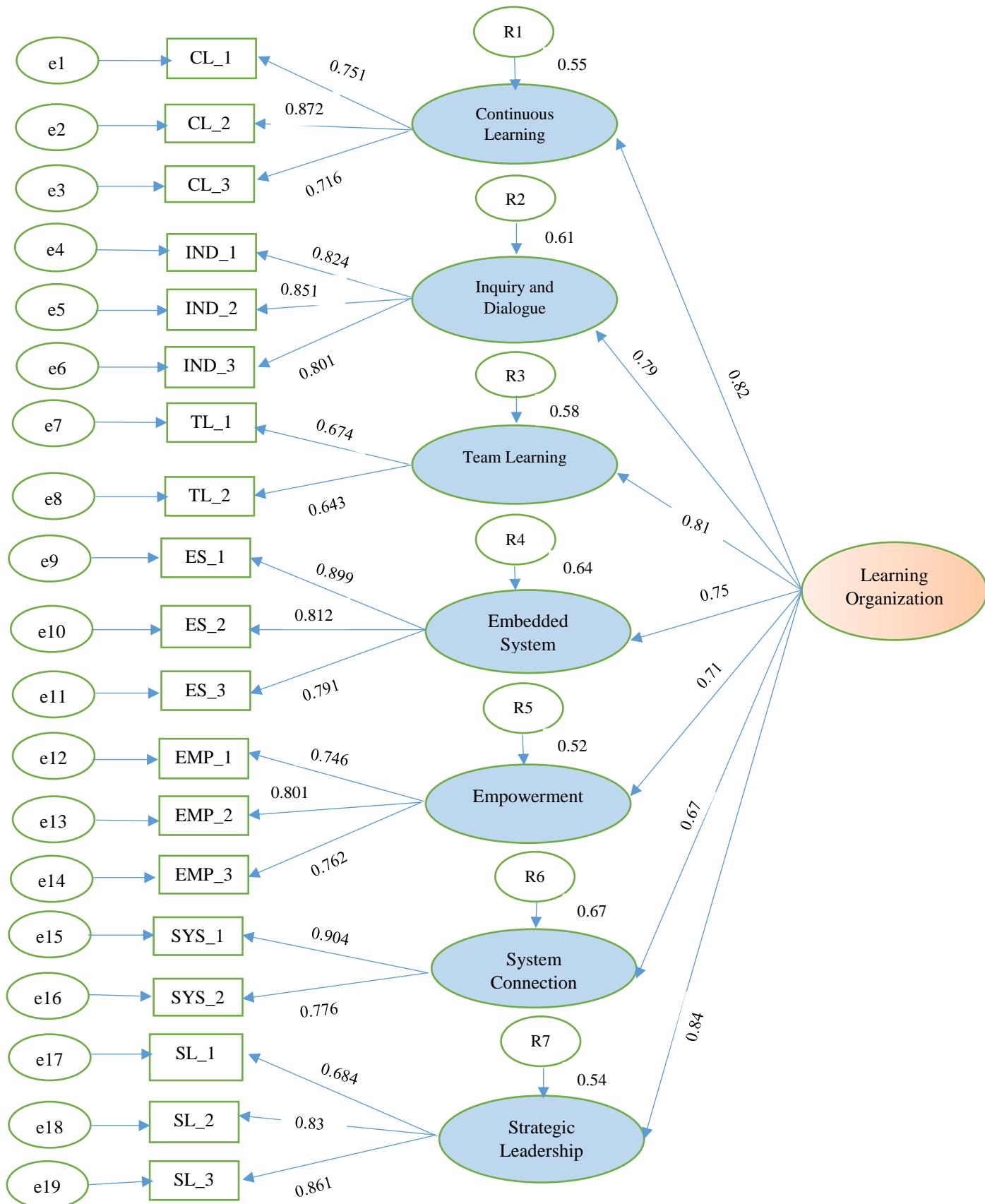
4.3.2 Factor structure of Resilience at Work (RAW) scale

Winwood, Colon, and McEwen (2013) proposed a seven factor 'Resilience at Work' (RAW) scale to measure employee resilience. The seven factors include living authentically, finding your calling, maintaining perspective, managing stress, interacting cooperatively, staying healthy, and building networks. The RAW scale was subjected to factor analyses (both exploratory and confirmatory), since the factor structure of the scale has not been confirmed widely in both the Western and Indian organizational context. Thus, to verify the seven-factor structure of RAW scale in Indian organizational context, the 20 items representing seven original components were subjected first to EFA using principal component analysis with varimax rotation. Before conducting the factor analysis, the Kaiser -Meyer-Olkin (KMO) value was confirmed, which was found to be 0.77, thus, surpassing the threshold value of 0.50 (Hair, Black, Babin, & Anderson, 2010). Also, the Bartlett's Test of Sphericity (Bartlett, 1954) was found to be significant (p = .000).

Principal component analysis (with varimax rotation) resulted in a six-factor structure for RAW scale and explained 76.93% of the variance. Throughout the progression of EFA, items were dropped that did not load accurately on any factor (< 0.40) or portray cross loadings on more than one factor with a difference of less than 0.10 with other factors (Field, 2013). The items showing insignificant factor loadings and cross loadings were dropped, and thus, only 17 items were retained for further analysis. The RAW scale demonstrated the similar factor components as proposed by Winwood and colleagues (2013) in the Indian organizational context. The only key difference was the resulting six factors instead of Winwood, Colon, and McEwen (2013) seven components because of the grouping of the items from the 'Interacting Cooperatively' (IC) and 'Building Network' (BN) components onto one factor (Malik & Garg, 2017c).

The EFA results indicate that the item number 1 to 3 loaded on *Factor 1* and corresponds to the original RAW scale 'Living Authentically' (LA). *Factor 1* showed an eigenvalue of 5.45 and explained 27.25% of the variance, and all three items were retained for the LA component. *Factor 2* corresponds with the 'Finding Your Calling' component (FYC) and exhibited an eigenvalue of 3.28 and explicated 16.41% of the variance. One item from *Factor 2* (The work that I do fits well with my personal values and beliefs) was omitted from analysis due to cross-loading. *Factor 3* 'Maintaining Perspective' (MP) showed an eigenvalue of 2.89 and explicated 11.95% of the variance, and involved two of the three items from MP component. One item from *Factor 3* (When

things go wrong at work it often affect other areas of my life) was omitted from the analysis due to insignificant factor loading (0.10).

Factor 4 'Managing Stress' (MS) exhibited an eigenvalue of 2.71 and explained 9.09% of the variance, and comprised all items from the MS component. One of the items of Factor 5 'Interacting Cooperatively' (IC) was dropped due to the cross-loading (I believe in giving help to my work colleagues, as well as asking for it). Furthermore, the second item of Factor 5 (IC) 'Interacting Cooperatively' (I often ask for feedback so that I can improve my work performance) loaded with items of Factor 7 (BN) 'Building Network'. Thus, Factor 5 (IC) and Factor 7 (BN) were clubbed together to form a new factor. The new Factor 5 was termed as 'Building Social Connections' (BSC), since the items loading on this new factor were related to making connections with colleagues and asking for support and feedback. The new emerged Factor 5 (BSC) included three items (one item of IC clubbed with two items of BN) and showed an eigenvalue of 1.86 and explained 6.83% of the variance. Further, Factor 6 'Staying Healthy' (SH) exhibited an eigenvalue of 1.47 and explained 3.39% of the variance, and embodied all items from the SH component. Subsequently, three items showing insignificant factor loadings and cross loadings were dropped, and thus, only 17 items were retained. The factor loadings for this final solution along with eigenvalues and percentage of variance explained by each factor are shown in *Table 4.3*.

Table 4.3: Factor structure of Resilience at Work (RAW) scale

Factor/ Items	F1	F2	F3	F4	F5	F6
Living Authentically						
1. I have important core values that I hold fast to in my work-life.	0.82					
2. I know my personal strengths and make sure I use them regularly in my work.	0.85					
3. I am able to change my mood at work when I need to.	0.76					
Finding Your Calling						
4. The work that I do helps to fulfil my sense of purpose in life.		0.79				
5. My workplace is somewhere where I feel that I belong.		0.88				
6. Generally I appreciate what I have in my work environment.		0.74				
Maintaining Perspective						
7. Nothing at work ever really 'fazes me' for long.			0.79			
8. Negative people at work often affect my morale or feelings.			0.87			
Managing Stress						
9. I make sure I take breaks to maintain my strength and energy when I am working hard.				0.74		
10. I have developed some reliable ways to relax when I am under pressure at work.				0.81		
11. I have developed some reliable ways to deal with the stress of challenging events at work.				0.77		
12. I am careful to ensure my work does not dominate my personal life.				0.69		
Building Social Connections						
13. I often ask for feedback so that I can improve my work performance.					0.64	
14. I have friends at work I can rely on to support me when I need it.					0.73	
15. I have a strong and reliable network of supportive colleagues at work.					0.69	
Staying Healthy						
16. I have a good level of physical fitness.						0.83
17. I am careful about eating well and healthy.						0.71
Eigen values	5.45	3.28	2.89	2.71	1.86	1.47
Percentage of Variance Explained	27.25	16.41	11.95	9.09	6.83	3.39

Source: Author

4.3.3 Confirmatory Factor Analysis of Resilience at Work (RAW) scale

In order to evaluate the best model fit of Resilience at Work (RAW) scale obtained as a result of exploratory factor analysis, the scale with its respective items was evaluated using confirmatory

factor analysis. Given this, three different factor structures were compared to test the model fit. First, a one -factor model which does not differentiate between the factors and assumes RAW scale to be a one-dimensional construct was tested. Second, the six-factor first-order model tested whether the six factors of RAW scale were correlated. Third, RAW scale was modelled as a higher order factor model with its respective items as reflective indicators of latent first order factors (living authentically, finding your calling, maintaining perspective, managing stress, building social connections and staying healthy) as shown in *Figure 4.2*.

Following established recommendations in the literature (Hair, Black, Babin, & Anderson, 2010); five fit indices were calculated to determine the best model fit of the data: χ^2/df, Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). As it can be depicted from *Table 4.5*, the second-order model of RAW scale best fits the collected data. In addition, it can be noticed that the correlated six-factor model also showed an acceptable data fit. However, the one- factor model, which involved all the seven factors in a single model exhibited poor model fit (χ^2 = 946.12; df = 216; Normed χ^2 = 4.38; GFI = 0.651; CFI = 0.654; NFI = 0.667; and RMSEA = 0.142; SRMR= 0.131), which provided an evidence that RAW scale is not a unidimensional measure. Results of second-order model for RAW scale provided empirical validation for combining sub-constructs into a higher order aggregate. Also, the chi-square difference value indicated that second-order model was statistically superior to the six-factor correlated first-order model ($\Delta\chi^2$ (4) = 10.48, p < 0.001). Therefore, the second-order model for RAW scale was utilized for further analysis. *Table 4.4* represent the results of model fit indices of CFA analysis of the three models of employee resilience measure.

Table 4.4: Goodness of fit statistics results for confirmatory factor models of the Resilience at Work scale.

Models	χ^2	df	χ^2/df	GFI	CFI	NFI	RMSEA	SRMR
One- factor model[a]	946.12	216	4.38	0.651	0.654	0.667	0.142	0.131
Six-factor correlated model[b]	296.42[***]	184	1.61	0.924	0.915	0.893	0.091	0.052
Second- order model[c]	285.94[***]	180	1.58	0.983	0.985	0.982	0.054	0.042

Notes: N = 330. χ^2, chi-square discrepancy; df, degrees of freedom; GFI, goodness of fit index; CFI, comparative fit index; NFI, normed fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual .
***p < 0.001; [a]Single factor model fit.
[b]First- order six factor correlated model fit.
[c]Second- order model fit.

Figure 4.2: Figure depicting second-order confirmatory factor model for Resilience at Work (RAW) scale
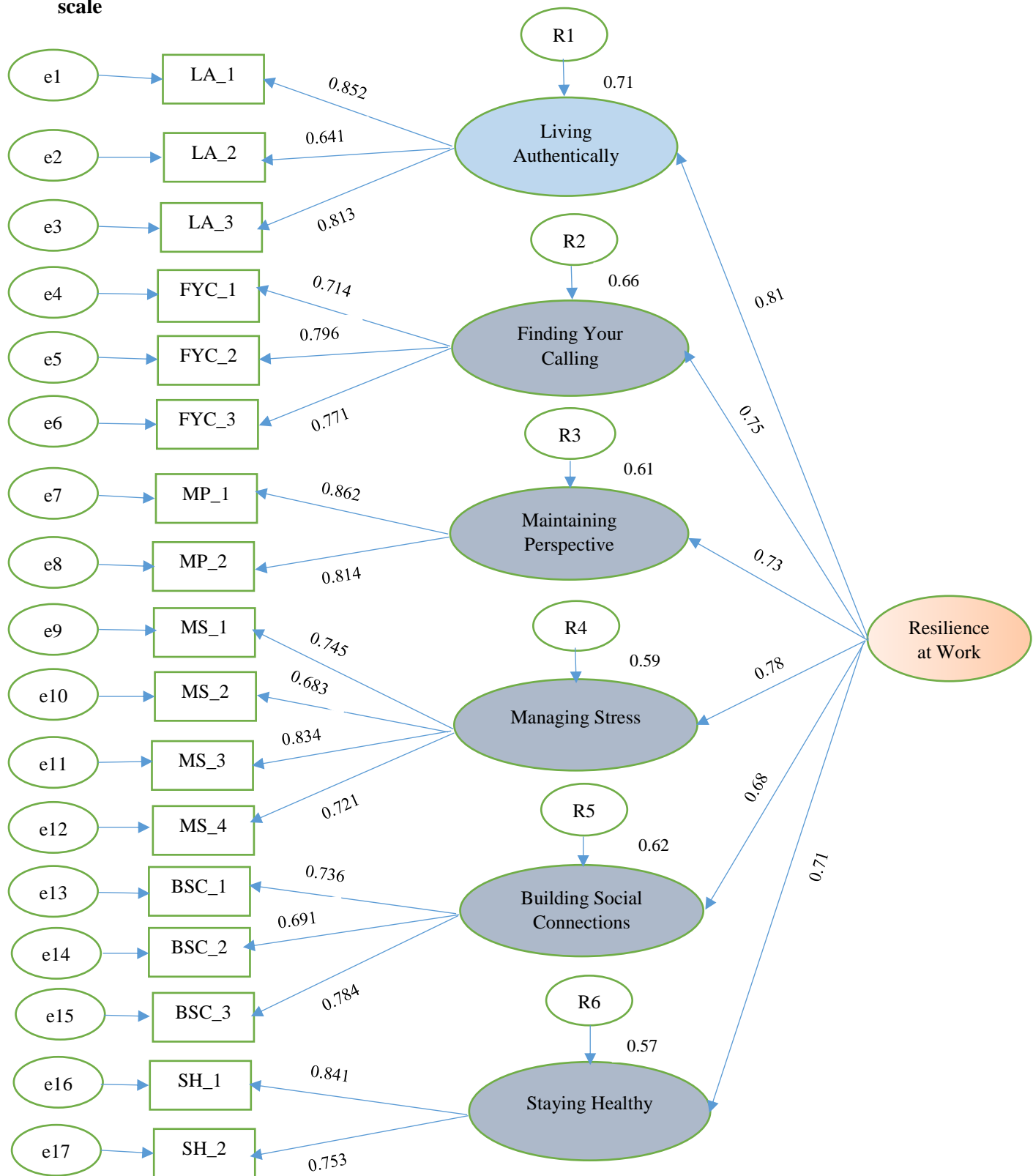
4.3.4 Confirmatory Factor Analysis of Work engagement (WE) scale

The three factor structure of work engagement scale recommended by Schaufeli, Bakker, and Salanova (2006) has been empirically confirmed by various researches. The scale encompasses three factors namely vigor, dedication, and absorption. The scale has been utilized and extensively validated in a number of studies conducted in Indian context (Chaudhary, Rangnekar & Barua, 2012; Bhatnagar, 2012; Gupta, Shaheen, & Reddy, 2017; Agarwal, 2014). Thus, it was assumed that the present data will affirm the three component factor structure of Utrecht Work Engagement Scale (UWES). To confirm this, CFA was employed, which resulted in a fit statistic that showed an acceptable model fit with the collected data (chi square χ^2 (65) = 122.23 at $p < 0.001$, $\chi^2/df = 1.88$, GFI = 0.910, CFI = 0.911, NFI = 0.912, RMSEA = 0.072, SRMR = 0.063). All items loaded significantly on latent factors of UWES-9 ($p < 0.001$) with the magnitude ranging from 0.691 to 0.881.

Subsequently, three different nested models were developed for testing the best model fit of the work engagement scale. First, a one-factor model was tested that does not differentiate between the factors and assumed work engagement to be a one-dimensional construct. Second, the three factor model that tested whether the three factors were correlated. Third, a higher order model as shown in **Figure 4.3** tested the notion that the relationship between the three factors was accounted for by a second-order factor.

Table 4.5 shows fit indices for each of the three models. In this study, work engagement scale was considered as a second-order factor construct in which the items designed to measure vigor, dedication, and absorption loaded onto their underlying constructs and these three constructs load on the higher order factor. Fit statistics obtained support the use of this second-order factor model of work engagement (χ^2=110.20, df = 60, χ^2/df = 1.83, GFI = 0.986, CFI = 0.988, NFI = 0.984, RMSEA = 0.044, SRMR=0.032).

As it is evident from ***Table 4.5***, the second-order model of work engagement best fit the data. In addition, it can also be noticed that the correlated three-factor model also showed acceptable data fit. However, as it can be depicted from ***Table 4.5***, the one-factor model showed a worst model fit with the data (χ^2 =756.82, df= 142, χ^2/df = 5.32, GFI = 0.542, CFI = 0.531, NFI = 0.535, RMSEA = 0.221, SRMR = 0.189). Further, the chi-square difference value indicated that second-order model

was statistically superior to the first-order three factor correlated model ($\Delta\chi^2$ (5) = 12.03, p < 0.001). On this basis, the second-order factorial structure of work engagement scale was retained in the study for further analysis.

Table 4.5: Goodness of fit statistics results for the confirmatory factor models of the Work Engagement Scale

| Models	χ^2	df	χ^2/df	GFI	CFI	NFI	RMSEA	SRMR
One- factor model[a]	756.82	142	5.32	0.542	0.531	0.535	0.221	0.189
Three - factor correlated model[b]	122.23***	65	1.88	0.910	0.911	0.912	0.072	0.063
Second - order model[c]	110.20***	60	1.83	0.986	0.988	0.984	0.044	0.032

Notes: N = 330. χ2, chi-square discrepancy; df, degrees of freedom; GFI, goodness of fit index; CFI, comparative fit index; NFI, normed fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual.
***p < 0.001; [a]Single factor model fit.
[b]First- order three factor correlated model fit.
[c]Second- order model fit.

Figure 4.3: Figure depicting second-order confirmatory factor model for Work Engagement (WE) scale
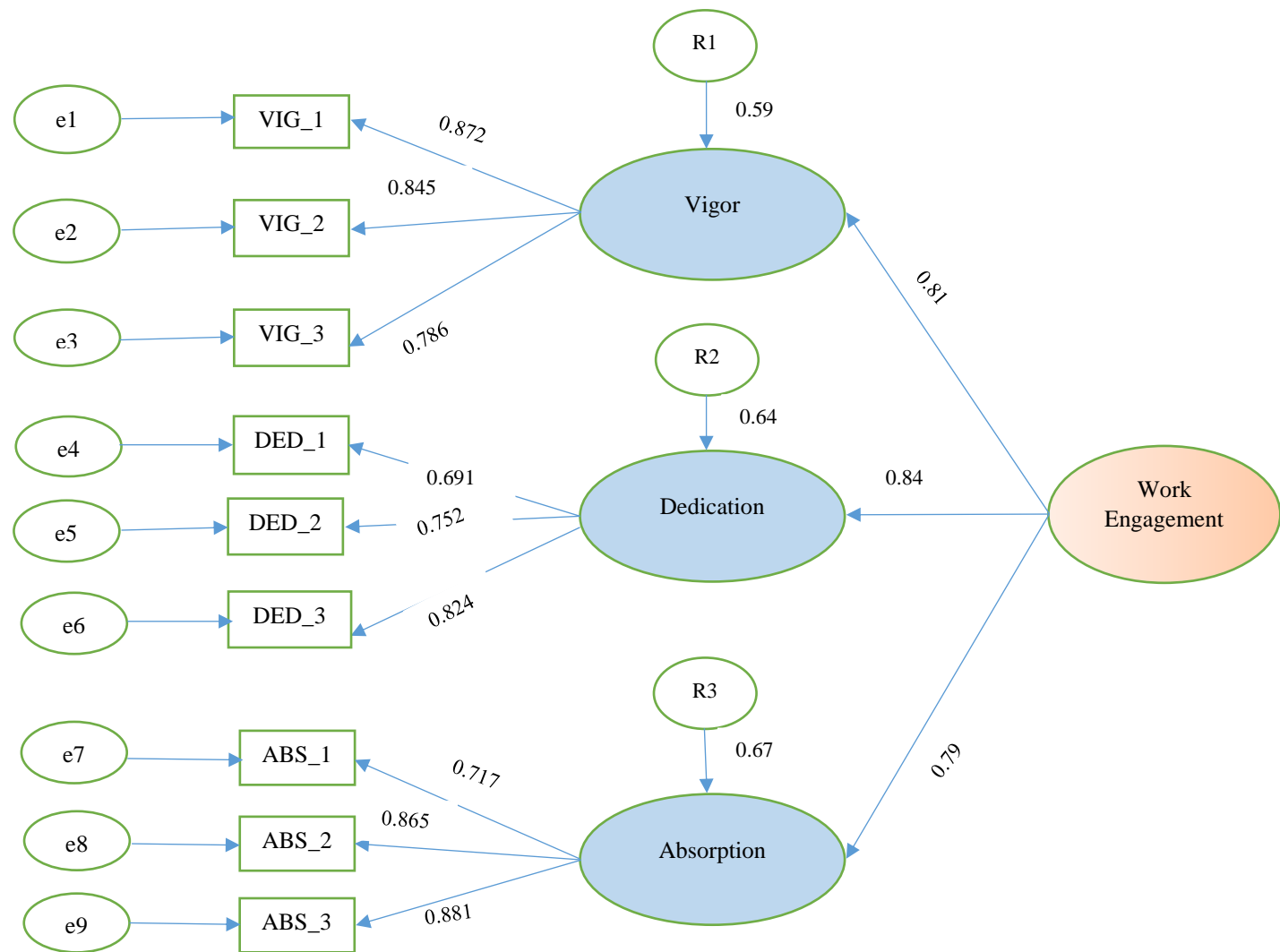
4.4 Descriptive Statistics

Table 4.6 present the results of descriptive statistics (mean and standard deviation) for study variables- learning organization, employee resilience, work engagement and their subitems. The values of Pearson correlation analysis among the retained dimensions of study variables are shown in *Table 4.7*.

In general, the correlation results were all in the expected direction, indicating preliminary support for the relationships asserted in the study hypotheses. The correlation values revealed significantly moderate to high correlations between the study variables. The study results offered initial support affirming the relationships between learning organization, employee resilience, and work engagement. The results showed a positive moderate correlation between learning organization and employee resilience ($r = 0.56$, $p < .01$). Furthermore, employee resilience held a significantly positive relationship with work engagement ($r = 0.61$, $p < .01$). Also, learning organization was found to be significantly correlated with work engagement ($r = 0.66$, $p < .01$).

Table 4.6: Descriptive statistics of study variables

Variables	Mean	Standard Deviation
Continuous Learning Opportunities	3.80	0.922
Inquiry and Dialogue	3.82	0.913
Team Learning	3.54	0.862
Empowerment	3.64	0.954
Embedded System	3.34	0.861
System Connection	3.83	0.845
Strategic Leadership	3.95	0.921
Learning Organization	3.16	0.812
Living Authentically	3.56	0.662
Finding Your Calling	3.62	0.573
Maintaining Perspective	3.79	0.782
Managing Stress	3.94	0.664
Building Social Connections	3.21	0.742
Staying Healthy	3.56	0.743
Employee Resilience	3.64	0.563
Vigor	3.32	0.752
Dedication	3.57	0.746
Absorption	3.68	0.650
Work Engagement	3.54	0.684

Table 4.7: Inter-correlations among study constructs and their sub-items (N=330)

	CLO	IND	TL	ES	EMP	SC	SL	LO	VI	DED	ABS	WE	LA	FYC	MP	MS	BSC	SH	ER
CLO	1																		
IND	.155**	1																	
TL	.026	.401**	1																
ES	.026	.401**	.381**	1															
EMP	.451**	.140*	.201**	.201**	1														
SC	.386**	.103*	.223**	.143*	.430**	1													
SL	.375**	.146*	.131*	.111*	.415**	.387**	1												
LO	.782**	.669**	.820**	.579**	.715**	.682**	.596**	1											
VI	.141*	.150*	.125*	.115*	.426**	.440**	.415**	.339**	1										
DED	.289**	.126*	.122*	.102*	.547**	.247**	.301**	.681**	.532**	1									
ABS	.365**	.128*	.105*	.115*	.435**	.358**	.276**	.287**	.338**	.168*	1								
WE	.665**	.532**	.448**	.656**	.512**	.721**	.812**	.667**	.568**	.688**	0.667**	1							
LA	.316**	.111*	.119*	.129*	.387**	.633**	.607**	.484**	.402**	.525**	.512**	.342**	1						
FYC	.348**	.104*	.129*	.190**	.426**	.604**	.582**	.449**	.518**	.595**	.288**	.102*	.436**	1					
MP	.237**	.154*	.124*	.224**	.412**	.593**	.585**	.452**	.596**	.406**	.142*	.367**	.201*	.314**	1				
MS	.349**	.452**	.466**	.456**	.419**	.443**	.433**	.405**	.426**	.412**	.417**	.406**	.291**	.168*	.332**	1			
BSC	.426**	.412**	.417**	.406**	.445**	.370**	.358**	.366**	.445**	.370**	.358**	.366**	.455**	.490**	.532**	.243**	1		
SH	.582**	.585**	.406**	.527**	.401**	.561**	.549**	.553**	.365**	.316**	.348**	.327**	.339**	.401**	.392**	.513**	.543**	1	
ER	.527**	.614*	.713*	.823*	.617**	.536**	.506**	.567**	.588**	.622**	.525**	.616**	.554**	.636**	.618**	.598**	.546**	.434**	1

(Note: source primary data, 2 tailed Pearson correlation coefficient, *p < 0.05, **p < 0.01); CLO, Continuous Learning Opportunities; IND, Inquiry and Dialogue; TL, Team Learning; ES, Embedded Systems; EMP, Empowerment; SC, System Connection; SL, Strategic Leadership; LO, Learning Organization; VI, Vigor; DED, Dedication; ABS, Absorption; WE, Work Engagement; LA, Living Authentically; FYC, Finding Your Calling; MP, Maintaining Perspective; MS, Managing Stress; BSC, Building Social Connections; SH, Staying Healthy; ER, Employee Resilience

4.5 Reliability and construct validity of instruments

4.5.1 Reliability

Prominently, it is necessary to determine if the utilized study instruments had adequate reliability (Hair, Black, Babin, & Anderson, 2010). Reliability is the accuracy and consistency of an instrument and informs the researcher whether an instrument measures the intended variables in the applied context. Reliability is the degree to which survey results are free from random error and consistent with surveyed populations (Alreck & Settle, 1995). A reliable scale or instrument is one which produces the same results repeatedly for a given set of unchanged objects or events. In order for a scale to be considered usable over time it must be reliable, which offers assurance that respondents will consistently answer the same questions in the same way regardless of the number of times they are asked.

There are different ways to estimate reliability of an instrument like test-retest reliability, split-half reliability and Cronbach's coefficient alpha. Owing to the limitations of the present cross-sectional study, it was not feasible to go for the test-retest approach. Also, split-half reliability has its own limitations, therefore, Cronbach's coefficient alpha was chosen to estimate the reliability of the scales confirmed in the previous section. To test for internal consistency of the instrument, a Cronbach's alpha coefficient was calculated for each study factor. Cronbach's alpha is a measure of multi-scale internal consistency and "by far the most commonly used reliability coefficient" (Peterson, 1994). According to Cristmann and Van Aelst (2006), values of 0.70 or higher are often used as the cut-off value for Cronbach's α, and thus, for the reliability of the test. In this study 0.70 was acceptable as the cut-off score for reliability measurement using Cronbach's alpha.

The reliability estimates of the study variables are shown in *Table 4.8*. The results indicate high reliability of the research variables. The learning organization scale showed a high reliability with Cronbach's alpha value of 0.85. Additionally, the reliabilities of the dimensions of the learning organization were also significant (Cronbach alpha values = 0.81 to 0.89). The scale demonstrated high reliability in a number of countries (both developed and developing country contexts) with diverse cultures, such as Malaysia (Sta Maria & Watkins, 2003); China (Zhang, Zhao, Zhou, & Nunamaker, 2004); Australia (Power & Waddell, 2004); and Spain (Hernandez & Watkins, 2003). Hence, when compared to other instruments, Watkins and Marsick (1997) DLOQ measure is considered as a highly reliable measure in context of developing countries such as India.

Furthermore, the reliability of the RAW scale (17 items) was α = 0.81. The internal consistency of the six components of the scale were found to be significant, representing Cronbach's alpha values: α=0.84 (living authentically), α = 0.78 (finding your calling), α = 0.76 (maintaining perspective), α = 0.83 (managing stress), α=0.77 (building social connections), and α = 0.80 (staying healthy). The composite reliability estimates of the scale components exceeded the threshold value of 0.70 (Fornell & Larcker, 1981), indicating that the RAW scale items were internally consistent and reliable.

In addition, the reliability of work engagement scale was found to be α = 0.88, demonstrating high reliability of the measure. The Cronbach's alpha values for the components of work engagement scale were all in the acceptable range (vigor = 0.91, dedication =0.85, and absorption= 0.89). Thus, all the scale utilized in the study demonstrated high reliability.

Table 4.8: Reliability of the scales and their sub-items

Scale	Subscale items	Number of items	Cronbach's alpha (α)
Learning Organization	LOC1: Continuous Learning Opportunities	3	0.87
	LOC2: Inquiry and Dialogue	3	0.84
	LOC3: Team Learning	2	0.81
	LOC4: Embedded Systems	3	0.89
	LOC5: Empowerment	3	0.85
	LOC6: System Connection	2	0.86
	LO7: Strategic Leadership	3	0.82
	Total scale	19	0.85
Resilience at Work	RAW1: Living Authentically	3	0.84
	RAW2: Finding Your Calling	3	0.78
	RAW3: Maintaining Perspective	4	0.76
	RAW4: Managing Stress	2	0.83
	RAW5: Building Social connections	3	0.77
	RAW6: Staying Healthy	2	0.80
	Total Scale	17	0.81
Work Engagement	WE1: Vigor	3	0.91
	WE2: Dedication	3	0.85
	WE3: Absorption	3	0.89
	Total Scale	9	0.88

4.5.2 Construct validity of the instruments

Validity refers to the appropriateness of measurement instruments (McMillan & Wergin, 2010). Specifically, validity ensures that the measurement "is free of extraneous or confounding variables" (McMillian & Wergin, 2010, p. 61). According to Yang (2003), "validity refers to the accuracy of the observable scores in interpreting certain abstract concepts" (p. 153).

This study employed confirmatory factor analysis to assess the convergent and discriminant validity for each of the LO, RAW, and WE scales in Indian organizational context. Colin (2009) asserted that when different variables are utilized to measure the same construct and scores from these different variables are strongly correlated, then it indicates convergent validity. To evaluate convergent validity, this study employed three standard criteria, which include standard factor loadings, composite reliability, and Average Variance Extracted (AVE) (Fornell and Larcker, 1981; Hair, Black, Babin, & Anderson, 2010). High composite reliability values and significant factor loadings indicate convergent validity of the study measures (Cable & DeRue, 2002). Anderson and Gerbing (1988) suggested that all observable indicators should load significantly on their respective latent variables for convergent validity. The loading estimates ranged from 0.643 to 0.904 for LO scale; for RAW scale, 0.641 to 0.862; and for WE scale, 0.691 to 0.881. The acceptable level for composite reliability is 0.70 (Fornell & Larcker, 1981), and as can be depicted from *Table 4.9*, the values in the study are above the threshold value for all the constructs. The minimum acceptable level for the AVE is 0.50 (Fornell & Larcker, 1981) and the values in the study ranged from 0.592 to 0.649, hence, the results indicate strong evidence that the constructs met the criteria for convergent validity (Anderson & Gerbing 1988; Cable & DeRue, 2002).

Discriminant validity refers to the extent to which the items representing a latent variable discriminate that construct from the items representing other latent variables. This study utilized the Average Variance Extracted (AVE) test to gauge discriminant validity of the measures (Fornell & Larcker, 1981; Hair, Black, Babin, & Anderson, 2010). According to Fornell and Larcker (1981), AVE of the constructs must be larger than the shared variance that is a squared correlation among constructs. The values of AVE were found to be greater than the Maximum Shared Variance (MSV) and Average Shared Variance (ASV), which indicate discriminant validity of constructs. As can be seen in *Table 4.9*, the results indicate strong evidence of the discriminant validity of the study variables (Kline, 2010). Overall, there was evidence of convergent and discriminant validity of the scales utilized in the research (Anderson & Gerbing, 1988; Fornell & Larcker, 1981).

Table 4.9: Results of convergent and discriminant validity of instruments

Research variables and items	Factor loading	t-value	CR	AVE	MSV	ASV
Learning Organization			0.860	0.628	0.412	0.242
LO1	0.751	15.121[***]				
LO2	0.872	18.213[***]				
LO3	0.716	17.614[***]				
LO4	0.824	16.321[***]				
LO5	0.851	15.886[***]				
LO6	0.801	13.689[***]				
LO7	0.674	16.563[***]				
LO8	0.643	18.934[***]				
LO9	0.899	19.612[***]				
LO10	0.812	15.763[***]				
LO11	0.791	16.890[***]				
LO12	0.746	20.912[***]				
LO13	0.801	15.836[***]				
LO14	0.762	16.743[***]				
LO15	0.904	19.813[***]				
LO16	0.776	18.654[***]				
LO17	0.684	17.412[***]				
LO18	0.832	15.421[***]				
LO19	0.861	16.763[***]				
Resilience at Work			0.825	0.592	0.262	0.135
RAW1	0.852	18.745[***]				
RAW2	0.641	16.352[***]				
RAW3	0.813	15.764[***]				
RAW4	0.714	19.512[***]				
RAW5	0.796	14.764[***]				
RAW6	0.771	13.863[***]				
RAW7	0.862	15.645[***]				
RAW8	0.814	17.862[***]				
RAW9	0.745	16.824[***]				
RAW10	0.683	15.316[***]				
RAW11	0.834	17.546[***]				
RAW12	0.721	16.653[***]				
RAW13	0.736	15.343[***]				
RAW14	0.691	18.412[***]				
RAW15	0.784	19.116[***]				
RAW16	0.841	15.764[***]				

			CR	AVE	MSV	ASV
RAW17	0.753	14.374***				
Work Engagement			0.876	0.649	0.435	0.293
WE1	0.872	15.618***				
WE2	0.845	16.442***				
WE3	0.786	15.784***				
WE4	0.691	18.546***				
WE5	0.752	19.332***				
WE6	0.824	16.743***				
WE7	0.717	15.664***				
WE8	0.865	16.341***				
WE9	0.881	18.362***				

Note: CR =composite reliability; AVE = Average Variance Extracted; MSV= Maximum Shared Variance and ASV= Average Shared Variance.
***Significant at the 0.001 significance level.

4.6 Assessment of Measurement Model

Based on the two-step procedure proposed by Anderson and Gerbing (1988), a measurement model of the latent variables was first estimated using Confirmatory Factor Analysis (CFA), followed by testing of the hypothesized model. Before testing the hypothesized model, the study assessed the measurement model using confirmatory factor analysis (Jöreskog & Sörbom, 1996).

In order to analyze whether all the constructs in the study were conceptualized as distinct from each other, a series of nested model comparisons were performed. With this in mind, the study conducted a CFA of one-factor model, two-factor, and three-factor models, in which all three study constructs were incorporated as three separate factors, namely learning organization, employee resilience, and work engagement (Model 3). This model (Model 3) is then compared against the one-factor model (Model 1) and two-factor alternative models (Model 2A, 2B and 2C):

(**1**) a one-factor measurement model which hypothesized that all three constructs loaded on a single latent factor (Model 1),

(**2**) a two factor model in which three constructs were separated into two factors, with learning organization as a separate factor and (employee resilience and work engagement) as a combined factor (Model 2A); and work engagement as a separate factor with (learning organization and employee resilience) as a combined factor (Model 2B),

(**3**) another two factor model, with employee resilience as a separate factor, and (learning organization and work engagement) as a combined factor (Model 2C), and

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(4) a three-factor model, in which all three study constructs were incorporated as three separate factors, namely learning organization, employee resilience, and work engagement (Model 3).

Table 4.10 present the results of model fit statistics for nested-model comparisons, wherein the baseline three-factor model (Model 3) was compared with alternative models (Model 1, Model 2A, 2B and 2C). Further, these alternative models absolute and relative indices values were examined. The absolute goodness-of-fit indices calculated were the overall chi-square χ^2, χ^2/df ratio, Goodness-of-Fit Index (GFI), and Root Mean Square Error of Approximation (RMSEA) (Hooper, Coughlan, & Mullen, 2008). Because χ^2 is sensitive to sample size, the computation of relative goodness-of-fit indices is strongly recommended (Bentler, 1990). Drawing on this recommendation, the study computed three relative fit indices: Comparative Fit Index (CFI); Tucker-Lewis Index (TLI); and Incremental Fit Index (IFI). Furthermore, the chi-square differences were computed ($\Delta\chi^2$) to directly compare the fit of Model 3 against that of Models 1, 2A, 2B, and 2C. *Table 4.10* shows the goodness of fit statistics for nested measurement models.

Table 4.10: Goodness of fit statistics of nested measurement models

Measurement Models	χ^2	df	GFI	CFI	TLI	IFI	RMSEA	$\Delta\chi^2$	Δdf
M1. One factor model |LO + ER + WE|	371.40[**]	56	0.57	0.61	0.63	0.66	0.18		
M2A. Two factor model |LO| |ER+WE|	286.45[**]	54	0.74	0.83	0.81	0.84	0.12	M2A-M1= 84.95[**]	2
M2B. Two factor model |LO + ER| |WE|	224.67[**]	54	0.75	0.84	0.81	0.85	0.13	M2B-M1= 146.73[**]	2
M2C. Two factor model |LO +WE| |ER|	221.58[**]	54	0.74	0.85	0.82	0.85	0.12	M2C-M1= 149.82[**]	2
M3. Three factor model |LO| |ER| |WE|	141.45[**]	50	0.97	0.98	0.96	0.99	0.05	M3-M1= 229.95[**]	6
								M3-M2A= 145[**]	2
								M3-M2B= 83.22[**]	2
								M3-M2C= 80.13[**]	2

Notes: N=330; χ^2, Chi square statistic; df, degrees of freedom; GFI, Goodness-of-Fit Index; CFI, Comparative Fit Index; TLI, Tucker-Lewis Index; IFI, Incremental Fit index; RMSEA, Root mean square error of approximation; [**]p < 0.001

According to Bollen and Long (1993), a χ^2/df ratio value that equals 5 or less is considered acceptable. For fit indices, i.e., GFI, TLI, CFI, and IFI, values greater than 0.90 indicate an acceptable fit, and values greater than 0.95 are considered as indicating a good fit (Hu & Bentler, 1999). Values smaller than 0.08 for the RMSEA are indicative of a good fit, and values greater than 0.10 lead to model rejection (Browne & Cudeck, 1993).

Furthermore, given that the data collection technique employed in the current study was cross sectional self-reports, common method bias could be one potential concern. The test assumes that a single factor will account for all of the covariance among the variables of interest if common method bias is present (Podsakoff & Organ, 1986). If not addressed, the measurement errors may lead to inflation or deflation of the results, thereby leading to misleading conclusions (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). The study results reflect that the fit of the single-factor model was considerably worse. This confirmed that common method bias was not a threat for this study. As shown in **Table 4.10**, the fit statistics for the tests of the three two-factor (M2A, M2B, and M2C), one-factor (M1) and three-factor (M3) measurement models revealed that the three-factor model was the best-fitting model, suggesting that the three scales were distinct. Results of model fit statistics (*Table 4.10*) indicated that Model 3 that distinguished between all three study constructs showed best model fit with the data as compared to other models (χ^2=141.45, df = 50, GFI = 0.97, CFI= 0.98, TLI=0.96, IFI=0.99, RMSEA=0.05).

In essence, the results indicate that a model that treats learning organization, employee resilience, and work engagement as distinct factors showed good model fit with the data, as compared to the model that combined the study variables into fewer undifferentiated factors. Thus, the three-factor measurement model showed a better model fit and was retained for further analysis.

4.7 Hypotheses Testing

To test the study hypotheses, the study utilized Hayes and Preacher's (2011) MACROS for SPSS. This method allows for the calculation of bias-corrected bootstrap confidence intervals (0.95) for the indirect effect, utilizing 10,000 samples. This analytic strategy allows for the concurrent testing of the total, direct, and indirect effect of learning organization on work engagement through the mediating effect of employee resilience. Following the directions given in Hayes (2012) white paper,

the estimates of direct and indirect paths linking learning organization, employee resilience, and work engagement were generated.

4.7.1 Testing of Direct effects

The estimates of direct effect signifies the total effect of independent variable (LO) on dependent variable (WE), when the mediator (ER) is not taken into account. With regard to the direct effects of learning organization on the mediator, i.e., employee resilience (path a), learning organization significantly predicted employee resilience (β=0.41, p<0.05); therefore, **Hypothesis 1** was supported. Furthermore, in accordance with *Hypothesis 2*, the association between mediator and outcome (path b) identified that employee resilience had a positive significant direct relationship with work engagement ($\beta = 0.58$, $p < 0.01$), thus supporting **Hypothesis 2**.

Additionally, the direct effect of learning organization on work engagement was assessed, while controlling the effect of mediator (*c* path). The results revealed that there was a positive direct effect of learning organization on work engagement ($\beta = 0.35$, $p < 0.05$); thus affirming **Hypothesis 3**.

4.7.2 Testing of Indirect effects

The indirect effects correspond to the influence that the independent variable (IV) exert on the dependent variable (DV) through the mediator. Indirect effects are significant when zero is not contained in the bootstrap confidence intervals. The analysis revealed that the estimated confidence intervals for indirect path does not entail zero (BOOTLLCI= 0.05, BOOTULCI= 0.17). Since zero is not contained in the 95% confidence interval for the indirect effect, this indicated the presence of significant indirect path linking learning organization and work engagement, which confirmed the mediating role of employee resilience.

The bootstrap estimates of the mediation analysis showed that learning organization impact work engagement both directly and indirectly through the mediating effect of employee resilience. Specifically, as shown in *Table 4.11*, learning organization was positively associated with employee resilience (path a), as well as employee resilience was positively associated with work engagement (path b), and that the effect of learning organization on work engagement was attenuated by the presence of employee resilience (path c'), however it does not become insignificant, which thus, indicates partial mediation. *Table 4.11* presents the results of the bootstrapping procedure highlighting all the direct and indirect paths along with their estimates.

Table 4.11: Bootstrap results showing direct and indirect effect of learning organization, employee resilience, and work engagement relationship.

	Employee Resilience β^a	Work Engagement β^c	Work Engagement $\beta^{c'}$	Indirect effect $\beta^{c-c'}$
Employee Resilience[b]	-	0.58^{**}		-
Learning Organization	0.41^*	0.35^*	0.12^*	0.23^*

Notes. $N = 330$. $^*p < 0.05;$ $^{**}p < 0.01$.
[a]Effect of learning organization (IV) on employee resilience (mediator).
[b]Effect of employee resilience (mediator) on work engagement (DV).
[c]Effect of learning organization (IV) on work engagement (DV) without mediator.
c': Path c' is the direct learning organization (IV) to work engagement (DV) relationship after employee resilience (mediator) is added to the regression.
c-c': Path c-c'shows the indirect effect of the IV on the DV through the mediator.
*As per Hayes & Preacher (2011) method

Table 4.12 show the results of direct and indirect effect of learning organization, employee resilience, and work engagement relationship. The results showed that the direct path between learning organization culture and employee resilience indicates a significant influence of learning organization culture on employee resilience ($\beta = 0.41$, $p < 0.05$), thus supporting *Hypothesis 1*. Also, employee resilience exerted a significantly strong influence on work engagement ($\beta = 0.58$, $p < 0.01$), hence, *Hypothesis 2* was supported. Consequently, results revealed that learning organization exerted a moderate positive influence on work engagement with a path coefficient value $\beta = 0.35$ ($p < 0.05$), thus, supporting *Hypothesis 3*.

Table 4.12: Results of hypotheses.

Hypothesized paths	Standardized coefficient β^a	p -value	Remarks
Learning organization → Employee resilience	0.41^*	0.010	Hypothesis 1 supported
Employee resilience → Work engagement	0.58^{**}	0.001	Hypothesis 2 supported
Learning organization → Work engagement	0.35^*	0.021	Hypothesis 3 supported
Learning organization → Employee resilience → Work engagement	0.23^*	0.011	Hypothesis 4 partially supported

Notes: N= 330; $^*p < 0.05;$ $^{**}p < 0.01$
[a]As per Hayes and Preacher (2011) method

With regard to the hypothesized mediating relationship, i.e., **Hypothesis 4**, which stated that employee resilience would mediate the relationship between learning organization culture and work engagement, received only partial support, since the effect of learning organization culture on work engagement diminishes with the presence of employee resilience but still remained significant (β=0.12, $p < 0.05$). These results suggested that learning organization culture have both indirect and direct effects on the outcome variable, i.e., work engagement, hence, **Hypothesis 4** was partially supported. The bootstrap results showing direct and indirect effects of learning organization on work engagement through employee resilience are shown in **Figure 4.6**.

Figure 4.6: Results of bootstrap analysis showing direct and indirect effect of learning organization on work engagement through employee resilience. (Indirect effect is depicted by dashed arrow)
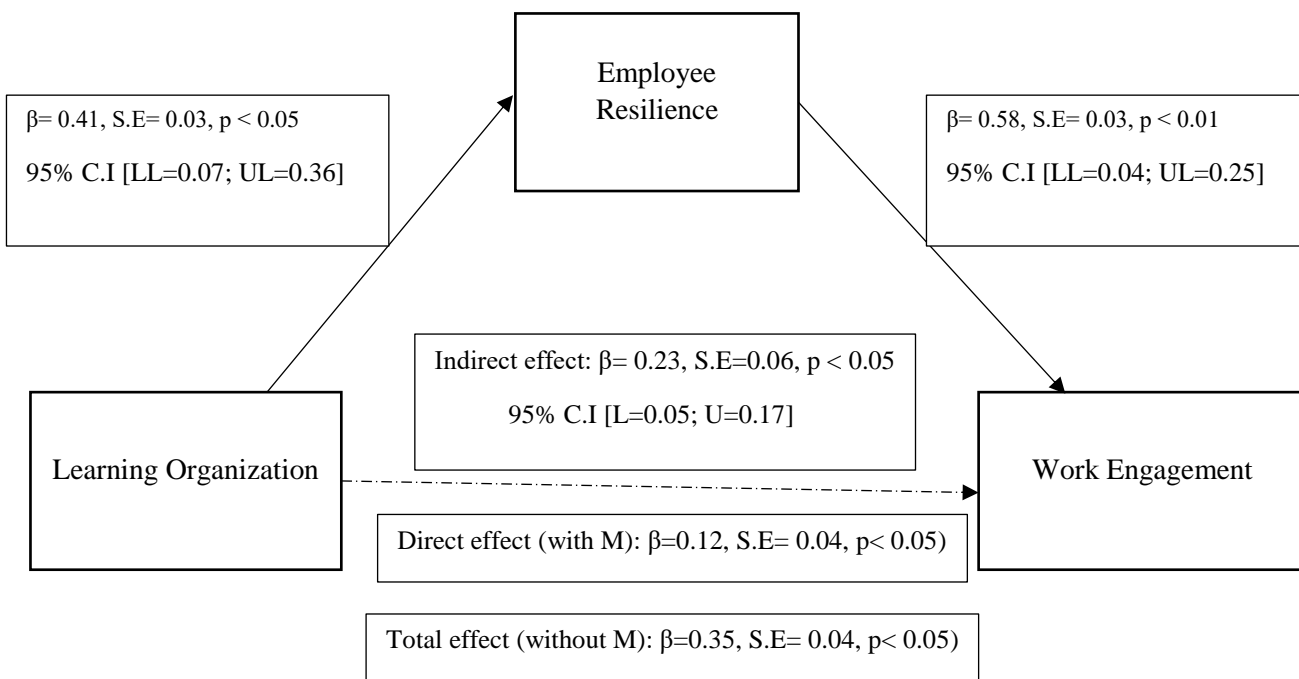
Note: 95% bias-corrected confidence interval; LL = lower limit of confidence interval; UL = upper limit of confidence interval; S.E., standard error

4.8 Discussion of Findings

This research developed and tested a conceptual model demonstrating the effect of learning organization culture on employee resilience and work engagement. Overall, the results of Hayes and Preacher (2011) MACROS analyses were consistent with the study hypotheses. The study results indicate that learning organizations exert a strong influence on employee resilience, showing a significant positive path coefficient ($\beta = 0.41$, $p < 0.05$). Furthermore, the study found that employee resilience exert a strong influence on work engagement, reflecting a significant positive path coefficient ($\beta = 0.58$, $p < 0.01$). Similarly, learning organization influence work engagement, representing a moderate positive path coefficient ($\beta = 0.35$, $p < 0.05$). Thus, learning organization culture plays a key role in cultivating employee resilience and work engagement. The study findings suggest that learning organization and employee resilience can be viewed as an important antecedent factors to work engagement. In addition, the findings reveal that employee resilience partially mediates the relationship between learning organization and work engagement ($\beta = 0.23$, $p < 0.05$). Therefore, the findings affirms the following results:

- Perceptions of learning organization culture significantly foster employees' resilience.
- Employee resilience significantly influence work engagement of IT personnels'.
- Learning organization culture significantly impacts IT personnels' work engagement.
- Employee resilience partially mediates the relationship between learning organization and work engagement among personnel working in IT organizations.

This section draws on the existent literature to support the underlying relationship between learning organization, employee resilience, and work engagement.

4.9 Learning Organization and Employee Resilience

The study results indicate that learning organization culture exerts a significant influence on employee resilience, representing a significant positive path coefficient (*$\beta = 0.41$, p<0.05*) (see **Table 4.12**), thus, offering support to *H1*. This finding signifies that the higher the extent to which an organization nurtures learning organization culture, the more resilient will be its employees.

Primarily, the relationship between learning organization and employee resilience bolster the emerging scholarly movements of 'Positive psychology' (Seligman & Csikszentmihalyi, 2000) and 'Positive Organizational Scholarship' (POS) paradigms. Positive psychology has lately exhibited a

substantial presence in Human Resource Management (HRM) and Organizational Behavior (OB) under the research umbrellas of Positive Organizational Behavior (POB) (Luthans, 2002b) and Positive Organizational Scholarship (POS) (Cameron, Dutton, Quinn, & Wrzesniewski, 2003). Eventually, POS provides impetus for designing positive workplaces with a prime focus on revitalizing human strengths at work. Moreover, positive psychology lays a substantial groundwork to understand the vital role of human strengths and virtues like resilience for effective individual and organizational functioning. With the advent of positive psychology movement, the concept of resilience has received burgeoning attention from both the researchers and practitioners in the organizational behavior and HRM fields (Bardoel, Pettit, Cieri, & McMillan, 2014; Robertson, Cooper, Sarkar, & Curran, 2015). Thus, by coalescing positive psychology with an organizational perspective, this research offers a vital healing remedy for both the contemporary organizations and their employees who incessantly face averse and stressful experiences at workplaces. Essentially, this study findings both complements and enriches the existent research, which advocates the strengthening of positive human dynamics for producing substantial outcomes for both the organizations and their members.

Primarily, the study results assert that learning organizations provide a favorable milieu, which expand and improve the ways people cope with adversity, and thus, facilitate the development of employee resilience. This also finds support from the extant literature, which demonstrate that when employees are offered with enriched working environment, they tend to feel valued and supported that in turn has been reported to facilitate individuals' coping (Kumpfer, 1999; Werner & Smith, 1992). Previous researches have shown that quality work environment and a positive organizational climate (Lemons & Thatchenkery, 2013; Markey & Knudsen, 2014) facilitate the development of resource capacities like resilience.

Resonating a similar fact, Martin, Jones, and Callan (2005) reported that employees' positive perceptions of organizational climate affect their appraisals in terms of hope, efficacy, optimism, and resilience. Moreover, creating a supportive social context in workplace offers people reliable social connections, which trigger resilience among employees (Winwood, Colon, & McEwen, 2013). Besides, prior research has shown that a resourceful working culture that offers high levels of task significance, autonomy, and feedback to employees is conducive for the development of employee resilience (Bowles & Cooper, 2012; Xing & Liu, 2016). In essence, the present study

results emphasize that when employees are offered a learning organization culture, they in turn demonstrate higher levels of resilience (Hodliffe, 2014; Malik & Garg, 2017d).

It is well documented in the literature that a learning organization culture provides *'continuous learning opportunities'* to employees; offers a supportive environment for open communication through *'inquiry and dialogue'*; fosters *'team learning and collaboration'* (Garvin, Edmondson, & Gino, 2008; Marsick & Watkins, 1999); facilitate employees participation through *'empowerment'*; offers *'embedded systems'* for knowledge creation and sharing (Chunharas, 2006); develops shared vision among employees through *'system connection';* and provides *'strategic leaders'* which guide employees towards the pathway of success (Watkins & Marsick, 1996). Thus, as a higher-order core construct, learning organization culture offer systems and processes that act as significant contributors in the development of employee resilience.

The existent literature also supports the fact that a learning organization culture (encompassing continuous learning opportunities, dialogue and inquiry, team learning, empowerment, embedded systems, strategic leadership, and system connection dimensions) could play a vital role in the development of employee resilience. Primarily, resilience is enhanced when individuals have access to *'continuous learning opportunities'*, which augment their experiences and add to their growth and expertise. In organizational milieu, resilience is stimulated when people possess the specific and relevant knowledge and are given authority to make decisions and resolve problems (Wruck & Jensen, 1994). As people gain control over vital task behaviors and exercise discretion in executing those behaviors, they in turn cultivate a sense of efficiency and competence. As the sense of competence increase, individuals are better able to respond effectively and persevere in the face of failures and challenges.

Paton et al. (2008) examined the resources that support resilience development among police officers and highlighted the role of empowerment, competence, and meaningfulness in boosting employee resilience. The authors advocated that when employees perceive that they are offered inadequate or inappropriate resources to perform their work roles, this is turn results in higher incidents of stress among employees. Having resources (physical, social, and informational) allows individuals to take initiative and enhance their sense of control (impact) and self-efficacy (competence) over environmental challenges. Paton et al. (2008) found that competence had the most

significant impact on resilience. Likewise, Gillespie, Chaboyer, Wallis, and Grimbeek (2007) revealed three environmental factors that impact resilience: *(i)* competence (the ability to use extensive skill and knowledge); *(ii)* collaboration (the ability to work within a team); and *(iii)* control (the individual's ability to identify issues and prioritize despite chaotic situations).

Furthermore, evidence present in the literature suggests that individuals who are focused on seeking out challenges and learning opportunities, are perhaps more resilient (Hodliffe, 2014; Malik & Garg, 2017b). Employees who are more willing towards acquiring new skills, mastering new situations, and enhancing competence are more resilient and positively adjust to arduous situations. In essence, employees who have honed their competencies exhibit higher resilience, since they handle the challenging complexities of environments effectively, and are more motivated to persist in the face of hardships and obstacles.

Additionally, prior research advocates that resilience develops more likely among individuals when their 'motivation system' is mobilized, i.e., when individuals have experiences that allow them to encounter success and build self-efficacy that motivates them to succeed in their future endeavors (Masten & Reed, 2002). Previous studies have reported that when an organization offers a learning culture, employees learn new skills to deal with the ongoing changes in their work (Van Breda-Verduijn, & Heijboer, 2016; Senge, 1990). Murray and Donegan (2003) emphasized that learning culture fosters innovation, which improves the behavior and adaptive capability of employees. Additionally, literature shows that when employees are offered continuous opportunities to enhance their skills and learn new techniques, they feel more secure to take calculated risks and try new ideas (Tiwari & Lenka, 2016), and become more flexible and prepared to successfully adapt to unexpected changes. This in turn leads to enhanced change promptness that aid in developing employee resilience (Sundblad, Älgevik, Wanther, & Lindmark, 2013).

Moreover, learning organization offers an environment that supports questioning and bestow feedback to its employees by promoting *'inquiry and dialogue'* at workplace (Watkins & Marsick, 1996). This furnish opportunities for employees to express their problems and concerns, and provide feedback without fear of negative consequences (Rees, Alfes, & Gatenby, 2013). Earlier research shows that employees feel a sense of safety at workplace when they are able to express themselves freely, suggest new ideas, and take risks (Edmondson, 1999). Specifically, employees perceive

themselves as more valuable assets to the organization when they are allowed to "voice" their ideas, as compared to the "mute" situation, where they cannot express their concerns freely due to fear of repercussions. Studies suggest that being able to express both positive and negative emotions could help in nurturing a sense of security among employees (Rees, Alfes, & Gatenby, 2013; Morrison, 2014). Importantly, a mutually safe and generative space for expressing emotions give access to more information about the situation, and enable individuals to successfully respond to adverse situations (Keltner & Haidt, 1999), and thus, support employees to demonstrate higher resilience (Kashdan, Ferssizidis, Collins, & Muraven, 2010). Stephens et al. (2013) research suggests that the ability of individuals to express their positive and negative emotions constructively within a relationship (e.g., team and organization) is a source of resilience.

Furthermore, learning organization fosters '*team learning*', which stimulates the interactive, relational processes among individuals, and facilitate the sharing of information, learning processes, and the development of social connections among members (Watkins & Marsick, 1993). Prior research suggests that high-quality relationships among team members are mainly valuable for resilience development, since individuals collaborating in teams are better able to collectively comprehend difficult situations and figure out the best way to deal with them (Carmeli, Friedman, & Tishler, 2013). Research shows that the management teams, whose members interact cooperatively and view team relationships as helpful generate new ideas and in turn tend to be more resilient (Carmeli, Friedman, & Tishler, 2013; Winwood, Colon, & McEwen, 2013). Literature demonstrated that 'cooperative interaction' and praise from co-workers favor employees' thriving and development of resilience (Carmeli & Russo, 2016; Hodges, Keeley, & Grier, 2005; Winwood, Colon, & McEwen, 2013).

Essentially, a glance at the literature shows that '*social connections*' is a crucial factor in building resilience (Malik & Garg, 2017c; Van der Vegt, Essens, Wahlström, & George, 2015; Winwood, Colon, & McEwen, 2013). Maslow's 'Hierarchy of Needs Theory' also supported the fundamental idea that people need both self-expression and belongingness to some group in their professional lives (McLeod, 2007). Earlier researchers also demonstrated the importance of 'interpersonal relationships' (Stephens et al., 2013), social capital (Lengnick-Hall, Beck, & Lengnick-Hall, 2011), and the significance of internal 'relational reserves' in developing resilience (Gittell, Cameron, Lim, & Rivas, 2006; Powley, 2009). Correspondingly, prior research has shown that the most fruitful

avenue for cultivating resilience is by nurturing positive relationships among employees (Gittell, Cameron, Lim, & Rivas, 2006).

Also, it has been reported that '*empowerment*' upsurges an individual's resilience (Hodliffe, 2014). According to Kisekka (2015), empowerment gives individuals a sense of control and independence, resulting in positive outcomes such as an increased adaptive capacity, which foster resilience. Davidson and Moss (2010) argued that resilience is facilitated when the individual has genuine involvement, or empowerment in the workplace (cited in Bardoel, Pettit, De Cieri, & McMillan, 2014). Previous research emphasized that providing opportunities for participation and meaningful contribution helps in developing resilience (Jones, 2002).

Furthermore, learning organization culture fosters knowledge sharing structures through '*embedded systems*' that allow employees to acquire and share information and provide opportunities for mutual learning between individuals at the workplace (Li et al., 2009; Lin, 2007). According to Kisekka (2015), the most crucial factor for enhancing resilience was offering information access to employees.

Echoing a similar vein, Malik and Garg (2017b) found that knowledge sharing structures boost employee resilience. The authors advocated that the information sharing networks encourage feelings of social connection and foster co-ordination among employees. Effective information sharing has been found to be associated with several positive reactions, such as greater change acceptance, support for change and lower levels of uncertainty (Rogiest, Segers, & Van Witteloostuijn, 2015). In an organizational climate characterized by knowledge sharing structure, information is more broadly shared, and employees have more opportunities to enhance their proficiencies. In essence, the authors advocated that sharing of information during change processes diminish employees' resistance and concerns for change and in turn facilitate employees' ability to adapt to change, which leads to the development of employees resilience.

Research has shown that employee reactions of stress, fear, and anxiety are mostly attributed to lack of information (Bhal, Uday Bhaskar, & Venkata Ratnam, 2009). Thus, learning organization embedded systems essentially aid in reducing uncertainties and misconceptions among employees,

which in turn are conducive for the development of employees' positive perceptions about their organizations (Connelly & Kelloway, 2003; Bordia et al., 2004).

Lee, Caza, Edmondson, and Thomke (2003) advocated that organizational processes that support 'knowledge creation and sharing' triggers an interactive 'upward spiral' that generates positive emotions among employees. Also, new knowledge creation may further lead to more positive emotions, since the act of creating new knowledge increase an individual's sense of interest, while reevaluating and reinvesting old routines, which foster positive feelings, meanings and events (Frederickson, 1998, 2001). In essence, creation and sharing of knowledge give rise to self-reinforcing dynamics that engenders positive emotions, which has been reported as an important aspect for developing employee resilience (Frederickson, 2001).

Prior literature indicates that knowledge sharing structure positively influence employees attitude (Brown & Cregan, 2008; Jones, Jimmieson, & Griffiths, 2005). Effective information sharing has been found to be associated with several positive reactions among employees, such as greater change acceptance, support for change and lower levels of uncertainty (Bordia et al., 2004; Caldwell, Herold, & Fedor, 2004; Rogiest, Segers, & Van Witteloostuijn, 2015). Purushothaman (2015) suggested that structures for information sharing motivate employees to promulgate their implicit knowledge, which enhance their capabilities and in turn facilitate employee resilience. Moreover, learning organization sets forth a purposeful vision among employees through *'system connection'*, which allow them to gain meaning and satisfaction from their work that act as a crucial vehicle for fueling positive emotions, which in turn fosters employee resilience (Coutu, 2002; Fredrickson, 2001). Winwood, Colon, and McEwen (2013) also emphasized that when an organization nurtures its employees purpose and meaning at work, this in turn enable employees to find their work 'calling' (i.e., a sense of belonging and fit with core values and beliefs), which in turn stimulate employee resilience.

Most importantly, learning organization offers *'strategic leaders',* who allocate organizational resources to shape, improve, and support learning of employees and encourage them to use their learning to achieve better results (Marsick & Watkins, 2003; Carter & Greer, 2013). The leader augments the competencies and motivation of the subordinates and offer various inducements to enhance their subordinate's collaboration at work (Dadhich & Bhal, 2008). Previous research has

shown that positive feedback and praise from leaders play an important role in fostering employee resilience (Carmeli & Russo, 2016; Hodges, Keeley, & Grier, 2005; Sommer, Howell, & Hadley, 2016). Primarily, when individuals are valued or appreciated, they experience positive emotions and in turn exhibit positive reappraisal or infuse ordinary events with positive meaning, which serve to help individuals handle crisis and 'manage stress and maintain perspective' (i.e., reframe setbacks and maintain a solution focus), which has been reported as a vital antecedent to employee resilience (Winwood, Colon, & McEwen, 2013). Essentially, admiration and affection from the leaders enhance individuals' capacity to hold onto their personal values leading to momentary experiences of 'authentic living' (i.e., higher levels of emotional awareness and regulation among employees) (Winwood, Colon, & McEwen, 2013). Consequently, employees who inhabit 'authentic living' have been shown to exhibit higher levels of resilience (Winwood, Colon, & McEwen, 2013).

Likewise, Sweet (2012) found positive relationships between the seven dimensions of a learning organization and psychological capital components (i.e., hope, self-efficacy, resilience, and optimism). The study findings showed that the three psychological capital components, i.e., hope, self-efficacy, and optimism showed moderate to weak positive relationships with the seven dimensions of a learning organization (i.e., continuous learning, inquiry and dialogue, collaboration and team learning, system sharing, empowerment, environment, and strategic leadership). Whereas, the two dimensions of learning organization namely continuous learning and inquiry and dialogue showed a significantly positive relationship with resilience. The study results showed that continuous learning showed the most significant relationship with hope. Whilst, the other six dimensions of the learning organization showed a statistically significant and weak relationship with hope. Moreover, optimism showed a positive relationship with all the seven dimensions of a learning organization. The study suggested that when employees are more optimistic, they perceive the dimensions of a learning organization more favorably. Additionally, self-efficacy showed a moderately positive relationship with all the seven dimensions of the learning organization. Notably, the study findings indicated that resilience showed a significant relationship with only individual level dimensions of learning organization- i.e., continuous learning and inquiry and dialogue, and showed insignificant relationship with the team and organizational level learning dimensions of learning organization, i.e. team learning, empowerment, sharing systems, strategic leadership, and system connection.

Moreover, Shin, Taylor, and Seo (2012) emphasized that resilience could be viewed as a resource, which can be effectively developed and maintained among employees. According to their findings, HRM practices played a crucial role in cultivating an organizational environment that facilitated resilience-building among individuals. They emphasized that organizations may foster a supportive environment for employees, which could stimulate resilience development among employees (Bowles & Cooper, 2012; Truss et al., 2013).

Correspondingly, Hodliffe (2014) reported that organizational practices, such as *learning culture, empowering leadership, employee participation, and corporate communication* leads to the development of employee resilience. Recently, Cooke et al. (2016) found that High-Performance Work System (HPWS) contribute towards building employee resilience. The author's suggested that HPWS can be utilized as job resources to positively affect resilience, which further supports the existent research claim that resilience could be developed among employees.

Furthermore, McCray, Palmer, and Chmiel (2016) reported the significant role of learning organization in developing employee resilience. The authors suggested that UK Health and Social Care (H&SC) organizations should attain the qualities of a learning organization for developing resilience among their employees.

Exploring the role of learning organization in fostering employee resilience offers the opportunity to better understand how learning organization culture could play a vital role in the development of resilience among employees. These insights provide a vital elementary point for researchers who wish to develop theory and conduct empirical research on resilience in workplace context. Most importantly, understanding the dynamics of resilience in workplace context holds a significant place for IT employees and organizations, considering the fact that IT sector has been at the forefront of incessant technological developments, and operate in a very fast-changing environment.

Since IT employees' work in an exigent environment, where work roles are mentally challenging and demanding with extensive projects and aggressive timelines, it leads to higher levels of job stress and turnover rates (Messersmith, 2007; Bagga, 2013). Thus, given this fact, IT organizations have not only been facing shortage of skilled employees', rather they also have to adapt their systems and processes in accordance with the client demands, resulting in more complex projects and greater

workloads (NASCOMM, 2015a). Long working hours and constant pressure of meeting deadlines have become the hallmark of the present century, resulting in extreme pressure on employees to perform, and thus, information technology professionals have to cope up with the unexpected user demands, unmet deadlines, as well as skills obsolescence (Nair & Vohra, 2010; Padma et al., 2015). Clearly, the dynamics of employee resilience holds greater urgency and normative currency for IT professionals.

As a result, organizations need to boost their employees' resilience, which is strongly favored by a learning organization culture. The results of this study provide educators and organizational practitioners with a better understanding that resilience may be learned and developed. The present study results affirm the *'developmental perspective'* of resilience and support the claims made by researchers who argued that resilience could be developed among employees (Rutter, 2012; Winwood, Colon, & McEwen, 2013). Echoing a similar aspect, Tusaie and Dyer (2004) highlighted that resilience is vital for employees in the current chaotic and stressful environment and advocated that resilience represents a dynamic process, rather than a static characteristic. Borrero (Managing Director, Global Inclusion and Diversity at Accenture), rightly stated that, "like other critical skills, resilience can be learned" (cited in "Resilience key to keeping your job", 2010).

In essence, the present research affirm the fact that the most effective strategy for HRD practitioners is to proactively develop their employees' resilience by crafting a learning organization culture. In turn, fabricating a learning organization culture would enable organizations to overcome its traditional structures, processes and procedures and adopt a creative and flexible approach, which in turn might fuel employee resilience. This underlines the role of 'Strategic Human Resource Management' (SHRM) in shaping and developing learning organizations that could act as a momentous foundation for organizations sustainability.

4.10 Employee Resilience and Work Engagement

The study results reveal a significantly positive relationship between employee resilience and work engagement, showing support for *H2* ($\beta = 0.58$, $p < 0.01$) (see **Table 4.12**), which signify that individuals with higher levels of resilience would elicit higher engagement in their work roles.

Primarily, the underlying relationship between employee resilience and work engagement finds support from the research carried out by Kahn (1990), and modern scholars (Fletcher & Sarkar, 2012; Kantur & İşeri-Say, 2012; Mafabi, Munene, & Ntayi, 2012), who emphasized that resilience may be an underpinning factor that promotes work engagement. Kahn's assertion that psychological resources (i.e., psychological meaningfulness, safety, and availability) are essential for engagement supports the fact that resilience as a resource could play an imminent role in fostering work engagement. Specifically, when employees exhibit higher competence and confidence in their capabilities, they can bounce back from setbacks, adapt effectively to challenging situations (Avey, Wernsing, & Luthans, 2008; Luthans, Youssef, & Avolio, 2007), and generate possible means of accomplishing desired goals, and thus, display enhanced work engagement.

Similarly, Ouweneel, Le Blanc, Schaufeli, and Van Wijhe (2012) reported that the individual's positive emotional state impact one's ability to cope and remain engaged in work. The authors asserted that positive emotions facilitate goal-setting and goal directed behavior, which in turn promote work engagement. This line of thought also resonates with the work of Waddell (2015), who claimed that resilience leads to the generation of engagement among psychiatric nurses. The author's research focused on studying the correlation between levels of resilience of psychiatric nurses and their levels of work engagement. This study demonstrated that as the resilience level of mental health nurses rise, so does their level of engagement in their jobs. Likewise, focusing on mental health nurses, Edward (2005) found that resilience aid nurses in dealing with adversity and negative experiences, and in turn leads to enhanced work engagement.

Correspondingly, underpinning the tenets of *broaden-and-build theory*; Lyubomirsky, King, and Diener (2005) posited that an ambit of positive emotions foster resilience and work engagement. These positive emotions have a tendency to broaden a person's response to stressors by providing a wide range of personal resources. These wide ranges of personal resources have been shown to fuel resilience and increase adaptability to stressful environments (Frederickson, 2001). Cohn and Frederickson (2010) found that the interventions used to increase the experience of positive emotions helped to build the participant's personal resources. Specifically, the experience of receiving ample resources from the work context help employees to bounce back from stressors and, thus, feel positive emotions. The experience of positive emotions, in turn, enable them to exhibit higher resilience at workplace.

Additionally, Sweetman and Luthans (2010) affirmed the rationale of the '*Fredrickson's broaden-and-build theory*' (Fredrickson, 2001, 2003), and suggested that personal resources (e.g., hope, self-efficacy, resilience etc.) accumulate over time to 'build' resource caravans, which in turn lead to a state of well-being, like engagement (Fredrickson, 2003). Getting employees to exhibit positive emotions and their ability to trigger an "upward-spiral" can increase their resilience and could be seen as an effective reactive HRD strategy. Thus, based on the 'broaden-and-build theory', employee resilience can be viewed as a resource that fosters a high level of positive energy (vigor), strong identification (dedication) and strong focus (absorption) on one's work. In essence, it could be asserted that work engagement levels will be higher for resilient employees, as compared to employees with lower levels of resilience. Specifically, employee resilience could play a momentous role in fueling work engagement levels.

Moreover, Bakker, Gierveld, and Van Rijswijk (2006) demonstrated that resilience stimulate the motivational process among individuals and in turn lead to work engagement. According to Karatepe and Karadas (2015), employees who are self-efficacious, hopeful, optimist, and resilient generally feel energetic and dedicated and are immersed in their work. In essence, highly resilient individuals are more likely to show dedication towards their work, experience vigor, and are absorbed in their work activities.

Recently, Roberts (2016) found significant relationships between psychological resilience, work engagement, and innovative work behavior. The study was conducted in the United States among non-managerial employees. Specifically, this research examined the relationship between levels of resilience and levels of work engagement, as well as levels of resilience and innovative work behavior. According to the author, building resilience among employees may enhance their engagement and would make them more innovative. The study further advocated that practitioners should make efforts to create more innovative and engaged cultures for developing employee resilience.

Furthermore, investigating the reasons of how nurses remain engaged in spite of the adversities at work; Jackson, Firtko, and Edenborough (2007) found that that a key contributing factor that leads to thriving was 'resilience'. The authors demonstrated that mental health nurses were able to remain engaged in their work roles as a result of their enhanced resilience levels. The authors provided

significant understanding of the vital role that resilience plays in increasing the ability of individuals to engage or even thrive, while facing adversity or challenges at workplace. Jackson and colleagues (2007) found that nurses could overcome vulnerability with resilience, by building personal relationships, maintaining a positive viewpoint, using reflection techniques, and maintaining a healthy work-life balance. Moreover, Othman and Nasurdin (2011) examined the effect of hope and resilience on work engagement among Malaysian nurses. The study findings revealed that hope and resilience were positively related to work engagement.

Additionally, Cooke et al. (2016) highlighted the role of employee resilience in fostering work engagement of employees working in the banking industry in China. Drawing on the job demands-resources model, the authors tested the relationship between High-Performance Work System (HPWS), employee resilience, and employee engagement; and the mediating effect of employee resilience on the relationship between HPWS and engagement. Cooke and collaegues (2016) emphasized that resilience should be examined as a skill-oriented construct which encompass flexibility, problem-solving skills, and interpersonal relationships as its essential components. The authors demonstrated that HPWS (i.e., extensive training and development, participation in decision-making, rewards, and performance appraisal) can be utilized as job resources to positively affect resilience and subsequently foster employee engagement. They suggested that through the development of resilience, employees can become more engaged as they may have greater ability to control their work environment.

Correspondingly, Winwood, Colon, and McEwen (2013) reported that employee resilience leads to enhanced work engagement. According to Winwood and colleagues, resilience has a significant impact on recovery from work demand stress, which in turn is associated with improved engagement at work, and significantly exert a positive effect on physical health. Furthermore, Hodliffe (2014) reported that employee resilience leads to higher levels of engagement. The author underpins a dynamic perspective of employee resilience and investigated how organizations can provide enabling conditions in terms of learning culture, empowering leadership, employee participation, and corporate communication to foster employee resilience, and subsequently enhance job engagement. Hodliffe reported that learning orientation, proactiveness, positive viewpoint, network leveraging and adaptive capability marked the vital components of resilience among employees. The study results revealed that employee resilience was significantly associated with job engagement.

The model demonstrated that learning culture and empowering leadership facilitated the development of employee resilience, which results in higher job engagement.

Essentially, prior research studies affirm that resilient individual's exhibit an energetic and optimistic perspective, endure hardship, and persevere through continued adversity, and contribute to higher engagement. Resilient employees adapt and endure to the task at hand, and as a result of this tenacity, resilient employees improve their engagement levels. Resilient employees' engender capabilities including increased levels of coping skills (Grant & Campbell, 2007), and flexibility in unexpected situations (Coutu, 2002; Masten & Reed, 2002), which enable individuals to elicit higher work engagement.

In addition to the ability to persist through challenging times, resilient individuals display specific characteristics, which ultimately elicit new skill development. Resilient employees not only sustain through challenges, they also exhibit confidence in their abilities, which ultimately lead to enhanced levels of work engagement (Cooke et al., 2016; Hodliffe, 2014). Therefore, employee resilience could be seen as an imperative strategic resource for fostering work engagement.

Furthermore, resilient individuals possess numerous positive attributes that assist them in adapting to adverse situations, including possession of optimistic and energetic outlooks on life (Block & Kremen, 1996), curiosity and openness to new experiences (Waugh, Fredrickson, & Taylor, 2008). Moreover, resilient employees maintain energetic life perspective (Block & Kremen, 1996), and invest themselves fully into meeting the challenges of job demand, thus, reinforcing individual's engagement. Also, resilient employees build meaningful relationships at the workplace, which in turn facilitate work engagement (Christian, Garza, & Slaughter, 2011; Kahn, 1990).

The existent literature shows that resilient individuals are generally more motivated and engaged in their work (Bakker & Demerouti, 2008). Drawing on the work of Xanthopoulou et al. (2007a, b), who suggested that personal resources can be independent predictors of work engagement; Bakker and Demerouti (2008) stressed that resilience, self-efficacy, optimism, and self-esteem are among the most important personal resources having positive effects on work engagement. The authors demonstrated that employees scoring high on resilience are more engaged in their work. Additionally, Bakker, Gierveld, and Van Rijswijk (2006) found that employees with higher

resilience received better job performance ratings than employees with lower resilience. Bakker and colleagues (2006) in their study among female school principals found that individuals possessing higher personal resources (e.g., resilience, self-efficacy, optimism, and self-esteem) exhibits enhanced work engagement (Bakker, Emmerik, & Euwema, 2006). According to the authors, in addition to social support from team members and colleagues, opportunities for development, and social support; personal resources, such as resilience, self-efficacy, and optimism contribute to work engagement (cited in Bakker & Demerouti, 2008). Thus, the authors confirmed that resilience facilitates work engagement.

More specific to this study's context, findings avow that resilient employees might demonstrate superior engagement levels proving invaluable to an organization's overall performance, which ultimately benefits an organization's effectiveness. It is a well-known fact that besides extended working hours, today's employees work in a perplexing environment, where work roles have become extremely stressful, with strict deadlines and multitasking and are required to work in different time zones (Messersmith, 2007; Bagga, 2013), and thus, organizations necessitate highly resilient employees, which remain engaged even during arduous and demanding situations (Malik & Garg, 2017d).

Thus, the present research provides significant direction to organizations operating in day-to-day challenging work settings. Most importantly, employee resilience would benefit organizations in the current unprecedented working climate where lay-offs, downsizing due to limited resources, and increasing employee workload and responsibilities taxes employees' morale and engagement levels. Instead of boggling down to workplace hardships, resilient employees endure challenges and effectively adapt to hardships and setbacks, which ultimately fuel their engagement levels (Peterson, Walumbwa, Byron, & Myrowitz, 2009). Thus, fostering resilience would provide employees with the ability to perceive change and challenges as opportunities, which would thus, allow employees to elicit higher engagement levels. Along these lines, organizations focusing on developing their employees' resilience could expect improved satisfaction and financial performance, higher staff retention, and decreased absenteeism of staff (Dean, 2011).

4.11 Learning organization and Work engagement

The current study findings reflect a significant relationship between learning organization and work engagement, offering support for **H3** ($\beta = 0.35, p < 0.05$) (see **Table 4.12**). Thus, it affirm that when organizations would set learning organization culture as their principal priority, employees would elicit higher work engagement. The concept of work engagement has garnered enhanced attention with the rise of positive psychology that has shifted the focus from malfunctioning towards human strengths and optimal functioning (Seligman & Csikszentmihalyi, 2000).

The current study findings provide support to prior research studies, which demonstrated that learning organization exerts a strong positive impact on work engagement (Park, Song, Yoon, & Kim, 2014; Song, Lim, Kang & Kim, 2014; Uday Bhaskar & Mishra, 2014). Based on the study findings, it can be claimed that learning organization culture could play a vital role in facilitating work engagement. This implies that a learning organization culture becomes foundational for employees to perform more efficiently by performing work tasks more energetically, exhibiting a sense of enthusiasm, and engrossment at work (Schaufeli & Bakker, 2004).

Corroborating with the prior research findings, the study results support the fact that the existence of a resourceful work environment may enhance employees' expectations regarding the attainment of work-related goals (Michel, Kavanagh, & Tracey, 2013). Specifically, a resourceful work environment enables a person to direct energy in dedicatedly pursuing a goal and becoming engaged (Gallagher & Lopez, 2009). Thus, once employees perceive their organizational environment as benevolent and management's good intentions, they may be intrinsically motivated, and tend to evaluate events and individuals in a positive rather than negative way, and thus, display high energy, full concentration and enthusiasm at work (Iverson, Olekalns, & Erwin, 1998). Such employees demonstrate high levels of work engagement.

The findings of the present study, i.e., learning organization culture fuels work engagement further finds support from the previous research studies, which claimed that organizational support and resources significantly influence work engagement (Cooke et al., 2016; Hodliffe, 2014; Saks, 2006). Resonating these findings, a survey study from the 'American Society for Training and Development' (ASTD) found that a supportive learning culture that provide quality training, assist leaders and managers with skills in coaching employees, allocate resources, and improve

relationships with employees result in enhanced work engagement (cited in Park, Song, Yoon, & Kim, 2014).

The existent research reveals that a workplace culture which stimulate the employees psychological conditions of meaningfulness (in terms of job enrichment, work-role fit), safety (through supportive manager and co-workers), and availability (in terms of resources available), would have more engaged employees (May, Gilson, & Harter 2004). Bakker, Albrecht, and Leiter (2011) claimed that when organization provides an environment which is resourceful, it consequently augments work engagement. The authors suggested that when organizations offer a supportive, and involving workplace climate, this in turn facilitates work engagement. Bakker and colleagues advocated that employees' perceptions of how they perceive workload, control, reward, community, fairness, and values at workplace determine a climate for engagement. The authors suggested that the "climate for engagement" (i.e., challenging and resourceful climate) influence employee perceptions of job demands and job resources, which in turn impact work engagement. Resourceful work environments are likely to motivate employees to dedicate their effort to the work task and to engage in their work roles (Bakker & Demerouti, 2007).

Empirical research evidences have shown that job resources, such as autonomy, social support from supervisors and colleagues, task variety, and learning opportunities are positively associated with engagement (Hodliffe, 2014; Bakker & Demerouti, 2014). Attridge (2009) emphasized that leadership style, and corporate culture can act as vital strategies for fostering work engagement.

The current study results further corroborate with the findings of Biggs, Brough, and Barbour (2014), who reported that the individual perceptions of workplace culture predict engagement. This finding contributes to growing evidence of the beneficial effect of positive and supportive work environment on individual and organizational outcomes (Brough & Biggs, 2010; Edwards & Peccei, 2010; O'Driscoll & Brough, 2010).

Attridge (2009) in their review of work engagement literature found that work engagement can be improved through supervisory communication, job design, resource support, working conditions, corporate culture, and leadership style. These results are in accordance with the present study findings, which indicate that learning organization culture act as a critical enhancer of work engagement. By examining the influence of learning organization on work engagement, this study

offers significant preliminary knowledge that learning organization culture could be utilized to improve work engagement levels of employees.

A glance at the literature reflect that an ingenious working milieu is more likely to motivate employees to dedicate their effort to achieve their work goals and become engaged in their work (Bakker & Demerouti, 2007). For instance, Bakker and Demerouti (2007) reported that job resources such as social support, performance feedback, and empowerment initiate a motivational process leading to work engagement. Shuck, Reio, and Rocco (2011) reported that employees need capacity, motivation, and freedom to engage that requires a sense of competence, feeling valued, having purpose, and the opportunity to increase their skills.

Prominently, a learning organization culture not only offers continuous learning opportunities, promotes inquiry and dialogue, foster collaboration through team learning, empower employees, provide knowledge capturing systems, but also fosters system connection by linking the organization to its internal and external environment, and provide strategic leaders, who act as key stimulators for enhancing work engagement.

Learning organizations offer *'continuous learning opportunities'* to their employees that have been reported to play a key role in enhancing work engagement. Employees become engaged when they are provided with ample opportunities to grow within the organization through various individual and career development programs (Glen, 2006). According to Bakker and Demerouti (2008), development opportunities stimulate work engagement, since such opportunities satisfy employees need for competence (intrinsic motivational role), and therefore, enhance individual's willingness to invest effort in one's work (extrinsic motivational role).

Bakker, Emmerik, and Euwema (2006) also found that development opportunities significantly enhance engagement. Sarti's (2014) study also suggested that greater learning opportunities significantly influence work engagement. These findings notably shows that an organization's investment in cultivating their employees' knowledge, skills, and capabilities can significantly enhance their engagement levels.

Resonating a similar school of thought, research studies have shown that skill variety, autonomy, and learning opportunities are positively associated with work engagement (Schaufeli & Salanova, 2007; Bakker & Demerouti, 2008). Existent literature reflect that organizations that support employees learning and development significantly augment work engagement (Shuck & Rocco, 2014). The development opportunities provide pathways for employees' growth and competence, which support them for future challenges (Crawford, Rich, Buckman, & Bergeron, 2014). Schaufeli and Salanova (2010) also emphasized that organization's career development initiatives that are specifically directed toward fostering employees' personal growth and development significantly leads to high engagement.

Moreover, learning organization supports questioning and experimentation by promoting *'inquiry and dialogue'* among employees (Marsick & Watkins, 2003). Through inquiry and dialogue, employees are able to express one's authentic self, which has been reported to fuel work engagement (Shuck & Wollard, 2010). According to Kahn (1990) when employees are free to express and employ their authentic selves or withdraw and defend their authentic selves at work, this leads to the generation of psychological safety among workers, which has been reported as a significant predictor of work engagement. Rees, Alfes, and Gatenby (2013) revealed that when employees believe that they have opportunities for voicing their opinions and are able to influence major organizational decisions, this in turn generate work engagement.

Resonating similar findings, Farndale, Van Ruiten, Kelliher, and Hope-Hailey (2011) argued that 'voice' provide opportunity to employees' to communicate their views, and stimulates their belief that their contributions are valued, which in turn foster employees level of respect towards the organization. Research has shown that when individuals are offered with the opportunity to voice their opinions freely, this in turn leads to enhanced perceptions of equality among employees (Bhal & Ansari, 2007). In fact, employees are likely to exhibit higher levels of trust in top management, when they are offered with adequate explanation about the management decisions, and are allowed to express their concerns freely (Watson, Scott, Bishop, & Turnbeaugh, 2005). When employees exhibit a higher trust in the employer and become assured that the management will fulfil their obligations in the future, this in turn stimulate employees to display higher engagement.

Indeed, employees are more willing to commit to acting cooperatively in high-risk situations when they believe those with whom they must collaborate or work under are competent, dependable, and likely to act with integrity (in the present and in the future) and care for their interests. Organizations functioning with cultures that value openness and trust, thus, contribute to the development of adaptive capacity (competence), which in turn contribute to the development of employee resilience.

Moreover, learning organization offers a supportive learning environment that foster *'team learning'* among employees (Watkins & Marsick, 1996). Team learning has been reported to play a crucial role in encouraging employees to work in collaboration and foster high levels of dedication (Redman & Snape, 2005). Team learning fosters collective approach among employees to ensemble their personal goals with group goals (Amidon, 2005). This also finds support from the cultural aspect prevalent in India, where nature of work relationships would be important for the team members' performance (Sinha et al., 2010).

Losada and Heaphy (2004) reported that enhanced connectivity among team members leads to the development of 'interpersonal relationships' among employees. Research has shown that interpersonal processes like cooperation, mutual trust, etc. play a significant role in the smooth functioning of teams (Ganesh & Gupta, 2010), which ultimately boost their engagement. Moreover, previous literature demonstrated that co-worker interactions that are supportive and rewarding foster feelings of belongingness and psychological safety among employees (Bakker & Demerouti, 2008), which has been reported to play a crucial role in generating work engagement (Kahn, 1990).

Most importantly, learning organization involve employees in creating and implementing a shared vision among employees through *'empowerment'*. Previous studies highlighted that when employees are empowered, and are involved in decision-making, this in turn act as key drivers facilitating work engagement (Robinson, Perryman, & Hayday, 2004). When employees are given the opportunity to take decisions, they in turn exhibit more efforts to achieve their work goals and display higher productivity (Sinha, 1990; Tripathi & Tripathi, 2009). Enabling employees to highly impact their work environment encourage employees to participate in various organizational activities (Markey & Townsend, 2013), which in turn increase their commitment levels. Echoing a similar perspective, Sahay and Gupta (2011) demonstrated that participation influences

organizational commitment and stimulate enhanced interpersonal relationships among employees. Strong interpersonal relationships has been reported as vital antecedents to work engagement (Schaufeli & Bakker, 2004; Warshawsky, Havens, & Knafl, 2012).

Additionally, learning organization provides *'embedded system'* for sharing information among employees and freely access information and disseminate their implicit knowledge (Purushothaman, 2015). Browning, Edgar, Gray, and Garrett (2009) advocated that information sharing structures foster feelings of worth among employees, which subsequently trigger favorable attitude among employees resulting in work engagement (Kuvaas & Dysvik, 2010). According to Singh and Srivastava (2009), high quality exchange relationships are influenced by mutual trust among subordinates and supervisors. The authors suggested that interpersonal trust is essential, since it provides an open system necessary for knowledge development and dissemination. Purcell (2010) stressed that when employees are denied the opportunity to communicate with or receive information from their managers, it results in employee disengagement (cited in Rees, Alfes, & Gatenby, 2013).

Essentially, learning organization foster *'system connection',* which ensemble employees' roles and tasks to larger organizational missions and purposes, which subsequently enhance work meaningfulness, and thus, increase the opportunities for engagement to occur (Bunderson & Thompson, 2009; Duffy & Sedlacek, 2007). The current trends have brought a realization among the firms that in order to compete effectively in a competitive environment; they need to focus on the larger community interest in the markets (Sandhu, Pathak, & Pathak, 2013). Inculcating system connection within the organizational structure motivate employees to devote their full selves into their work, which successively generates work engagement (Kahn & Fellows, 2013). Literature has shown that when employers focus on contributing to the economic development, while working for the local community and society, this in turn enhance employees' motivation, morale and their productivity at workplace (Dokania, & Pathak, 2013).

Moreover, learning organization provide *'strategic leaders',* who encourage and support learning of employees and in turn play a vital role in boosting work engagement. Numerous studies reported that when leaders support learning, provide consistent feedback, and offer supportive and trusting climate; employees in turn develop feelings of safety in their workplace, which in turn generate work engagement (Schaufeli, Bakker, & Van Rhenen, 2009). Previous literature shows that supervisor

support enhances work engagement (Bakker & Demerouti, 2008; Othman & Nasurdin, 2013; Suan & Nasurdin, 2016). When supervisor shows concern for employees' needs, is supportive and trustworthy, provides positive feedback, and encourages open communication channels, allows opportunities for expansion of skills and fosters a safe working environment, this in turn boost work engagement (Diedericks & Rothmann, 2013). Research demonstrates that leaders can actively develop employees' capacity, motivation and freedom to engage (Macey, Schneider, Barbera, & Young, 2009). Also, study claims that when managers are trustworthy and respectful, this enhance employees' engagement at workplace (MacLeod & Clarke, 2009, cited in Alfes, Shantz, Truss, & Soane, 2013).

Congruent with the current study results, Uday Bhaskar and Mishra (2014) demonstrated that learning organization foster work engagement. The authors found that the two learning organization dimensions, namely system connection (connecting organization to environment) and empowering employees strongly predicted work engagement. They emphasized that organizations must design systems in such a way that employees feel empowered on jobs and must offer their employees with continuous learning opportunities, wherein they can develop right connections to the environment and can shape up and re-skill themselves.

Moreover, Song, Lim, Kang, and Kim (2014) provided empirical evidence for the underlying relationship between learning organization, team performance, and employee engagement in Korean for-profit firms. The study findings showed that learning organization significantly impact employee engagement, and subsequently affect team performance directly and indirectly through mediating effect of employee engagement. The results of the study reflected that employee engagement fully mediated the relationship between learning organization and team performance. This research provided vital scholarly indications on the significance of learning organization in enhancing work engagement.

Park, Song, Yoon, and Kim (2014) investigated the relationship between learning organization, work engagement, and innovative behavior. The authors found that learning organization culture significantly impacted work engagement. Also, the study found that learning organization culture significantly influence employees' innovative work behaviors. The study found that work engagement exerted a full mediating role on the relationship between learning organization and

innovative work behaviors. Drawing on the tenets of 'broaden-and build' theory (Fredrickson, 2001), the authors advocated that when individuals experience positive emotions, they are more likely to perform beyond expectations in their assigned tasks and tend to be more flexible, creative and proficient, which in turn influence an individual's innovative behavior. Park and colleagues (2014) emphasized that positive emotions trigger creative and explorative thinking and idea generation (Fredrickson, 2001), which significantly influence innovation process.

In addition, Senge (2006) emphasized that although all individuals have the ability to learn, the organizational structures in which they function are often not often favorable for stimulating employees' engagement. Thus, learning organization motivates people by offering them various structures and processes, which support employees to become excited, energized, and engaged in their work. Therefore, learning organization culture makes a positive contribution to work engagement. Beatson, Lings, and Gudergan (2008) stressed that creating a supportive organizational climate is critical for enhancing employee engagement. Thus, fabricating a learning organization culture might play a vital role in fostering work engagement; and the highly engaged workforce in turn could add competitive advantage and foster organizational effectiveness.

In essence, the study results offer significant implications for IT organizations, since growing evidence reveals that knowledge-based firms such as IT companies operate in an environment that is increasingly prone to changes, and thus, engaged employees are the critical necessity for these organizations to sustain in the competitive and uncertain environment. Thus, highly engaged workforce is a crucial necessity for IT organizations because of the multifaceted milieu prevalent in the IT organizations (Hall & Fourie, 2007).

The study results, thus, emphasize the prominence of creating a learning organization culture to managers and business leaders as they may view building engaged workforce as an incentive to change. The findings not only provide a new direction for academic scholars by explicating relationship between study variables, but also generate an important implication for organizational practitioners. Above all, emerging research has found that interventions aimed at improving work engagement can lead to beneficial outcomes for both the employees and the organizations (Luthans & Peterson, 2002; Osatuke et al., 2009). Undeniably, work engagement is associated with a number of favorable organizational outcomes such as task performance, organizational citizenship behavior,

and customer loyalty (Christian, Garza, & Slaughter, 2011; Salanova, Agut, & Piero', 2005). Thus, this study advocates a key strategy for IT organizations for cultivating a highly engaged workforce by investing in learning organization culture to meet the changing and evolving partnership between employees and employers.

4.12 Mediating role of Employee Resilience between Learning Organization and Work Engagement relationship

Finally, the study findings revealed that employee resilience partially mediated the relationship between learning organization and work engagement, thus, offering partial support for *H4* ($\beta = 0.23$, $p < 0.05$). Since, the effect of learning organization on work engagement ($\beta = 0.35$, $p < 0.05$) diminishes with the presence of employee resilience but still remain significant ($\beta = 0.12$, $p < 0.05$), this supports the partial mediating effect of employee resilience on the relationship between learning organization and work engagement (see **Table 4.13**).

The current study results signify that learning organization culture foster employee resilience and subsequently enhance work engagement both directly and indirectly through the mediational pathway of employee resilience. Specifically, the findings suggest that learning organizations contribute to the development of employee resilience, which further enable individuals to become more engaged. The present research findings, thus, offer preliminary support for the mechanism supporting the mediating role of employee resilience between learning organization culture and work engagement relationship. Thus, it adds to the existent research domain by providing a new perspective on resilience within the workplace. Considering the significance of work engagement in organizational success and productivity (Babcock-Roberson & Strickland, 2010; Bakker & Demerouti, 2008), the mediating relationship identified in this study holds a concrete significance. Although, employee resilience did not fully explain the relationship between learning organization and work engagement, the partial mediating liaison show that organizations can significantly enhance their employees' engagement by fostering their resilience at work.

The present study results, thus, imply that organizations must fabricate a learning culture in order to establish a workforce that is able to cope and perform effectively during stressful organizational changes (Shin, Taylor, & Seo, 2012). The present study assertion that learning organization culture

plays a vital role in enhancing work engagement is also strongly supported by the existent research studies (e.g., Park, Song, Yoon, & Kim, 2014; Song, Lim, Kang, & Kim, 2014; Uday Bhaskar & Mishra, 2014). Consequently, organizations should provide continuous learning opportunities to employees, promote shared vision through empowering employees, provide structures for knowledge sharing, encourage team learning and collaboration, and create a safe environment for employees to voice their views and concerns. Moreover, organizations should create 'system connection', which nurture purpose and meaningfulness among employees, and should provide strategic leaders, who in turn move the employees and organization towards a strategically advantageous position (Marsick & Watkins, 1999).

Furthermore, along with predicting work engagement directly, learning organization culture also influence work engagement through the mediating effect of employee resilience, which subsequently impact work engagement. This finds support from research conducted by Kahn (1990), who suggested that work engagement is a product of two different forces: an individual's respective psychological experience of work that drives their attitudes and behavior and the integrated effect of both the individual and organizational culture that influence this experience. Therefore, engagement is not only a product of one's individual drives, but it is also influenced by outside factors that may motivate one to become engaged in a particular role (Kahn, 1990).

Thus, based on the current study findings, it implies that a learning organization culture provide employees with favorable structures and processes, which motivates them to take advantage of opportunities at work and effectively meet workplace challenges, and thus, become resilient at workplace. Consequently, resilient employees perform more competently by captivating more proactive responsibilities and perform work tasks with high eagerness leading to enhanced work engagement (Schaufeli & Bakker, 2004). Therefore, a learning organization culture plays a catalytic role in developing employee resilience, which in turn affect work engagement (Poropat, 2010).

Hodliffe (2014) also reported that employee resilience played a significant mediating role in the relationship between learning culture and job engagement, as well as learning culture and job satisfaction. The research findings demonstrated that employee resilience mediated the relationship between empowering leadership and three organizational outcomes, i.e., job engagement, job satisfaction, and intentions to turnover. The results infer that even though there learning culture

directly effect job engagement, when controlling for employee resilience, resilience played a partial mediator role in these relationships. The findings indicated that learning culture impact employees' resilience, which in turn influenced job engagement.

Resonating present study findings, Wadell (2015) asserted that organizations should create a workplace culture that allow employees to be empowered to take responsibility and move forward from stressful situations. Employees can then spend their energy in nurturing positive behaviors and move beyond simple survival into resilience, personal power, and finding significance in their work life (Larry Chapman, Lesch, & Aitkin, 2005). The author suggested that an intentional focus on creating an environment that fosters or builds resilience would lead to a work environment with more engaged staff and more positive outcomes.

Moreover, Grafton, Gillespie, and Henderson (2010) also demonstrated that resilience levels could be increased and improved throughout the lifespan as an individual encounters and lives through different situations. The present study resonates with these authors, showing that resilience can be developed among employees. When employees perceive that the organization is focused on developing their resilience and their skills, they in turn are inclined to feel engaged in something great and might exhibit citizenship behavior (Mastrangelo, 2009).

Corroborating with the abovementioned study findings, it can be asserted that employees in a resourceful work environment exhibits resilience. Furthermore, resilient employees' exhibit enhanced engagement in their work, leading to support the hypothesis that employee resilience partially mediates the relationship between learning organization and work engagement. Specifically, job resources (e.g., autonomy, supervisory coaching, and performance feedback), owing to their motivational role stimulate employees to accomplish their goals, and thus, lead to positive job outcomes (Bakker & Demerouti, 2008; Xanthopoulou et al., 2007b). Prior research advocated that job resources also boost personal resources (e.g., resilience), which in turn results in enhanced engagement levels (Bakker & Demerouti, 2008).

Echoing a similar vein, Luthans, Norman, Avolio, and Avey (2008) emphasized that supportive work environment enhance job performance via the mediating role of psychological capital.

Therefore, employees with personal resources (e.g., hope, self-efficacy, optimism, and resilience), in turn go the extra mile and exhibit enhanced engagement to achieve their goals.

Moreover, prior research advocated that Human Resource Management (HRM) policies and practices could affect employee resilience, enabling the organization to improve and more successfully adapt to change and adversity (Bardoel, Pettit, De Cieri, & McMillan, 2014; Robertson, Cooper, Sarkar, & Curran, 2015). Recently, Cooke et al. (2016) advocated that employee resilience can be viewed as a set of skills and attributes that can be developed through the effective use of High-Performing Work System (HPWS) to benefit both individuals and the organization. This study examines the relationships among HPWS (i.e., extensive training and development; participation in decision-making; reward and performance appraisal), employee resilience, and work engagement among employees working in the Chinese banking industry. According to the authors, high performing organizations encourage innovation, quality progression, and instant adaptation by providing pertinent information, suitable assistances, inducements, and participatory mechanisms to their employees. Through the creation of a diverse set of skills and appropriate attitudes and behaviors, the bundle of HPWS may foster employee resilience and enable employees to adapt more efficiently in the dynamic complex environment, and in turn fuel work engagement. Additionally, prior research studies have also demonstrated that employee resilience positively effect work engagement (Karatepe & Olugbade, 2009; Paek, Schuckert, Kim, & Lee, 2015).

Additionally, supporting the mediating role of employee resilience, previous research asserted that personal resources are related to work engagement, and can be deployed to explain and account for the enhancement of work engagement. In this connection, numerous studies have indicated the relationship between personal resources (e.g., optimism, self-efficacy, self-esteem); as well as job resources (e.g., autonomy, supervisory coaching, and performance feedback) with work engagement (Bakker, Schaufeli, Leiter, & Taris, 2008). For example, the previous study results are indicative of the fact that self-efficacy, organizational self-esteem, and optimism as personal resources; and performance feedback, social support, organizational support, and psychological climate as job resources affect work engagement (Hashemi Sheikh Shabani, Aslanpour Jokandan, & Naami, 2011; Schaufeli & Bakker, 2004; Zargaran-Moghadam & Sha'emi, 2010). This adds to the knowledge base of resilience and engagement by identifying the need for organizations to provide workplace

environment that facilitate the development of employee resilience and encourage employees to become absorbed in, dedicated to, and enthusiastic about their work.

Thus, based on the present study findings, it can be asserted that the availability of learning organization culture acts as a caravan passageway that triggers a favorable environment, which in turn promote the development of employee resilience (Hobfoll, 2011). Thus, learning organization foster employee resilience, which leads to the generation of work engagement. Since, resilient employees exhibit the resources required to successfully adapt to demanding situations at work, it is likely that they will view change initiatives as learning and development opportunities, rather than calamities or extreme violation of the psychological contract. Following this fact, it can be expected that highly resilient employees will also display higher engagement, as compared to less resilient employees, since they will more likely perceive assistance from their employer, which in turn would embolden them to exhibit enthusiasm and perseverance towards their work.

This research, thus, adds to the knowledge base regarding resilience among IT employees and demonstrates that resilience can be developed among IT employees by cultivating a learning organization culture. As employees become resilient, their engagement levels will also correspondingly increase. This offers a crucial implication to practitioners for implementing and creating a learning organization culture to facilitate the development of employees' resilience and in turn boost their work engagement. Furthermore, the findings indicate that employees who perceive their firms as learning organizations tend to be strongly resilient and in turn exhibit enhanced engagement.

Extending this finding to HRD, the study posit that employees who exhibit higher resilience would elicit confidence in performing their job well and in turn would likely exhibit higher work engagement. The present research suggest that learning organization culture should be created to facilitate the development of employee resilience, which would thus enhance work engagement. Moreover, it is imperative for practitioners to use such an integrative approach; wherein the learning organization culture tends to set the tone for developing employee resilience and such intervention would further boost engagement levels of employees.

4.13 Chapter Summary

This chapter entails the statistical analyses conducted to test the study hypotheses. Furthermore, it presents the study results and the interpretation and discussion of the findings. *Table 4.13* summarizes the results of study hypotheses.

Table 4.13: Summary of hypotheses results.

Hypotheses	Results
Hypothesis 1: Employees perceiving learning organization culture display greater levels of employee resilience.	Supported
Hypothesis 2: Employees with higher levels of resilience report greater work engagement.	Supported
Hypothesis 3: Employees perceiving learning organization culture report increased levels of work engagement.	Supported
Hypothesis 4: The direct positive effect of learning organization on work engagement was mediated by employee resilience.	Partially Supported

Chapter 5

Conclusion

5.1 Overview of the Chapter

This chapter begins with summing up the underpinnings of the study, followed by the enumeration of the contributions made by this research. The chapter also highlights the theoretical and practical implications of the study for academicians and organizational practitioners. Finally, the chapter presents the future scope and limitations of the study.

5.2 Conclusion of the study

Traditional organizations colossally focused on investing in "financial and tangible assets such as plant and equipment" (economic capital); and emphasized primarily on developing intangible assets, such as, "knowledge, skill sets, abilities, and experience" (human capital); and social capital and rather paid minimal attention towards developing the "mental capital" of employees for boosting performance. However, in today's dynamic environment, wherein employees relentlessly face frequent policy and personnel changes, retributive management, benefits and salary cuts, increased workloads, and higher stress levels, it becomes essential for organizations to recognize the importance of investing in optimizing human strength.

The organizations today are not only faced with the challenge to effectively manage the growing instability, downsizing, stress levels and attrition rates among employees, rather at the same time they have to boost their employees engagement (Scott, McMullen, Royal, & Stark, 2010). Undeniably, the traditional organizational hierarchical structures, practices and policies seems inadequate for contemporary organizations to sustain in the long run, as they are unable to adapt effectively to arduous working challenges and seize dynamic opportunities. Thus, it becomes obligatory for organizations to build a workforce that not only adapts effectively to the changing environmental demands, but also exhibits higher engagement at workplace. The present study, thus, put forth a framework for developing a highly resilient and engaged workforce by cultivating a learning organization culture.

Eventually, this is especially pertinent for high-stress occupations, where the heightened risk of exposure to acute and chronic stressors is often exacerbated by aspects of the workplace culture that

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undermine the availability of supportive job resources (Brough & Biggs, 2010, 2015). This in turn results in disengagement from work and ultimately increase withdrawal behaviors and performance deficits. In the long run, these disruptive events cannot be adequately addressed with traditional risk management systems, and thus, the academicians, managers, and policy makers need to shift their attention from identifying and mitigating risk towards developing *'employee resilience'*. In contrast to traditional risk management approaches that focus on the identification of risks and alleviating the level of vulnerability to external disturbances, the current study emphasize that organizations should embrace learning organization culture for developing employee resilience and in turn boost their work engagement.

Primarily, in the wake of escalating turbulent environment, *'employee resilience'* is probably the most important positive resource for organizations to help navigate a stressful workplace (Avey, Luthans, & Jensen, 2009), and thrive in the face of exposure to adverse situations (Rogerson & Ermes, 2008). Affirming the fact that 'resilience' is necessary to function in the "chaotic practice world" (Hodges, Keely, & Grier, 2005), the current research findings support the claim made by prior researchers that resilience might be developed among employees (Rutter, 2012; Hodliffe, 2014; Winwood, Colon, & McEwen, 2013).

The current study, thus, advocates an integrated perspective by examining the effects of learning organization and employee resilience on work engagement, thus, providing a more unified approach. This study not only contributes towards identifying the antecedent factors of work engagement in an Indian sample but also adds to the current literature by explaining the underlying mechanism of how learning organization contribute to work engagement via mediational pathway in the form of employee resilience. The study clarifies the role of employee resilience by examining it as a potential explanatory mechanism for the underlying relationship between learning organization and work engagement.

The present study among the employees of IT industry in India is the first of its kind to examine the role of learning organization in fostering employee resilience and work engagement. The study unfurls the underlying mechanism of how learning organization influence work engagement. The hypotheses results reveal that learning organization not only predict work engagement through the mediational pathway of employee resilience but it also exerts a direct impact on work engagement.

Thus, these findings may allow organizational practitioners to design and implement necessary interventions to aid their employees to effectively adapt to arduous working environment and remain engaged. Essentially, in the current era of incessant automation, HRD must turn their attention towards developing the strength of human resources for enhancing their engagement levels. Organizations need to commit to their employees by helping them develop skills and coping mechanisms to improve their employability and marketability. Specifically, the study assert that firms can help and support their employees in becoming resilient by inculcating learning organization culture, and thus, can become better prepared to sustain in the competitive market.

In essence, the present study contributes to the existent knowledge regarding the role of learning organization culture in influencing employee resilience and work engagement. The present study findings revealed that employee resilience partially mediated the relationship between perceived learning organization culture and work engagement. Thus, it is evident from the results of this study that employees consider their perceptions of learning organization within the context of the broader organizational environment and their day-to-day working lives. HRM's contribution, therefore, lies in facilitating interventions to create a holistic learning organization culture that transcends the role of the HRM department to focus on fostering employee resilience and work engagement. That is, enhancing engagement of employees will require an integrated strategy, incorporating the implementation of learning organization and focusing on the development of employee resilience.

This study, thus, laid a significant pavement for the future studies studying the impact of learning organization on employee resilience and work engagement. It is hoped that this conceptual foundation will serve as an impetus for future research on these concepts. Moreover, besides adding to the existent knowledge base, the results of this study provide useful implications for IT managers.

5.3 Implications of the study

The primary significance of any research is to make advancements to the existent literature base and offer concrete practical implications to the organizational practitioners for addressing various organizational issues. Thus, the findings of the present study embraces both academic and practical utility, which are discussed in the below mentioned sections.

5.3.1 Theoretical contributions

First, from a theoretical contribution perspective, in spite of all the knowledge that has been generated by past research on the construct of learning organization, there is a lack of research that has examined learning organization as a predictor of employee resilience. A glance at the existent literature shows minimal studies that have focused on resilience as an individual construct in the organizational domain and predominantly the construct has been researched as a part of psychological capital component (Sweet, 2012; Luthans, 2007). Also, there are scant research studies to date, which investigated the role of employee resilience in influencing work engagement. Research shows a significant relationship between learning organization and resilience as a part of psychological capital component (e.g., Sweet, 2012), nevertheless researchers lacked in investigating the relationship among learning organization, employee resilience, and work engagement. To date, this is the first study which explored the roles of learning organization culture and employee resilience in fostering work engagement of Indian IT employees.

Thus, this study provides vital insights into the relevance and implications of learning organization and employee resilience as predictors of work engagement. This study not only validates the use of 'Resilience at Work' (RAW) scale (Winwood, Colon, & McEwen, 2013) for Indian IT population, but at the same time provides empirical evidence that employee resilience contributes to enhanced work engagement.

Over the years, numerous case studies, theoretical reviews, and applied articles have enunciated the eminent role of resilience (Langvardt, 2007; Maddi & Khoshaba, 2005; Payne, 2009). Yet, the vast majority of literature revolving around resilience fails to provide any explanation; and virtually offers scant evidence about its development and practical implication at workplace (Rutter, 2012; Winwood, Colon, & McEwen, 2013). In fact, existent literature on resilience till date treats resilience as a trait or resource, rather than as a state and developable capacity, which can be fostered at workplace (Moenkemeyer, Hoegl, & Weiss, 2012).

Resilience has been a topic of psychological research for decades (Kashdan, Ferssizidis, Collins, & Muraven, 2010; Luthar, Cichetti, & Becker, 2000). However, only recently has the concept of resilience received increased attention for its importance to organizations. Indeed, resilience

interventions are still pristine at workplace, and research is insufficient to assess its practical outcomes. Thus, the present study brings attention towards its implications in the organizations, and thereby adds to the literature. Also, predominantly the resilience research has been conducted among Western population, thus addressing this gap; the present study provides empirical evidences in Indian context. Furthermore, the present study advocates resilience as a resource capacity that is needed not only in some major crisis or emergency situations like the Tsunami or an earthquake, but is required by employees in day to day functioning at work as well.

A glance at the existent literature indicate that as compared with the amount of research conducted on examining work-related stress from the perspective of distress and its associated negative emotions, research on human strengths has been inadvertently marginalized. This imbalance in research has been reported by Cooper, Flint-Taylor, and Pearn (2013) who emphasized that, "little to say on what contributes to and builds qualities such as resilience, hope, and happiness". This study, thus, contributes to the body of knowledge by advocating the *'developmental perspective'* of resilience, i.e., it can be developed as a capability among employees. Entrenched within the sphere of positive psychology, the present study takes a progressive approach to understanding and furthering the development and practical application of employee resilience at workplace.

Thus, this research make theoretical contributions to the developing body of resilience literature by advocating that employee resilience must be seen as a capacity that can be developed by investing in learning organization. The study results affirm that resilience is a dynamic process through which a person does not simply possess the protective factors as personal characteristics but is instead able to access the resources in a coping and adaptation process that can be taught (Grafton, Gillespie, & Henderson, 2010). The study findings are consistent with those of existent studies that had shown that resilience at workplace can be developed as a capability among employees (Hodliffe, 2014; Rutter, 2012; Winwood, Colon, & McEwen, 2013). This finds support from the extant literature, which suggests that employee resilience could be developed through caring relationships at workplace (Wilson & Ferch, 2005), and through social support networks and employee participation (Markey, Ravenswood, Webber, & Knudsen, 2013).

Moreover, though there is a bulk of literature on work engagement, the roles of learning organization culture and employee resilience as antecedents to work engagement have been rarely

examined. Till date, researchers have reported significant implications of work engagement on employees' attitude and discretionary workplace behaviors (Babcock-Roberson & Strickland, 2010; Bakker & Demerouti, 2008). However, despite the important consequences of work engagement, research on drivers of work engagement is inadequate and lacks a cohesive direction (Wefald & Downey, 2009). Majority of researchers have intensely focused on the personal resources (e.g., optimism, self-efficacy, self-esteem); and job-related antecedents to work engagement (e.g., autonomy, social support from supervisors and colleagues, task variety, and learning opportunities) (Bakker & Demerouti, 2007; Bhatnagar, 2012; Chaudhary, Rangnekar, & Barua, 2012; Quiñones, Van den Broeck, & De Witte, 2013).

Furthermore, various studies have been conducted on the concept of learning organization at both the academic level (Sackmann, Eggenhofer-Rehart, & Friesl, 2009), and managerial level (Garvin, Edmondson, & Gino, 2008). However, majority of these studies focused predominantly on exploring practices for establishing a learning organization (Wen, 2014; Shipton, Zhou, & Mooi, 2013; Huang & Shih, 2011), and examined measurement tools for measuring learning organization construct (Song, Chermack, & Kim, 2014; Kim, Egan, & Tolson, 2015). Nevertheless, there is scarce research which investigated the relationship between learning organization and work engagement in Indian context. Thus, addressing this crucial gap, this study investigated the relationship between learning organization, employee resilience, and work engagement in IT organizations in India.

Most importantly, the research findings demonstrate that resilience levels could be increased and improved, as resilience grows, the employees' engagement in work also correspondingly increase. This offers crucial information to administrators for designing learning culture to assist employees in nurturing their resilience at work for enhancing work engagement. Identifying these relationships assist human resource leaders in understanding the role of learning organization in developing a resilient and engaged workforce.

While a few research studies have shown that learning organization culture is associated with work engagement (e.g., Hodliffe, 2014; Song, Lim, Kang, & Kim, 2014; Uday Bhaskar & Mishra, 2014), no research till date offered evidence of the mediating effect of employee resilience on the relationship between learning organization and work engagement. The findings of this study suggest that learning organization is effective in fostering employee resilience, which subsequently facilitate work engagement. Therefore, in order to develop a highly engaged workforce, organizations need

to create and sustain learning organization culture that promotes not only the development of resilience among employees but also boost work engagement.

The present study results emphasize that the more a company bases its operation on learning organization model, the higher will be its employees' performance. This finding is in congruence with researches carried out by Camps and Luna-Arocas (2012); Kontoghiorghes, Awbre, and Feurig (2005); and Yang, Watkins, and Marsick (2004); who found learning organization dimensions to be crucial determinants of staff productivity and effectiveness. Thus, from a practitioner's standpoint, findings from this study are expected to help managers, HRD professionals, organizations, and other stakeholders seeking recommendations on specific practices that could lead to a highly engaged workforce. IT employees might reap benefits from the current research that could help them to face daily challenges in their professional lives.

The results of this study may inform HR practitioners with information on the influencing variables of resilience. As Edward (2005) stated, research that increases the knowledge of resilience and work engagement can offer information to educators and administrators that will assist in designing training modules and/or intervention strategies to develop employees resilience in the workplace. Thus, this study holds vital significance as it offers momentous direction to organizations on interventions that would lead to increased resilience among employees and subsequently enhance work engagement.

5.3.2 Practical Implications

This study offers significant implications for the organizational practitioners. The potential significance of this study is discussed from societal and practitioners perspectives. From a practitioner's standpoint, findings from this study are expected to help managers, HRD professionals, organizations, and other stakeholders seeking recommendations on specific practices that could lead to a highly engaged workforce.

The study findings provide an inevitable reminder to HR practitioners to first and foremost cultivate a learning organization culture to successfully address the demands of innovation and critical environmental challenges. The current study reinforces the need to continuously invest in promoting a learning culture, which offers continuous learning opportunities to employees, foster an environment for inquiry and dialogue and collaborative learning, build knowledge sharing structures,

empower employees, connect organization to external environment, and develop strategic leaders. The holistic view of learning organization can go a long way in terms of facilitating the development of employee resilience and in turn augmenting work engagement that could play a vital role in fostering organizational effectiveness. Thus, organizations need to design their work culture in such a way that employees feel supported to take up workplace challenges effectively, wherein they can develop right connections to the environment, and can shape up and re-skill themselves for exhibiting higher engagement.

This study offers valuable implications to HRM specialists interested in developing effective strategies for developing their employee resilience and encouraging them to become engaged. In practical terms, this study results indicate that organizations need to be aware that, in addition to a consistent set of training interventions, the wider organizational culture is critical in establishing a positive environment. The proposed conceptual model in the study advocate an integrative approach for improving work engagement that would meet the emerging need of a changing and evolving partnership between employees and employers gearing towards organization-wide performance improvement. In fact, now a days, HRM roles are not limited to recruitment, designing training and development initiatives, and coaching and mentoring programs; rather HRM can play a crucial role as strategic business partners in creating a work culture that optimize employees wellness (Biswas, Giri, & Srivastava, 2006; Gupta & Pathak, 2016; Marschke & Mujtaba, 2011).

Hence, HRM professionals need to work closely with middle and senior managers who set organization's goals and strategies across departments to ensure that learning organization culture is implemented effectively. The study findings show that employee perceptions of learning organization culture could play an important role in raising levels of work engagement. Creating a highly resilient and engaged workforce has become a significant focus for many organizations recently (MacLeod & Clarke, 2009; Truss et al., 2013), and thus, HRM professionals, middle, and senior managers have to work together to create a virtuous cycle to ensure that employees demonstrate resilience and higher engagement. To translate these research findings into OD interventions, the organizations need to revisit their strategies and infuse a learning organization culture.

First and foremost, for creating a learning organization culture, HRM practitioners and managers need to provide their employees with *'continuous learning opportunities'* for facilitating their career growth and development. Today, employees no longer expect job security and permanence, and rather require novel skill set to survive in the chaotic world of work. In the current era, when organizations are facing hyper active competition, as well as an ever changing environment, the workforce needs to be trained not just on the products and processes but they need to be trained on professional skills like cognitive flexibility, emotional intelligence, critical thinking, complex problem solving, to name a few. The organizations need to take immediate action to fast track the up skilling and reskilling of existing employees to ensure that they have a workforce with the skills required for the future.

With competitive markets and ever-changing dynamic business needs, most organizations prefer synchronizing learning interventions for employees across locations (Bahl, 2018). Thus, organizations need to transform their learning models and strategies to continually adapt and align with changing objectives and emerging business needs. Advancement in robotics, artificial intelligence, machine learning, and robotic process automation are among the leading technologies shifting learning's strategic focus from creating individual, course-centric development strategies to building collective learning capabilities, in which learning is embedded into everyday work roles.

Therefore, HR practitioners need to design learning strategies for employees that focus on the dual goals of optimal performance and continual innovation as key differentiators. The contemporary organizations are required to indoctrinate a lifelong learning concept, wherein HR professionals must ensure that the right training interventions are created for each individual making the learning personalized. To achieve this goal, practitioners must re-structure their workplace training and development strategies and inculcate 'adaptive learning strategy', which provide *employees the autonomy 'to learn when they want, and how they want'.* The key is to foster learning flexibility, where time-crunched employees can learn in course of their work, at their own convenience, from anywhere, and at any time. The new approach of incorporating 'Technology Enabled Blended Learning' (TeBL) seems to be the appropriate solution for imparting customized learning programs (Bahl, 2018). Through the combination of instructor-led model, live-projects, labs and online self-learning, employees can learn from world-class faculty via multiple online classrooms that are scheduled across time-zones, providing the flexibility to learn based on an individual's availability,

which in turn could produce remarkable results in terms of enhanced engagement ("With outcome based skilling programmes", 2016).

Today, the global learning leaders and senior executives are utilizing *'human capital analytics'* to help their organizations to make smarter, faster decisions when recruiting and developing talent and structuring learning models that aligns with strategic goals and employee capabilities. *'Human capital analytics'* is one of the latest sophisticated data mining and business analysis techniques to explore human resources data (Pease, Byerly, & Fitz-enz, 2012). The use of 'human capital analytics' effectively link learning and development processes to business priorities, and inform decision makers about continuous improvement actions. In today's data revolution era, learning organizations are increasingly relying on advanced analytics to communicate their value and apply a data driven lens to strategic decisions about talent acquisition, employee engagement, and retention.

Furthermore, a learning organization culture encourages employees to express their opinions and voice their concerns and divergent opinions freely. Companies that inspire 'across-the-board communication' with fairness and offers every individual a 'voice' are more likely to recognize problems and address them proactively. Providing opportunities for participation and meaningful contribution develop employees' resilience. Free flow of inquiry and dialogues open up boundaries between employees and management and stimulate exchange of ideas. This allow both employees and management to discuss and provide their feedback on a majority of events including strategic reviews. Jack Welch (CEO General Electric) considers this process to be such a powerful stimulant of change that he has established "boundarylessness" as a cornerstone of the company's strategy (Garvin, 1993).

Additionally, learning organizations promote *'collaborative learning'* and encourage the development of social connections among employees, which significantly contribute to employee resilience (Winwood, Colon, & McEwen, 2013). Eventually, employees are more likely to feel positive about change and even be energized and excited about it, if they feel they are involved in fruitful team connections and perceive support from their subordinates. Individuals are far more motivated and engaged when they are connected to a shared purpose and feel like contributing members of their team, workplace, community, and society. Moreover, organizations should create

a 'hyperspace' or working environment, which allow employees to exhibit autonomy and foster joint vision among employees, which could be an effective HRD strategy for the development of employee resilience and enhancing work engagement.

Furthermore, learning organization culture provides information sharing structures that encourage employees to share their valuable knowledge in the form of ideas, insights, know-how, and experiences to accomplish business objectives. Besides, HR practitioners might offer *'crowdsourcing platforms'* to encourage employees to generate new ideas and suggest solutions to business problems or opportunities. Crowdsourcing can result in a wider pool of expertise and knowledge and could encourage employees to use their strengths for aligning their personal and professional goals. Crowdsourcing augments *"co-creation"* and *"citizen-sourcing"* that promotes creativity and innovation, while harnessing transparency, information sharing and consequently meaningful participation (Brabham, 2013).

Besides, learning organizations nurture a '*connect with their external environment'*. The essence of *connection* is how and to what extent the organization is linked to its community. These connections create a link among the long-term needs of individuals, society and the workplace, and motivate people to invest in continuous learning and change. When organizations ensemble employees' roles and tasks to larger organizational missions and purposes, it subsequently promote positive emotions among employees, which generate employee resilience (Bunderson & Thompson, 2009). Also, when employees share a joint vision and are completely immersed in the same interests as the company, they exhibit enhanced work engagement.

Moreover, contemporary organizations mandate a new view of leadership, i.e., *'strategic leadership'*, which in true sense play a vital role in building a 'learning organization' (Marsick & Watkins, 1993). Today's strategic or learning leaders has key responsibilities focused on managing talent, developing and coaching employees, leading organization development and addressing strategic business challenges. Thus, strategic leaders can act as credible catalysts for mobilizing organizational change and fostering innovation. Strategic leaders can become more successful in fulfilling these roles when they have credibility as a business partner who can provide sustainable value. According to Olafsson (Founder of Strategic Leadership firm that offers coaching and training to executives), "aware, authentic and purpose driven leaders who are ambitious about developing

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top performing teams and are equally focused on key performance indicators, will inspire those around them towards excellence" (Strategic leadership, 2018).

Also, HR practitioners could utilize *'mindfulness training programs'*, which can assist employees in developing their resilience. Such programs will help employees to emphasize on their current experiences, including inner experiences, such as thoughts and emotions, with a non-judgmental attitude and with acceptance (Bishop et al., 2004). A number of researchers and resilience training institutions emphasize that mindfulness interventions could be utilized for developing resilience (Bajaj & Pande, 2016; Jha et al., 2010; Keye & Pidgeon, 2013). Jha et al. (2010) study reported that 'Mindfulness-Based Fitness Training' (MMFT) shows potential as an effective method of increasing the resilience of soldiers. Those engaged in mindfulness training are better able to recognize thoughts, emotions, and physical sensations as they arise under situations of impending stress. This conscious attention allow workers to respond to stressful situations in healthier and more adaptive ways.

Mindfulness-based interventions have demonstrated significant positive effects on stress reduction and improvement of well-being for a broad range of individuals facing mental or physical health problems (Guillaumie, Boiral & Champagne, 2017). Recently, these practices have become widespread, particularly through the standardized Mindfulness Stress-Reduction Program (MBSR), proposed by Kabat-Zinn, Lipworth, & Burney (1985). Mindfulness-based interventions implemented in workplaces have been shown to improve employees' mental health (Hanson & Richardson, 2014, Virgili, 2015), and exert positive impacts on work-life balance (Allen & Kiburz, 2012), and work performance (Pezzolesi, Ghaleb, Kostrzewski, & Dhillon, 2013; Reb, Narayanan, & Ho, 2015).

Furthermore, resilience training firms offer resilience development training programs to help businesses develop their employees' resilience. One such firm is 'Value Options' that rolled out 'Building Resilience' programs, which offers a highly personalized suite of strategies, tools and services to support the development of both employees and organizational resilience ("ValueOptions launches workplace resilience", 2014). 'Building Resilience' provides a specialized evaluation tool to assess an organization's core culture and awareness, and recognize the organization's inimitable strengths and prospective challenges in nurturing an organization-wide resilience.

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Most importantly, employers, such as Sun Microsystems, Raychem, and Apple Computers, who showed higher commitment towards building a resilient workforce were benefited greatly. As they encouraged their employees to grow, change, learn and become resilient, they too became better at doing these things and were better able to handle the changes in the marketplace that might affect their business (Jones, 2002). GlaxoSmithKline, the pharmaceutical giant established its 'Team Resilience Program' to empower employee groups to recognize and alleviate pressures that affect job performance, including work roles, management practices and teamwork. GlaxoSmithKline piloted 'Team Resilience Program' resulted in global reduction in work-related behavioral health issues and a descent drop in mental health issues related to work (Pallarito, 2008).

Moreover, resilience training finds its implications in military and safety organizations as well. These organizations have rolled out resilience training programs for their members. For instance, an excellent example of this is the U.S. Marine Corps 'Operational Stress Control and Readiness' (OSCAR) program, which delivers resilience concepts in a format already familiar to US Marines alongside existing operational training (Meredith et al., 2011). The U.S. Army 'Master Resilience Trainer' (MRT) course, which provides face-to-face resilience training is one of the foundational pillars of the 'Comprehensive Soldier Fitness program'. In the same line, Indian army is also revamping training of army personnel to make them more resilient to extremely high physical and mental stress. The Defence Research and Development Organization (DRDO), the premier research and development organization in India has also undertaken projects to increase mental and physical abilities of Indian soldiers and increase their resilience to withstand high levels of stress ("Soldiers' training to be revamped", 2013).

Ultimately, in the current globalized world, only those individuals and organizations will succeed that can read the trends, quickly adapt, and contribute positively in spite of the changing working demands. Before few years, employees used to prefer employers on the basis of criteria like salary and perks, working hours, leaves and maximum insurance cover. But nowadays employees are looking for something more than just salary and said criteria. Employees look at the overall organization culture while selecting an employer. Recent studies have shown that employees look for organizations that offer learning and development opportunities, flexible work environment, and fulfill their sense of achievement (Aon Hewitt, 2015; Bersin, 2015). Undeniably, the employee-work contract has changed in the last decade, which has subsequently altered the engagement equation,

and hence, it necessitates business leaders to build organizations that engage employees as devoted and creative contributors (Bersin, 2015).

From a societal perspective, this study aims to produce more "winners" by highlighting the vital role of learning organization and employee resilience in enhancing work engagement. The knowledge gained from this study holds significance, since it may provide a better understanding of how organizations may combat employees' experiences of job stress situations and may in turn aid their employees to become resilient. Consequently, by utilizing the strategies offered in this study, the organizations may become more efficient to avert the losses associated with employee turnover and may enhance their employees' engagement.

Thus, the overriding message is that the organizations and management ought to proactively work out, adopt and create learning organization culture that would aid in developing resilience among employees and boost their engagement. Global leaders may therefore find the practical suggestions outlined in this study to have a significant impact on the strategic priorities they endorse to build an engaged workforce. For future research, this study provides a good stepping stone to verify the study constructs relationships. In addition, this study provides empirical evidence that resilience can be developed, and thus, makes a contribution to the effective arsenal of HRD techniques.

5.4 Limitations and Future scope of research

This study suffers from certain limitations. *First,* the study used cross-sectional survey which limits causal inferences. *Second,* as the study sample comprised of only IT organizations located in the various states in India, future research are required for generalizing the study results to other business sectors functioning in different parts of the country. *Third,* this study did not take the demographic differences (i.e., age, gender, educational levels, and work experience) into account. Future research should incorporate demographic differences of work unit to better understand the influence of contextual factors on the personal resources. The study results must be tested for differences at hierarchical levels and educational levels of employees.

To increase the generalizability of the study, future studies should include multiple geographical regions and sectors to satisfy the comparative research purpose. Furthermore, this study utilized a quantitative methodology, and hence, it would be more useful to use mixed approaches with

qualitative analysis, which would further provide deeper insights into the perceptions of employees. Continued efforts are essential for an extensive understanding of the applicability of learning organization dimensions to foster work engagement, given that professional employees are considered the strategic and competitive resources for these organizations (Sriranga & Gupta, 2014). The results of the study calls for a deeper understanding and further research would be needed to test this conjecture in the Indian organizational context. The study focused on Indian IT firms, and so more in-depth research studies within varying organizational contexts could reveal far more about the nuances of work engagement.

For future cross-cultural research, this study provides a good stepping stone to verify the study construct within cross-cultural settings. The future studies should examine the influence of crucial concepts at the personal level, such as emotional intelligence (Trivellas, Gerogiannis, & Svarna, 2011; 2013), and mindfulness training interventions (Guillaumie, Boiral, & Champagne, 2017) for enhancing resilience and work engagement. Future studies should investigate how to support organizations in maintaining a regular practice of mindfulness on their own, and sustain its benefits over time (Cohen-Katz et al., 2005).

Work engagement is a vital concept that addresses employees' enthusiasm, energy, and commitment to work; therefore, HRD practitioners need to focus on designing learning organizations to foster employees' resilience, which in turn would enhance work engagement. The results of the current study implies that a supportive learning organization culture becomes foundational for developing resilience among employees that support them to adapt effectivey to workplace challenges and in turn motivate them to exhibit enhanced work engagement. Conclusively, a resilient and engaged workforce is crucial for enhancing organizational competitiveness in an era of intensified global competition.

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LIST OF PUBLICATIONS FROM PRESENT RESEARCH

RESEARCH PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Malik, P. & Garg, P. (2017). Learning organization and work engagement: exploring the nexus in Indian IT sector. Asia-Pacific Journal of Business Administration, 9 (3), 166-189 (Emerald Publications).

2. Malik, P. & Garg, P. (2017). The relationship between learning culture, inquiry and dialogue, knowledge sharing structure and affective commitment to change. Journal of Organizational Change Management, 30 (4), 610-631 (Emerald Publications).

3. Malik, P. & Garg, P. (2017). Learning organization and work engagement: the mediating role of employee resilience. International Journal of Human Resource Management. DOI: 10.1080/09585192.2017.1396549 (Taylor & Francis Publications).

4. Malik, P. & Garg, P. (2018). Psychometric testing of the Resilience at Work scale using Indian sample. Vikalpa, 43 (2) (In Press) (Sage Publications).

PAPERS PRESENTED IN INTERNATIONAL CONFERENCES

1. Malik, P. & Garg, P. (2016, May). Resilient and Engaged workforce: New mantra for success in Learning Organizations. 5th International Conference on Advancement of Development Administration (ICADA), National Institute of Development Administration (NIDA), Bangkok, Thailand.

2. Malik, P. & Garg, P. (2015, December). Learning organization: Predictor of Work engagement in Indian IT organizations. 4th Biennial Conference of Indian Institute of Management, Lucknow.

APPENDIX-A

<table>
<tr><td></td><td>Department of Humanities and Social Sciences
Indian Institute of Technology Roorkee, Roorkee
Roorkee-247667, Uttarakhand, India
Tel: +91-1332-285234
Fax: +91-1332-273560</td></tr>
</table>

Letter from Supervisor,

<u>To whosoever it may concern</u>

This is to certify that Ms. Parul Malik, a registered scholar of Department of Humanities and Social Sciences, IIT Roorkee is conducting a study on 'Impact of learning organizations on employee resilience and work engagement'. Therefore, she needs to interact with middle level managers. This study is part of her Ph.D. thesis and the responses would be kept confidential. Kindly cooperate with her for the smooth conduct of the process. To verify this research project or for any queries, kindly feel free to contact.

Thanking you

Sincerely,

Dr. Pooja Garg
Associate Professor
Department of Humanities and Social Sciences
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INDIA
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APPENDIX-B

<table>
<tr>
<td></td>
<td>Department of Humanities and Social Sciences
Indian Institute of Technology Roorkee, Roorkee
Roorkee-247667, Uttarakhand, India
Tel: +91-1332-285234
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</table>

Cover letter for questionnaire

Dear Respondent,

This survey is strictly for academic purpose and the respondent's identity would be kept confidential. Therefore, I request your sincere participation in the survey that intends to investigate the impact of learning organizations on employee resilience and work engagement. Middle level managers across the country would be participants in the survey that consists of parts A, B, and C.

I acknowledge my sincere thanks to you for your valuable and thoughtful responses.

Sincerely

Parul Malik
Research Scholar
Department of Humanities and Social Sciences
Indian Institute of Technology Roorkee, Roorkee
Roorkee- 247667, Uttarakhand
INDIA

Dear Participants,

You are invited to take part in the survey regarding your views and attitude towards your organisation and your role as an employee. The survey is completely anonymous. You will be presented with a series of statements -mark the response option that best reflects your opinion.

Your responses will add value to our research. No individual data will be released to anyone and aggregate responses shall only be used for research purposes.

Thank you in anticipation, for your helpful response.

INSTRUCTIONS

This questionnaire consists of three parts. You are requested to give your true responses. You are also requested not to leave any question blank.

Personal Information Sheet

Name (Optional):…………………………………….	Present Organization:……………………………………
Age:…………………………………………….	Designation:………………………………………………
Gender:……………………………………………	Tenure with Organization:
Marital Status: Married/Unmarried:………………………	………………………………….
Educational Qualification (Highest Qualification):	
…………………………………………………………….	Total Work Experience:………………………………………..

SECTION-A

Listed below are a series of statements that represent possible feelings about the organization for which you are now working. Please mark the number which best indicates your feelings about the statements given below.

Circle the number in the appropriate column	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
1. In my organization, people help each other learn.	1	2	3	4	5	6	7
2. In my organization, people are given time to support learning.	1	2	3	4	5	6	7

3. In my organization, people are rewarded for learning.	1	2	3	4	5	6	7
4. In my organization, people give open and honest feedback to each other.	1	2	3	4	5	6	7
5. In my organization, whenever people state their view, they also ask what others think.	1	2	3	4	5	6	7
6. In my organization, people spend time building trust with each other.	1	2	3	4	5	6	7
7. In my organization, teams/ groups have the freedom to adapt their goals as needed.	1	2	3	4	5	6	7
8. In my organization, teams/groups revise their thinking as a result of group discussions or information collected.	1	2	3	4	5	6	7
9. In my organization, teams/ groups are confident that the organization will act on their recommendations.	1	2	3	4	5	6	7
10. My organization creates systems to measure gaps between current and expected performance.	1	2	3	4	5	6	7
11. My organization makes its lessons learned available to all employees.	1	2	3	4	5	6	7
12. My organization measures the results of the time and resources spent on training.	1	2	3	4	5	6	7
13. My organization recognizes people for taking initiative.	1	2	3	4	5	6	7
14. My organization gives people control over the resources they need to accomplish their work.	1	2	3	4	5	6	7
15. My organization supports employees who take calculated risks.	1	2	3	4	5	6	7
16. My organization encourages people to think from a global perspective.	1	2	3	4	5	6	7
17. My organization works together with the outside community to meet mutual needs.	1	2	3	4	5	6	7
18. My organization encourages people to get answers from across the organization when solving problems.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
19. In my organization, leaders mentor and coach those they lead.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
20. In my organization, leaders continually look for opportunities to learn.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21. In my organization, leaders ensure that the organization's actions are consistent with its values.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

SECTION-B

Below are the statements that you may agree or disagree with. Circle the number which best indicates your feelings about that statement.

Circle the number in the appropriate column	Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1. I have important core values that I hold fast to in my work-life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I know my personal strengths and make sure I use them regularly in my work.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I am able to change my mood at work when I need to.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. The work that I do helps to fulfil my sense of purpose in life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. My work place is somewhere where I feel that I belong.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. The work that I do fits well with my personal values and beliefs.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. Generally I appreciate what I have in my work environment.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. When things go wrong at work it often affects other areas of my life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. Nothing at work ever really 'fazes me' for long.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. Negative people at work often affect my morale or feelings.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. I make sure I take breaks to maintain my strength and energy when I am working hard.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

12. I have developed some reliable ways to relax when I am under pressure at work.	1	2	3	4	5	6	7
13. I have developed some reliable ways to deal with the stress of challenging events at work.	1	2	3	4	5	6	7
14. I am careful to ensure my work does not dominate my personal life.	1	2	3	4	5	6	7
15. I often ask for feedback so that I can improve my work performance.	1	2	3	4	5	6	7
16. I believe in giving help to my work colleagues, as well as asking for it.	1	2	3	4	5	6	7
17. I have a good level of physical fitness.	1	2	3	4	5	6	7
18. I am careful about eating well and healthily.	1	2	3	4	5	6	7
19. I have friends at work I can rely on to support me when I need it.	1	2	3	4	5	6	7
20. I have a strong and reliable network of supportive colleagues at work.	1	2	3	4	5	6	7

SECTION-C

The following statements concern how you feel about your work. Please indicate the extent of your agreement or disagreement with each statement by **circling** a number from 1 to 7.

Circle the number in the appropriate column	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
1. At my work, I feel bursting with energy.	1	2	3	4	5	6	7
2. At my job, I feel strong and vigorous.	1	2	3	4	5	6	7
3. When I get up in the morning, I feel like going to work.	1	2	3	4	5	6	7
4. I am enthusiastic about my job.	1	2	3	4	5	6	7
5. My job inspires me.	1	2	3	4	5	6	7
6. I am proud of the work I do.	1	2	3	4	5	6	7

7. I feel happy when I am working intensively.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I am immersed in my work.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I get carried away when I am working.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Thank you for your cooperation!!!!!