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Learning Organizations and Employees' Outcomes: A Perspective of Psychosocial Safety Climate

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ABSTRACT

Purpose-Change in organizations becomes an essential element for the attainment of competitive advantage and survival of organizations in a highly competitive environment. This study investigated the direct influence of learning organizations on organizational innovation and affective commitment to change. Moreover, this study also examined the moderating role of psychosocial safety climate between the relationship between learning organizations and organizational innovation and affective commitment to change.

Design/Methodology/Approach-For this study, a self-administered survey technique was adopted to collect data from 303 permanent employees from the manufacturing sector through the time-lag technique. To test the hypotheses, SPSS, and AMOS statistical software were used to analyze the data.

Findings-The findings of this study revealed the direct influence of learning organizations on organizational innovation and affective commitment to change. Moreover, the moderating role of psychosocial safety climate was also found significant. A higher level of psychosocial safety climate enhanced the organizational innovation and affective commitment to change in learning organizations.

Originality/Value-This study contributes to the existing literature on organizational studies that focuses on innovation and employee's affective commitment. By employing social schema theory, this study extends the existing body of knowledge that how learning organizations can increase innovation and affective commitment of their employees and how psychosocial safety climate moderates the relationship between learning organizations, organizational innovation, and affective commitment to change in the manufacturing industry of Pakistan.

Practical Implications-The findings of this research are helpful for the management of manufacturing and service organizations in a way by utilizing the concept of the learning organization. Moreover, management can enhance the level of organizational innovation and affective commitment to change. Further, this study showed that a psychosocial safety climate is an effective tool for improving work quality and employees' affective commitment to change.

Keywords: Learning Organizations, Organizational Innovation, Affective Commitment to Change, Psychosocial Safety Climate, Social Schema Theory

1. INTRODUCTION

Recently due to rapid changes in the form of globalization, and in the environment, the organizations need to re-engineer their policies, procedures, and systems to survive

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(Fazekas, 2021; Ramírez, 2021) (Ramírez, 2021). The current globalized situation and technological advancement enforce organizations for rapid organizational change at the macro-level (Neves, Almeida, & Velez, 2018; Neves, Pires, & Costa, 2020). By developing a culture of innovation and the promotion of innovative ideas, organizations can overcome the challenges of current critical situations. Innovation is considered an essential factor for achieving objectives, attaining competitive advantage, and economic growth of the organizations (Chen, Yin, & Li, 2020; Yu et al., 2019). In line with this, organizational innovation (OI) is gaining popularity in organizational studies (Azeem et al., 2021; Nguyen, Hooi, & Avvari, 2021; Sung & Kim, 2021). OI means adopting new ideas, behaviors, and attitudes during the development of products and services in the workplace (Ni et al., 2021). Generally, using advanced technologies and reshaping organizational structure with the use of modernization techniques leads to OI (Robb et al., 2022). Given this, OI assists organizations to increase productivity, quality, profitability and increases market share (Robb et al., 2022). In the current era, proactive organizations use innovation as a strategic approach to responding to the current highly competitive market circumstances worldwide (Sung & Kim, 2021).

Further, due to critical work environments and complexities, traditional techniques can no longer help organizations, and the key to attaining sustainable competitive advantage lies in the ability to adapt quickly to changing environments (Appel-Meulenbroek et al., 2015; Senge et al., 2008). Given this fact, commitment to change initiatives has become more salient for organizations (Herscovitch & Meyer, 2002; Meyer et al., 2002; Neves, 2011). Change has become the necessary action for every organization to adapt and successfully achieve its organizational goals (Etschmaier, 2010). Previous studies have highlighted that employees' resistance has become the major cause of the failure of change (Amarantou et al., 2018; Endrejat et al., 2017). Earlier literature has shown that employees play a vital role in the process of change because when employees are willing to accept change, they behave cooperatively and put more effort into persistence for the successful implementation of change (Cameron & McNaughtan, 2014; Goksoy, 2017; Van der Voet & Vermeeren, 2017). It has been observed that employees' affective commitment to change (ACTC) is an influential

factor in the successful implementation of change policies and procedures for the attainment of desired organizational performance (Abrell-Vogel & Rowold, 2014; Prawira, 2021). ACTC is the level of commitment, mindset, and attitude of employees about the change in the organization (Armenakis & Bedeian, 1999; Armenakis, Harris, & Feild, 2000). Commitment is an emotional mindset of individuals which helps the management in the successful execution and implementation of change initiatives (Herscovitch & Meyer, 2002).

Psychosocial safety climate (PSC) consists of different guidelines for the organizational policymakers to revise the policies, practices, and procedures for the care of physical and psychological health of the workforce (Dollard & Bakker, 2010; Dormann, Dollard, & Idris, 2019). PSC shows the level of commitment and priority of the management, organizational communication, and participation for the welfare of the employees (Hall, Dollard, & Coward, 2010; Idris et al., 2012). A higher level of PSC at the workplace becomes the cause of higher productivity, innovation, meaningfulness, creativity, and motivational outcomes (Afsharian et al., 2021). PSC of the organization gives a positive gesture to the employees that the organization's management is committed to their physical and psychological health as productivity is vital for them (Afsharian et al., 2021). So, higher level PSC in the organization enables the employees to find more physical and psychological control to fulfill the job demands, and by fulfilling their psychological needs, they find more opportunities to learn (Afsharian et al., 2021; Dollard, Dormann, & Idris, 2019).

By employing the social schema theory, the present study aims to examine the influence of LO on OI and ACTC. Additionally, this study also examines the moderating role of PSC in the relationship between LO and (OI, ACTC). Empirical studies by Rizvi et al. (2021) suggested that there is a need to examine factors such as organizational culture for the development of ACTC. Also, scholars Afsharian et al. (2021), recommended the use of PSC in different organizational contexts. For that reason, researchers of this study employed PSC as a moderator by using the population of the manufacturing (automobile and pharmaceutical) sector, that how the use of PSC in the organizations increases innovation and employee attitudes (McLinton et al., 2019).

Developing economies (i.e., Pakistan) need innovation and higher commitment of their workforce for the execution and implementation of change policies to compete in the market. But in these developing economies organizations face the resistance of their workforce to the successful implementation of change. Varshney (2020) suggests that there is a need for such a mechanism that reduces this resistance and boosts the positive mindset of employees. Correspondingly, for that purpose, this study uses PSC as a moderator which provides a sense of protection to the employees that management of the organization through policies and practices shows caring and conscious behavior about their physical and psychological health. Moreover, Dollar et al. (2019) suggest that if the management provides psychological care through PSC in the organization it may ultimately reduce the level of stress which employees feel during the process of change and increase positive outcomes. For that very reasons the researchers of this study proposed that PSC in the context of developing economy with the utilization of LO concept leads to higher innovation and emotional attachment of employees with their organizations especially during the process of change.

The present study contributes by extending the knowledge in the field of change management by highlighting the importance of LO as an antecedent for the higher OI and ACTC, especially in the manufacturing organizations. Secondly, this study also contributes to the field of positive psychology by placing PSC as a moderator that provides a sense of physical and psychological health security to the individuals by the management which enhance the positive mindset of the employees in the form of higher OI and ACTC. In the context of a developing economy, the findings of this study provide guidelines for the policymakers of both manufacturing and service sectors; as both sectors require innovations and change for the sustainability of their competitive advantage and survival as well. In contrast, the findings of the present study will also be beneficial for the public sector organizations, as the globalized circumstances after the pandemic, enforce the public sector to change the traditional working atmosphere, especially in developing countries. Public sector organizations by adopting the phenomenon of LO not only increase the organizational efficiency but also reduce the economic cost of the state for the services to the public. On the other side, PSC may also

help the policymakers for the better implementation of change policies, practices, and procedures adopted by the public sector institutions for better services to the public state, in the context of a developing economy.

2. LITERATURE REVIEW

2.1. Theoretical Foundation and Hypotheses Development

The theoretical foundation of this study is based on social schema theory (Augoustinos & Innes, 1990; DiMaggio, 1997) which is derived from the word 'schemata,' a memory of humans that they stored in their brains about their social perceptions. In other words, a social schema of humans is concerned with the cognitive memory structure which construct on their experiences and which they can recall at the workplace for reshaping their present and future reactions (Crocker, Fiske, & Taylor, 1984; Strauss & Quinn, 1997; Taylor & Crocker, 1981). Moreover, Paulik (2012) defines social schema as cognitive observations and scripts of humans used to interpret and react to social interaction. DiMaggio (1997) further elaborates that structures of information in the form of 'schemata' in human brains can be altered and replaced with the change in the social and environmental culture of the organizations. So, it is argued that the environment of LO through learning, motivation, empowerment, and knowledge sharing enables the individuals to modify the past information which they save in their schemata. LO provides the opportunity of learning thorough empowerment and problem-solving at the workplace which increases the efficiency and ability of employees; resultantly they show much emotional attachment to their organizations (Kumar et al., 2021). Opportunities by the organizations to the employees from the platform of LO, for the increase their abilities and capabilities through change initiatives; not only change their perceptions about the management but also change their mindset about the change initiatives as well. This modification of information/perception further leads to produce positive outcomes, i.e., OI and ACTC. According to Crocker et al. (1984) change in social events, roles and peoples also helps the individuals for the modification of their experience information. It has been observed that during the process of organizational change, employees feel a threat from the implementation of new police, procedures, and

practices (Sung & Kim, 2021). Employees due to the worst experience information in their schemata show resistance during the change process; that further effect the innovation and emotional attachment of employees with the organization. On the other side, the commitment, care, and priority by the management about the physical and psychological health of the workforce during the process of organizational change also gives a positive gesture to employees (Dollard, Dormann, & Idris, 2019). Priority by the management about the health of employees during the process of organizational change also plays a vital role in the modification of their perceptions which they store in their schemata. Based on this notion, it is argued by the researchers that PSC helps individuals with the modification of their schemata. PSC consists of a list of caring policies, procedures, and practices by the management for the physical and psychological health of the employees (Dollard, Dormann, & Idris, 2019). Therefore, it is proposed by the researchers that commitment and care by the management of the organizations about the physical and psychological health of employees (in the form of PSC) may also become the cause of the enhancement of positive outcomes, i.e., OI and ACTC. During the change process, management's interest in employees' physical and psychological health enables them to show more emotional attachment towards their organizations in the form of ACTC. Based on the notions of social schema theory (Augoustinos & Innes, 1990; DiMaggio, 1997), researchers argue that PSC alters the schemata of employees, by providing the physical and psychological resources to meet the job demands and produce positive outcomes such as higher level of OI. Moreover, this modification of schemata through PSC enables employees for the acceptance of change policies and procedures by showing their higher level of emotional attachment to the organization in the form of affective commitment towards the change.

2.2. Relationship between Learning Organizations and Organizational Innovations

The concept of learning organizations (LO) was founded by Senge (1990), according to him, an organization where people learn independently and continuously; and where management provides an environment of individual and team-level critical thinking is called LO. It has been observed that LO provides an atmosphere of learning to

its members for the promotion of innovation and creativity (Anjaria, 2020). Growing scholars have proposed that with the rapid globalization and higher worldwide competition, the importance of LO increases day by day as these organizations produce positive outcomes such as organizational innovation (OI) (Alegre & Chiva, 2013; Hult, Hurley, & Knight, 2004). OI is defined as the planning, execution, and implementation of new ideas to create new products/services or reshape old products/services into new ones (Damanpour & Schneider, 2006). Moreover, Armbruster et al. (2008) explained that OI is concerned with systematic, technical, and structural change in the process of product/services. Due to the systematic working and continuous change, LO becomes beneficial for innovation (Hatane, 2015). Moreover, these organizations provide a learning environment where the workforce of these organizations through problem-solving opportunities at the workplace learn new things that result in positive outcomes such as OI (Ju et al., 2021). In LO, integration of new and existing knowledge through learning leads to newness/reshaping in products/services (Šebestová & Rylková, 2011). LO empowers its workforce to learn through experiments and by utilizing past experiences which enables them to adopt and accept the new things quickly according to the changing demands of the market (Yang, Watkins, & Marsick, 2004). Moreover, LO by providing an environment of learning improves the knowledge, competencies, and commitment level of employees, and on the other side, these organizations become the cause of an increase in profitability, innovation, growth, and competitiveness (Hor et al., 2010; Vargas-Hernández & Noruzi, 2010). It has been observed that organizations cannot survive and meet the competitive advantage without learning and with the earliest knowledge of their workforce (Alipour & Karimi, 2011; Siddique, 2018). LO develop learning strategies and promote learning through their systematic working environment, leading to positive outcomes, i.e., OI, proactive behaviors and successful implementation of CSR (Adam, Indradewa, & Syah, 2020; Malik, 2022; Osagie et al., 2022). Scholars explained that positive policies and practices and training approaches for learning of employees enables them to transform their values, behaviors and norms which resultantly produces positive things, i.e., sustainability and profitability (Law, Hills, & Hau, 2017), and innovation. Based on the above literature discussion, the researchers hypothesized

that:

H₁: *Learning Organizations are positively associated with Organizational Innovations.*

2.3. Relationship between Learning Organizations and Affective Commitment to Change

Scholars stressed that a successful change process becomes possible through the momentous contributions of employees (Battistelli et al., 2014). It has been observed that higher levels of stress and anxiety that employees feel during the process of change affect the emotional attachment of employees to the organization which becomes the cause of failure of the change process (Hechanova, Caringal-Go, & Magsaysay, 2018). Growing researchers highlighted the importance of affective commitment to change (ACTC) during the process of change (Malik & Garg, 2017). Especially in LO, the emotional attachment of employees to the organizational policies and procedures is much imperative, as these organizations work systematically, and the workforce working in these organizations faces changes in procedures and practices systematically and regularly (Ju et al., 2021; Malik & Garg, 2017). Commitment to change is generally considered the level of employees' attachment to the organization to successfully implement new policies, procedures, systems, programs, and technology (Neubert & Wu, 2009). Moreover, deriving from Allen and Mayer's (1990) phenomenon of organizational commitment, Herscovitch and Meyer (2002) theorize the construct of commitment to change into three dimensions ACTC (affective commitment to change), CCTC (continuance commitment to change), and NCTC (normative commitment to change). ACTC is considered a feeling-based attachment of individuals to support specific change in the workplace (Herscovitch & Meyer, 2002). For the efficacious execution and application of change, ACTC becomes a necessary and imperative tool for organizations, and there is a need to develop it in their workforce (Ritz et al., 2012; Rogiest, Segers, & van Witteloostuijn, 2015). In this study, the researchers focus on the ACTC due to the positive impact of this tool during the process of change, especially in the context of LO (Michaelis, Stegmaier, & Sonntag, 2009). It has been observed that several factors influence the ACTC, i.e., organizational environment, HRM policies, and supervisor/subordinate relationship quality (Bernerth et al., 2007; Fedor, Caldwell, &

Herold, 2006). During the change process, LO play a vital role where the organizational system encourages empowerment, flexibility, and participation of employees in the process of problem solving which enhance their capabilities through learning (Marsick & Watkins, 2003; Watkins & Marsick, 1993), which also become the cause of an increase of their emotional attachment with the organization in the form of higher ACTC. Moreover, the change process requires cooperation of employees with the organization and collaboration between the employees at the workplace, and platform of LO provides a learning environment where individuals cooperate with each other, which may resultantly increase the level of ACTC (Khatibi, Asadi, & Hamidi, 2009; Malik & Garg, 2017). Based on the above literature discussion, the researchers hypothesized that:

H₂: *Learning Organizations positively associated with Affective Commitment to Change.*

2.4. Moderating Role of Psychosocial Safety Climate

It is now mandatory in the current era for every organization to focus on innovation for their survival and to attain a competitive advantage in a highly competitive environment (Adam, Indradewa, & Syah, 2020; Martinez et al., 2017). OI is a powerful tool for organizational effectiveness and for achieving organizational goals by improving organizational and individual competencies, capabilities, and resources (Sung & Kim, 2021). Scholars expressed those various circumstances i.e., the financial instability of firms, globalized political instability, and worldwide pandemic situations become the causes of organizational change (Graetz et al., 2006; Graetz & Smith, 2010), and these circumstances enforce organizations for innovations. However, several reasons such as organizational environment, employees' perception of job insecurity, and the cost of the change process create hurdles for the organizations for the successful implementation of change policies and strategies (Choi & Ruona, 2011) which are necessary for the newness and modification of products/services in the form of organizational innovation. At the stage of organizational change, a favorable climate provides physical and psychological support to the individuals to accept change policies, whereas a hostile organizational climate makes hurdles to the execution and implementation of change. Individuals working in learning organizations expect that regular, systematic change will become beneficial for their professional and financial growth, and in case of fulfillment of their

expectations, they show their affective commitment to change (Malik & Garg, 2017; Ning & Jing, 2012). Scholars explained that LO possesses the ability to the continuous learning process as a culture which increases the abilities of individuals through the development of growth (Hong, 2020). During the change process, LO through strategies makes the work meant for them through learning (Pedler & Hsu, 2019). Moreover, employees during the process of change feel insecure about the physical and psychological health injury and due to this, they show less interest in changing policies and practices.

PSC is concerned about employees' perceptions of the organizational policies, processes, and practices organizations implement to care for physical and psychological health (Dollard, 2012; Dollard & Bakker, 2010; Dollard, Dormann, & Idris, 2019). In contrast, PSC also works as a physical and psychological resource tool for the employees through which they enable themselves to fulfill the job demands without any emotional damage, i.e., stress and burnout (Mansour & Tremblay, 2019). It has been observed that organizational climate influence the behaviors and attitudes of the individuals, which enables them to accept the change (Douglas et al., 2017), which regularly and systematically occurred in LO. PSC is a facet-specific organizational climate for individuals' physical and psychological health and works as a vital source that produces a conducive work atmosphere (Idris & Abdullah, 2021). PSC enables the individuals to be physically and psychologically strong, through which they accept the change policies and procedures (Schultz, Sjøvold, & Andre, 2017); which may cause resultant in different positive outcomes, i.e., OI, enhancement of knowledge, and affective commitment to change. Moreover, PSC works as an essential indicator for better working conditions, social relations, and better physical and psychological health of individuals (Afsharian et al., 2021). If the organization's management provides a higher level of PSC, ultimately it will change the mindset of their subordinates' that the management of the organization is caring about the mental and physical health, which increases not only the productivity but also the commitment level of employees (Afsharian et al., 2021; Afsharian et al., 2019). Several studies use PSC as a moderator in different organizational contexts with different predictor and criterion variables (Garrrick et al., 2014; Idris & Abdullah, 2021; Loh et al.,

2018), which explains that PSC provides a physical and psychological source to the employees to meet the organizational demands (Afsharian et al., 2019; Dormann, Dollard, & Idris, 2019). Based on the above discussion of literature, the researchers argue that during change, especially in learning organizations, a higher level of PSC may result in positive outcomes, i.e., OI and ACTC. Thus, the researchers hypothesize that:

H_{3a}: *Psychosocial Safety Climate moderates the positive relationship between Learning Organizations and Organizational Innovation; in such a sense that a higher level of Psychosocial Safety Climate strengthens this relationship.*

H_{3b}: *Psychosocial Safety Climate moderate the positive relationship between Learning Organizations and Affective Commitment to Change; in such a sense that a higher level of Psychosocial Safety Climate strengthens this relationship.*

2.5. Pakistani studies on Learning Organizations, Psychosocial Safety Climate, Organizational Innovation, and Affective Commitment to Change

A review of the literature showed that great interest has been shown by Pakistani scholars in the recent years and few studies have been conducted in Pakistan with different organizational contexts (i.e., schools, cellular companies, and nursing) by using the construct of learning organizations (Haider et al., 2020; Noreen & Shahbaz, 2021; Zamin Abbas et al., 2011), affective commitment to change (Dakhan et al., 2020; Rizvi, Farooq, & Ahmed, 2021) psychosocial safety climate (Tariq, Bukhari, & Adil, 2021) and organizational innovation (Ashraf & Khan, 2013; Fayyaz, Chaudhry, & Fiaz, 2020; Khan et al., 2014). Unfortunately, these studies were conducted with a sample of schools, cellular companies, and nursing, where educational institutions consider learning organizations. Authors of these studies suggested that there is a need for a highly well-trained, efficient, and motivated workforce to meet the globalized challenges. Research is scarce in the Pakistani context concerning manufacturing and service sector organization; according to the Economic Survey of Pakistan 2021-22, both sectors are the major contributors to the economy of Pakistan. Worldwide pandemic circumstances brutally suffer the economies of developing countries, i.e., Pakistan and to meet the national and international competition, Pakistani industry needs a higher level of innovation and change in their working systems and for the success of change plans higher affective

commitment of the workforce also be needed. In the present study, therefore, researchers collect data from the manufacturing sector (pharmaceutical and automobile) of Pakistan.

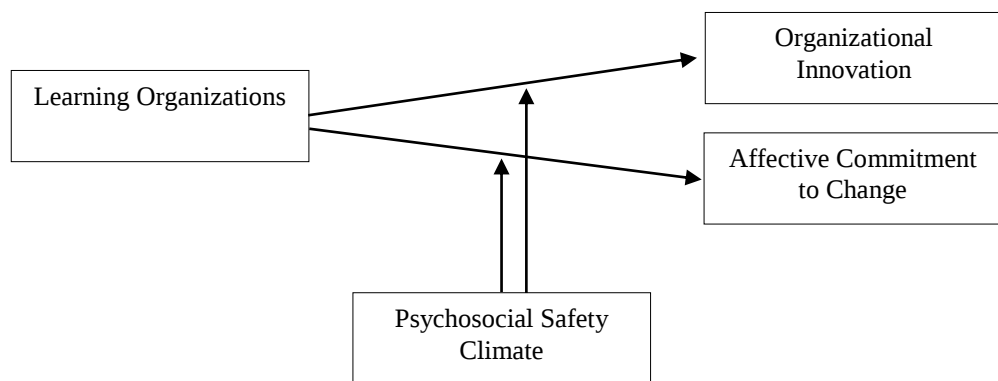


Figure 1. Conceptual Model

3. RESEARCH METHODOLOGY

3.1. Sample and Procedure

Manufacturing sector organizations are the major contributor to the Pakistani economy, as this sector contributes 12.79% to the GDP of Pakistan (Pakistan Economic Survey 2020-21). So, there was a need to research this sector to boost the economic conditions of Pakistan; therefore, researchers choose the sampling frame from the manufacturing sector (pharmaceutical and automobile). A deductive research approach was used in the present study the confirmation of the proposed hypotheses. Primary data was used in this study, which was collected from both types of genders (i.e., male and female) working in manufacturing organizations (pharmaceutical and automobile), by adopting the temporal separation method (with the period of one month between the first and second phase of data collection to minimize the chances of CMB “common method bias” (Podsakoff, MacKenzie, & Podsakoff, 2012). Respondents of the present study voluntarily participated in the collection process and provided their opinions through a survey; a briefing was provided to the participants about the study's objectives before starting data collection. Participants of the present study were contacted through the author's contacts and the HR department of the respective industries. In the first-time span of the study, 650 questionnaires were distributed to the participants through their

respective HR departments for the collection of opinions of their employees about LO and ACTC, 446 responses were received; in the second span, opinions of employees were collected about PSC and OI and at the end of second-span 306 questionnaires were received which were found fit for further analysis. Through special identical coding, the questionnaires were paired at the end of the second span of the data collection; and the response rate was 47.07%.

3.2.Measures

All measurement scales of the present study were adopted from reputed previous published studies. All variables ‘learning organizations’, ‘psychosocial safety climate,’ ‘organizational innovation,’ and ‘affective commitment to change’ of the present study were measured on a five-point Likert scale which fluctuated from ‘strongly disagree-1’ and ‘strongly agree-5’. Self-report measurement techniques were used to obtain the data from the participants for both predictor and criterion variables.

3.2.1. Learning Organizations

A 13-item scale by Marsick & Watkins (2003) was adopted to measure the learning organizations at the individual level. Participants of the present study were asked to give their opinions about the policies and procedures they observe in their organizations about learning from the last year. A sample item of the measurement scale is “In my organization, people openly discuss mistakes to learn from them.” Earlier studies also widely used this scale which authenticates the validity of this scale (Jain & Moreno, 2015; Osagie et al., 2022; Park et al., 2014), and the Cronbach alpha of earlier studies was between .80 to .90.

3.2.2. Psychosocial Safety Climate

A 12-item scale by Hall et al. (2010) was adopted to measure the psychosocial safety climate of the organization. Participants of the present study were asked to give their opinion about the policies and procedures for their psychosocial safety, which they observed last year. A sample item of the measurement scale is “In my organization, people openly discuss mistakes to learn from them.” Earlier studies also widely used this scale which authenticates the validity of this scale, (Mansour & Tremblay, 2019; Tariq, Bukhari, & Adil, 2021; Teoh & Kee, 2019) and the Cronbach alpha of earlier studies was

between .80 to .90.

3.2.3. Organizational Innovation

A 14-item scale by Ismail et al. (2002) was adopted to measure organizational innovation at the individual level. Participants of the present study were asked to give their opinion about innovative behaviors in their organizations, keeping in mind the activities from the last year. A sample item of the measurement scale is “In my organization, people openly discuss mistakes to learn from them.” Earlier studies also widely used this scale which authenticates the validity of this scale (Fan, Mahmood, & Uddin, 2019; Gezginci & Öztaş, 2020; Khan, Rehman, & Fatima, 2009), and the Cronbach alpha of earlier studies was between .80 to .90.

3.2.4. Affective Commitment to Change

A 06-item scale of Herscovitch & Meyer (2002) was adopted to measure the affective commitment level of individuals towards change. Participants of the present study were asked to give their opinion about the questions keeping in mind last year's work in their organizations. A sample item of the measurement scale is “In my organization, people openly discuss mistakes to learn from them.” Earlier studies also widely used this scale which authenticates the validity of this scale, (Dakhan et al., 2020; Radian & Mangundjaya, 2019; Rizvi, Farooq, & Ahmed, 2021) and the Cronbach alpha of earlier studies was between .80 to .90.

4. RESULTS AND ANALYSIS

4.1. Demographics

Demographic details of the participants who voluntarily participated in this study were as: 59.8% (183) participants were male and 40.2% (123) were female. Age-wise 14.1% (43) participants fall between the age category of 18-25 years, 62.4% (191) fell between the range of 26-35 years, 20.6% (63) fell between the age range of 36-45 years, 2.6 (8) were falling between the range of 46-55 years and the single participant was from the range of more-than 56 years age range. Moreover, 1.6% (5) participants hold the “Ph.D.” degree, 26.1% (80) hold the “M.Phil/MS” degree, 38.6% (118) hold the “Masters/BS” degree, 33% (101) hold the “Graduation” degree and two participants were

from the “Intermediate” educational category. 58.5% (179) of participants were married and 41.5% (127) were unmarried. Experience-wise 2.3% (7) participants fall in the experience category of “more than 20-years”, 3.6% (11) fall in the “16-20 years” experience range, 20.9% (64) fall in the experience range of “11-15 years”, 39.2% (120) participants fall under “6-10” years’ experience range and 34% (104) were from the experience category of “1-5 years”.

4.2. Preliminary Analysis

Before start of analysis further analysis, the researchers test the good fitness of the model by using AMOS software. Statistical indicators for the measurement of the model shows the significant fit of the model in Table 1, where; $\chi^2/df = 1.99$; GFI = .93; AGFI = .82; CFI = .96; TLI = .94; NFI = .95; RMR = .054 and RMSEA = .057 as suggested by (Hair et al., 2010; Hu & Bentler, 1999). Moreover, we also analyze the data through SEM and majority of the fitness indicators shows the significance for the model fitness, where; $\chi^2/df = 2.05$; GFI = .98; AGFI = .86; CFI = .94; TLI = .93; NFI = .94; RMR = .114 and RMSEA = .059 as recommended by (Hair et al., 2010; Hu & Bentler, 1999).

Table 1. Measurement Model			
Acceptable Range	Fitness Criteria	Measurement Model	Structural Model
1-3	Chisq/df	1.99	2.05
>.90	GFI	0.93	0.98
>.80	AGFI	0.82	0.86
>.95	CFI	0.96	0.94
>.90	TLI	0.94	0.93
>.90	NFI	0.95	0.94
<.09	RMR	.054	.114
<.08	RMSEA	.057	.059

4.3. Descriptive Statistics and Correlations

Additionally, researchers check the normality of data through Skewness and kurtosis; as shown in Table 2, normality values for all study variables (LO, PSC, OI, and ACTC) are between plus-minus 3, a benchmark suggested by (Brown, 2015).

Table 2. Normality Statistics					
Variables	α	Skewness		Kurtosis	
		Statistic	SE	Statistic	SE
LO	.900	-.560	.140	-.020	.278
PSC	.926	-.803	.140	.424	.278
OI	.873	-1.316	.140	3.056	.278
ACTC	.787	-.117	.140	.356	.278
Note: LO; learning organizations, PSC; psychosocial safety climate, OI; organizational innovations, ACTC; affective commitment to change					

Table 3 shows the descriptive statistics and correlational values, where LO significantly and positively correlated with PSC ($r=.357^{**}$, $p<.01$), with OI ($r=.171^{**}$, $p<.01$), and with ACTC ($r=.332^{**}$, $p<.01$). PSC positively and significantly correlated with OI ($r=.528^{**}$, $p<.01$) and with ACTC ($r=.632^{**}$, $p<.01$), and OI positively and significantly correlated with ACTC ($r=.500^{**}$, $p<.01$).

Table 3. Descriptive Statistics and Correlations												
		Mean	SD	1	2	3	4	5	6	7	8	9
1	Gen	1.4	.491		-.075	.454**	.130*	-.107	-.110	-.044	.148**	-.004
2	Age	2.13	.682			.063	-.421**	.641**	-.200**	-.094	-.114*	-.075
3	Edu	2.95	.826				.050	.038	-.138*	-.021	.071	.024
4	MS	1.42	.494					-.486**	.154**	.079	.075	.098
5	Exp	2.01	.949						-.151**	-.082	-.148**	-.029
6	LO	3.57	.775							.357**	.171**	.332**
7	PSC	3.45	.786								.528**	.632**
8	OI	3.22	.484									.500**
9	ACTC	3.75	.582									
Note: LO; learning organizations, PSC; psychosocial safety climate, OI; organizational innovation, ACTC; affective commitment to change, ** $p<.01$												

4.4. Hypothesis Testing

Direct Effects

Table 4 shows the values of hierarchical regression, through which we analyze the data to test the direct effects of a predictor variable on criterion variables. Model-1 and Model-3 show the effect of demographic variables (gender, age, education, marital status, and experience) on criterion variables (OI and ACTC). In contrast, Model-2 shows the significant influence of predictor variable (LO) on criterion variable (OI) where $b = .111^{***}$, $SE = .036$, $p<.001$, $t = 3.060$; moreover, predictor variable (LO) positively and significantly influencing the criterion variable (ACTC) where $b = .253^{***}$, $SE = .042$, $p<.001$, $t = 5.977$. The R square value for OI was .070 which indicates that LO explains 7% of the variation in the OI and the R square value for ACTC was .117 which indicates that

LO explains 11.7% variation in the ACTC. Thus, these results provide support for H₁ and H₂ of this study.

Models	Organizational Innovation						Affective Commitment to Change					
	M1			M2			M3			M4		
	b	SE	t-value	b	SE	t-value	b	SE	t-value	b	SE	t-value
Intercept	3.204***	.185	17.278	2.741***	.237	11.547	3.620***	.226	16.054	2.564***	.277	9.251
Gen	.123*	.064	1.938	.140*	.063	2.221	-.026	.077	-.340	.011	.073	.151
Age	-.026	.053	-.481	-.007	.053	-.125	-.067	.065	-1.042	-.024	.062	-.392
Edu	.013	.038	.337	.022	.037	.593	.023	.046	.494	.044	.043	1.017
MS	-.015	.065	-.230	-.033	.064	-.509	.115	.079	1.455	.074	.075	.984
Exp	-.061	.040	-1.537	-.060	.039	-1.533	.040	.048	.827	.042	.046	.922
LO				.111**	.036	3.060				.253***	.042	5.977
R ²	.041			.070			.014			.119		
Adjusted R ²	.025			.051			.002			.102		
F	2.532*			3.730***			.862			6.756***		

Note: LO; learning organizations, PSC; psychosocial safety climate, OI; organizational innovation, ACTC; affective commitment to change, *** $p < .001$; ** $p < 0.01$; * $p < 0.05$, Unstandardized regression coefficients were reported

4.5. Interactive Effects

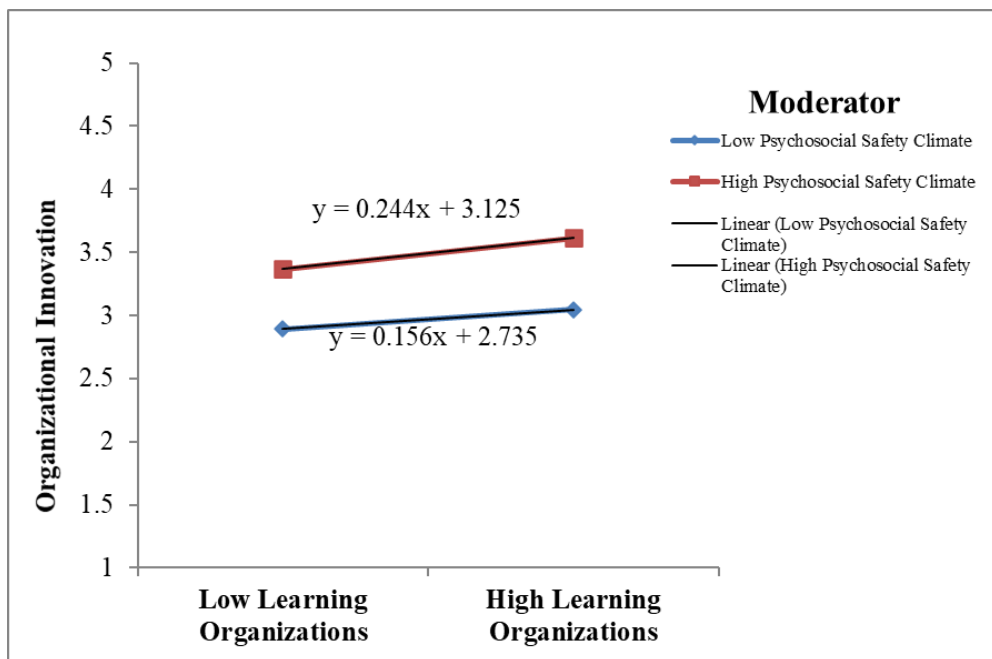
Table 5 illustrates the interactive effects done using AMOS v.23 with the bootstrapping sample of 5000 as suggested by (Hayes, 2018). Moderation results revealed that PSC moderates the relationship between LO and OI; where LO positively influence OI ($b = .100^{**}$, $p < .01$), PSC positively influences OI ($b = .261^{***}$, $p < .001$), and the interaction term (LO x PSC) also positively influence the OI ($b = .022^{***}$, $p < .001$). These results prove that a higher level of PSC strengthens the relationship between LO and OI, so support the H3a of this study. Moreover, moderation results also revealed that PSC moderates the relationship between LO and ACTC; where LO positive influence the ACTC ($b = .409^{***}$, $p < .001$), in contrast, PSC positively but insignificantly influences the ACTC ($b = .024$, $p > .05$) but interaction term (LO x PSC) positively and significantly influenced the ACTC ($b = .128^{***}$, $p < .001$). According to Baron and Kenny (1986), for moderation analysis significant influence of the moderator on the criterion variable is not necessary, if the interaction term statistically significantly influences the criterion variable, there is moderation. These results prove that a higher level of PSC strengthens the relationship between LO and ACTC, so support the H3b of this study.

Table 5. Interactive Effects

Models	Estimates	SE	C.R	p-value
LO → OI	.100**	.034	2.959	.003
LO → ACTC	.409***	.055	7.479	.000
PSC → OI	.261***	.045	5.831	.000
PSC → ACTC	.024	.037	.641	.522
Interaction (LO x PSC) → OI	.022***	.005	4.106	.000
Interaction (LO x PSC) → ACTC	.128***	.009	14.028	.000

Note: LO; learning organizations, PSC; psychosocial safety climate, OI; organizational innovation, ACTC; affective commitment to change, *** $p < .001$; ** $p < 0.01$; * $p < 0.05$

For further authentication of the moderation effect, researchers draw a moderation slope by using $\pm 1SD$ for the moderation of PSC between the relationships of LO and OI. Figure 2 shows that a higher LO environment with a higher level of PSC leads to higher OI. Moreover, a higher level of LO but a lower level of PSC leads to lower OI. The moderation graph further enlightens that an increase/decrease in PSC in LO affects the OI level.

**Figure 02. Moderation Slope (DV-I)**

Moreover, researchers also draw a moderation slope by using $\pm 1SD$ for the moderation of PSC between the relationships of LO and ACTC. Figure 3 shows that a higher LO environment with a higher level of PSC increases the ACTC level of employees. Additionally, the moderation graph explained that a higher level of LO and a lower level of PSC decrease the positive mindset of employees in the form of lower ACTC. So, moderation slope further clarifies that increase/decrease in PSC in the LO also affects the psychological state of the employees in the form of ACTC.

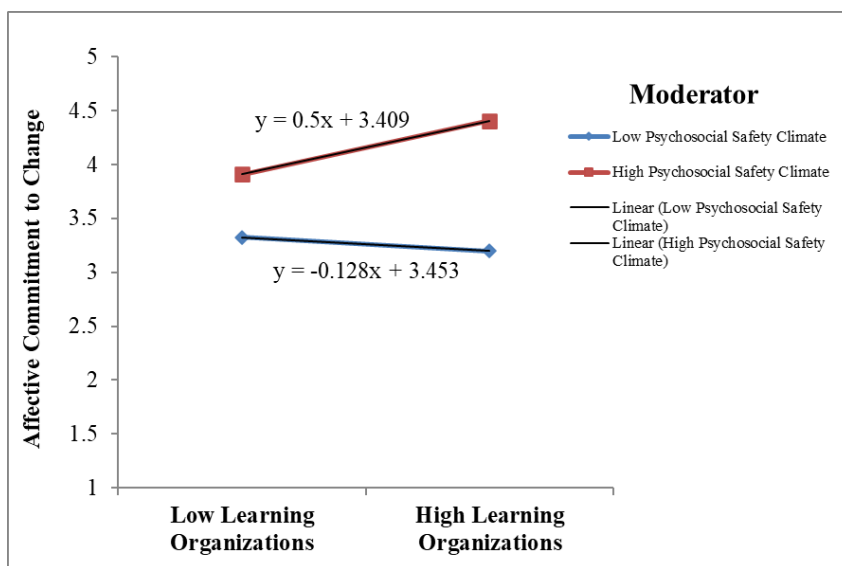


Figure 03. Moderation Slope (DV-II)

A robustness test was conducted using AMOS, for the further calculation and interpretation of moderation of PSC. Figure 4 shows the direct influence of LO on OI ($b=.10^{***}$, $p<.001$) and ACTC ($b=.41^{***}$, $p<.001$), where PSC is positively influencing the OI ($.26^{***}$, $p<.001$) and ACTC ($b=.02^*$, $p<.05$), whereas moderating effecting of PSC is also positive and significant on OI ($b=.01^*$, $p<.05$) and ACTC ($b=.13^{***}$, $p<.001$). As per Figure 4, a higher level of PSC strengthens the relationship between LO and OI and between LO and ACTC. In other words, when the level of PSC was higher in learning organizations it boosts the OI and ACTC.

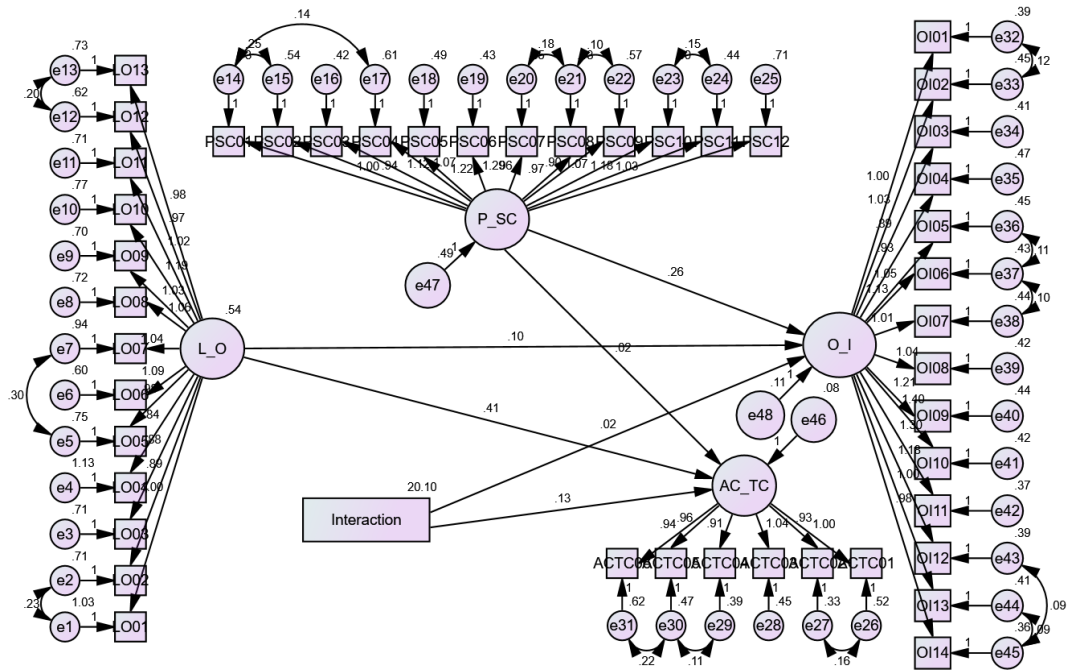


Figure 04. Interaction Structural Model

5. DISCUSSION

Following were the main objective of the present study (a) to investigate the direct influence of LO on OI and ACTC and (b) to examine the interaction link of PSC between LO and OI and between LO and ACTC. The first hypothesis of the present study hypothesizes that there is a positive and direct relationship between LO and OI; the study's findings revealed that there is a direct positive link between LO and OI; earlier researches also provide support to the findings of this study (Adam, Indradewa, & Syah, 2020; Allouzi, Suifan, & Alnuaimi, 2018). Further, based on the social schema theory (Augoustinos & Innes, 1990; DiMaggio, 1997), LO through timely information, empowerment, and sharing of knowledge alter the perceptions of employees about the change which enables them to accept new policies and procedures which ultimately boost the level of OI. A culture of generation of new and novel ideas is the major component of LO (Adam, Indradewa, & Syah, 2020), which encourages employees through the sharing

of knowledge to share ideas with management and supervisors to promote an environment of innovation. The second hypothesis of this study proposes that there is a direct positive link between LO and ACTC, the findings of the present study evidenced the acceptance of this hypothesis, and earlier studies also provide support for this hypothesis by explaining that the learning environment of the organizations influences the level of affective commitment to change (Malik & Garg, 2017). Moreover, social schema theory (Augoustinos & Innes, 1990; DiMaggio, 1997) enlightens that humans store knowledge in their brains in the form of schemata which they got from their experiences in the society and this knowledge human utilizes for the interpretation and solution of problematic situations of the future (Crick & Dodge, 1994). These perceptions of humans can be altered for the attainment of positive outcomes through events (the daily routine workings at the workplace). LO by providing the climate of learning, sharing of knowledge, and motivation for learning alter the negative perceptions of the employees which enables to show higher level of their commitment for the acceptance of change environment. The third hypothesis of the present study hypothesized that PSC moderates the relationship between LO and OI and between LO and ACTC. The present study's findings provide support for the acceptance of these hypotheses. Findings of the earlier studies are also evidence for accepting these hypotheses (Garrrick et al., 2014; Idris, Dollard, & Tuckey, 2015; Loh et al., 2018). Results of these hypotheses further explain that physical and psychological care by the organization's management provides resources to the employees to fulfill the job demands (Dormann, Dollard, & Idris, 2019). Additionally, the theoretical lens of social schema theory (Augoustinos & Innes, 1990; DiMaggio, 1997) also explains this relationship that different schemata of humans drive them for the positive and negative reactions at the workplace; and the culture of the organization modifies their schemata which resulted into positive outcomes. According to DiMaggio (1997), attention and motivation by the management of the organization play a vital for the modification of human schemata. The caring behavior of management in the form of PSC (policies and practices) alters the perception of employees about the organization and management. They feel that their organizations are caring about their physical and psychological health; this positive perception alters their negative schemata

which ultimately resulted in a higher level of OI and ACTC.

5.1. Theoretical Implications

The foundation of this study relies on social schema theory which provides a thorough understanding of the concept of LO and PSC. Learning organizations by providing the environment of empowerment, systematic thinking, and leadership helps and encourages the individuals to modify their schemata, which resultantly physically and psychologically agree to them for the acceptance of change, which gives rise to OI and ACTC. Scholars have stated that the concept of LO is still alive (Pedler & Burgoyne, 2017; Pedler & Hsu, 2019) and is beneficial for organizations to produce positive outcomes. Additionally, the researchers also investigate the role of PSC, which plays a vital role in the modification of schemata of individuals. The findings of the present study extend the theory by adding knowledge that a higher level of PSC in the organizations alters the negative perceptions of the employees towards change. As social schemata theory (Augoustinos & Innes, 1990; DiMaggio, 1997) explains that attention and motivation can change the behaviors of individuals which they stored in their memory from their experience of society. Adoption and implementation of PSC by the management of the organizations modify the negative perceptions of employees about change policies and practices and the management. That ultimately enables them the acceptance of LO's systematic change policies; as a higher level of PSC shows the care of management about the physical and psychological health of employees (Dormann, Dollard, & Idris, 2019). Scholars have reported that PSC provides physical and psychological sources to individuals to meet the demands of their jobs (Dormann, Dollard, & Idris, 2019; Loh et al., 2018). This study also contributes to psychology and organizational behavior literature by explaining the concept of psychosocial safety climate being a specific mechanism that works as an essential physical and psychological source that enables individuals to produce positive outcomes. Finally, the findings of the present study provide support to the theorized relationships between LO, PSC, OI and ACTC, especially in manufacturing sector (pharmaceutical and automobile) of the developing and non-western economy (Pakistan).

5.2. Practical Implications

The present study's findings provide important practical implications for every type of organization (private and public), that how the management of the organizations produce positive outcomes by modifying the negative experiences of their employees, which they stored in their schemata. Being a developing economy (Pakistan), the findings of this study is much beneficial especially for the public sector organizations, as in the current advanced globalized circumstances public sector institutions in Pakistan face the challenges of the adoption of advanced technological equipment for the better services to the public of the state. But they are facing the challenges that how they can reduce the resistance level of their employees to the acceptance of new policies and strategies; by adopting the environment and culture of LO and PSC; higher management and policymakers of public sector organizations can overcome these challenges; which ultimately foster their performance. It has been observed that in developing economies such as Pakistan employees of public sector organizations feel insecure about the damage to their physical and psychological health during the implementation of new policies and practices. Care by the policymakers through caring policies in the form of PSC also helps the management for the successful implementation of new policies, practices, and procedures, especially in the public sector institutions, and reduces the level of resistance and cost of implementation as well. By implementing the phenomenon of LO, management can encourage individuals to enhance positive outcomes (Rupčić, 2020). Management of the organizations by providing the environment of teamwork, sharing of knowledge, and systematic thinking by enhancing the workforce's skills and competencies (Senge et al., 2008). Moreover, higher management also provides a culture of positive leadership and organizational policies, encouraging employees to accept change with motivation and encouragement, which leads to OI and ACTC. It is essential for the management of the organizations if they want to get benefits of the PSC phenomenon; they must design the organizational policies so that these policies provide trust to the employees that their management is committed to their physical and psychological health.

5.3. Strength, Limitations, and Future Directions

The present study has some strengths, limitations, and future directions, encouraging future researchers. The strength of the present study is that researchers collect data in two different temporal separation time frames to overcome the common method bias of the respondents. Regarding limitations, first, the data for the present study were collected from a single source (self-reported from employees); it would be better to collect data from multiple sources, which gives a better understanding of the phenomenon of ACTC. In the present study, the researchers investigate the moderating role of PSC; it would be interesting to examine the role of other moderating variables 'adaptive leadership and flexible work arrangements (Bontrager, Clinton, & Tyner, 2021). Furthermore, most of the studies on PSC to date focused on the positive features of PSC, and scholars overlooked the dark side of PSC. Scholars are encouraged to investigate the dark side of PSC under different contextual circumstances, it would be possible that a higher level of PSC may reduce the well-being and psychological state of employees. Finally, this study was limited to the pharmaceutical and automobile industry of Pakistan; therefore, the findings of this study may have differed for service sector industries. Thus, scholars are encouraged to replicate this model with other service or manufacturing sector industries with different regional contexts. Moreover, it would be better to explain the phenomenon of learning organizations towards positive outcomes; through the mechanism of intervening variables, i.e., readiness to change and knowledge management practices (Repovš, Drnovšek, & Kaše, 2019; Thien, 2019).

6. CONCLUSION

In the current era, all type of organizations faces the threats that how they can survive and attain a competitive advantage in a highly competitive market, which is influenced by rapid globalization and technological advancement. The findings of the present study revealed that organizations can overcome these challenges by adopting the phenomenon of LO which helps the organizations for the highest OI. In contrast, organizations face resistance during the process of change which can be reduced by providing the PSC in the organization which ultimately increases the positive mindset of the employees for the

acceptance of the change in the form of higher affective commitment towards change. The present study also provides valuable suggestions and guidelines to the policymakers and practitioners of both public and private sectors; by providing a sense of care to the employees in the form of PSC organizations can smoothly execute and implement the change strategies, policies, and practices. As PSC provides the psychological and physical resources to the employees which enables them the fulfillment of their job demands.

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