



Individual characteristics and innovation performance in SMEs: Moderating role of psychological capital

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Abstract

Aim: This research aimed to identify the individual characteristics and innovation performance in Pakistani Small and Medium-sized Enterprises (SMEs), as well as the moderating role of psychological capital. Specifically, the present research used organizational behavior theory and social exchange theory.

Methodology: To analyze the data, 310 SME managers in Pakistan filled out an online survey. Structural Equation Modeling (SEM) results indicate that emotional investment favors adaptability.

Findings: Additionally, the results demonstrated the moderating role of psychological capital in the relationship between change readiness and affective commitment, creativity, and trust in Pakistani SMEs.

Implications/Novel Contribution: Another significant contribution is the study's use of organizational behavior theory and social exchange theory. Managers can improve staff retention by instituting policies that build a sense of belonging, respect for management, and pride in one's work. This research adds to what was previously known about the innovation simulation platform in Pakistan's SMEs.

Keywords: Innovative Performance, Social Exchange Theory, Organizational Behavior Theory, Psychological Capital.

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INTRODUCTION

Both innovation leaders and academics have paid close attention to their organization's innovation ability (Khattak, 2022). Because of the convergence of new technologies and shifting environmental conditions, businesses must embrace novel approaches and procedures (Nousopoulou, Kamariotou, & Kitsios, 2022). Companies in today's electronics and experience and understanding industries need technological innovation to evolve into modern enterprises (Grözinger, Wolff, Ruf, & Moog, 2022; Haroon & Shariff, 2017). Additionally, the diversity that has resulted from the innovation of e-commerce and technological advancement makes it hard for businesses to thrive. Employee count typically determines SME status and annual revenue (Games, Hidayat, Fhardilha, Fernando, & Sari, 2022). According to the SMEs Development Agency of Pakistan, an SME is defined as a business with less than 500 employees and a net worth of less than \$1 million. Companies with ten or fewer employees are small, while those with 51 to 99 employees are medium-sized. SMEs are more vulnerable to the effects of technological innovation because of their limited resources (Alqudah, Carballo-Penela, & Ruza-Sanmartín, 2022; Nousopoulou et al., 2022).

Understanding one's participation in the organization captures the cognitive aspect of one's identity (Alqudah et al., 2022). Still, it is crucial to consider emotional components (Games et al., 2022). We consider the organization's efficiency in this regard (Bouraoui, Bensemmane, Ohana, & Russo, 2018; Iglesias, Markovic, & Rialp, 2019). "identification with, participation in, and emotional loyalty to the organization" are how Odoardi, Battistelli, Montani, and Peiró (2019) defines affective commitment. To differentiate between the rational, emotional, and critical facets of one's identity, we have elected to keep the term "affective commitment" for close ties to the organization (Games et al., 2022).

Individual employees have varying degrees of creativity, which can be harnessed in various ways. One's ability to think creatively is thus an asset, or a personal creative capacity (Akhter, Karim, & Islam, 2022). For

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this study, an individual's creative effort in the workplace is defined as developing something new, useful, or new to approach a problem. [Asbari, Prasetya, Santoso, and Purwanto \(2021\)](#) defined creativity as producing new ideas or solving previously unsolvable problems. The terms "innovation" and "creativity" are sometimes used interchangeably. To create is to come up with something new and potentially useful. Although employees may share their ideas informally, innovations are only truly appreciated once they are implemented at the organizational or system levels ([Hilmiyanti & Kusumastuti, 2021](#); [Sutanto, 2017](#)).

The term "trust" defines a person's openness to risk because they believe in their own and others' reliability ([Oguegbe & Edosomwan, 2021](#)). Evaluations of a company's competence, ethics, and best contributions to this preparedness ([Oguegbe & Edosomwan, 2021](#); [Sankowska, 2016](#)). According to Mayer and colleagues, trust is a powerful determinant rather than a replacement for trust, as some authors suggest. When discussing trust between individuals or groups, the term "organizational trust" will be used, where a company stands for the analogous ([Games et al., 2022](#)).

Readiness for change "reflects the amount of the cognitive and emotional predisposition of employees to accept and adopt a specific strategy to modify the status quo and move forward purposefully" ([Alqudah et al., 2022](#); [Chrisanty, Gunawan, Wijayanti, & Soetjipto, 2021](#)). Adaptability is often viewed as pivotal in change initiatives, as people are fundamental to the transformation process ([Beasley, Grace, & Horstmanshof, 2021](#); [Mohajeri, Narimani, Shahbazzadeh, Bahrampanah, & Qaderi, 2021](#)). Academics note that many important questions concerning the factors that contribute to and influence readiness for change still need to be answered.

A significant contribution Individuals with high psychological capital believe in their abilities. They are willing to put in the time and effort required to achieve their goals in life. Different from attribute personality types, which are more stable and challenging to alter, this one can be developed and changed. Psychological capital influences many facets of a situation, including outlook, thought, ambition and emotion ([T. Ali, Mad Lazim, & Iteng, 2021](#); [Ramírez-Solis, Llonch-Andreu, & Malpica-Romero, 2022](#)). Human capital management relies on and is supported by physical and social infrastructure but goes beyond these resources to give businesses an edge in the marketplace.

This research aimed to identify the individual characteristics and innovation performance in Pakistani SMEs, as well as the moderating role of psychological capital. Both the organizational behavior theory and the social exchange theory were utilized in this investigation. According to a definition provided by [Núñez, Marquez, Zayas, and López \(2020\)](#), organizational behavior theory is "a field of academic study that seeks to figure out how and why people act in certain ways within various types of professional groups." "a concept based on the notion that a relationship between two people is created through a cost-benefit analysis" is how social exchange theory is defined ([de Souza Meira & Hancer, 2021](#)). Long-term, it's based on the idea that the other side will return an exchanging colleague's voluntarily practical actions in a malleable fashion, lending credence to the idea that people strive for positive outcomes concerning their resources ([de Souza Meira & Hancer, 2021](#)). This study's practical evaluation rests on these concepts, which form the proposed conceptual foundation. Specifically, we aim to determine and accomplish the following research objectives.

1. Affective commitment positively influences readiness for change.
2. Creativity positively influences readiness for change.
3. Trust positively influence readiness for change.
4. Readiness for change mediates the relationship between affective commitment, creativity, trust, and Innovation performance.
5. Psychological capital moderates the relationship between readiness for change and Innovation performance.

LITERATURE REVIEW

psychological capital's moderating role in the relationship between individual characteristics and SMEs' innovation performance in Pakistan is investigated here. Organizational behavior and interpersonal interaction theories were used in the present investigation. Organizational behavior theory, as defined by [Núñez et al. \(2020\)](#), is "a field of academic inquiry that seeks to understand how and why members of various professional organizations behave in certain ways." Social exchange theory assumes that all interpersonal interactions can be reduced to

a series of cost-benefit calculations between the parties involved. It's predicated on the idea that if one party exchange voluntarily helps out the other, the other party will do the same out of gratitude, proving that people want to maximize the good they get from their resources. These theories form the basis of the proposed conceptual framework being tested empirically here (de Souza Meira & Hancer, 2021).

Affective Commitment and Readiness for Change

Recognition of one's participation in the organization captures the assumption of social cognition of one's identity. Still, it is crucial to consider emotional aspects as well (Atrizka, Lubis, Simanjuntak, & Pratama, 2020). Here, we consider the organization's efficacy, as evidenced by the citations below: (Ahmed, Akhtar, Ahmed, & Aziz, 2017; Games et al., 2022; Shahzad, Arenius, Muller, Rasheed, & Bajwa, 2019; Zia, 2020). By "identification with, involvement in, and emotional attachment to the organization," Odoardi et al. (2019) defines affective commitment. To distinguish between the rational, emotional, and evaluative facets of one's identity (Hilmiyanti & Kusumastuti, 2021; Khattak, 2022), researchers would rather keep the term "affective commitment" for emotional connection to the organization. Joy (i.e., happiness stemming from the organization as a cultural construct) and love (i.e., feelings of appeal or aversion toward the organization as a social grouping) are two basic pleasant feeling groupings that researchers built on to recognize basic-level interpersonal designs (Odoardi et al., 2019; Purwanto, Asbari, Hartuti, Setiana, & Fahmi, 2021; Ramírez-Solis et al., 2022; Shahzad et al., 2019). Consequently, according to evaluation theories of emotions (Nousopoulou et al., 2022), happiness and gratitude arise from different self-evaluations and elicit different behavioral and reactive responses.

The term "affective commitment" describes a person's emotional investment in the success of an organization beyond its monetary value. This investment includes a deep identification with the company's mission and values and a sense of pride in one's role (Khaola & Rambe, 2020). This level of commitment is shown by employees who fully embrace the company's mission, values, and vision (Atrizka et al., 2020; Bouraoui et al., 2018; Games et al., 2022; Vargas-Hernandez & Gonzalez, 2020). A company's success is directly attributable to the efforts of its employees who have a personal stake in the company. They consistently show a positive outlook on their work, a strong work ethic, and a knack for getting things done, all of which contribute to their high retention rates (Khaskheli et al., 2020). Employees who believe their companies care about them are more committed to them, in accordance with the social exchange theory. The workforce is responsible for putting the change into effect. Examining their readiness to implement necessary organizational changes is important (Khaskheli et al., 2020). According to Alqudah et al. (2022), the varying degrees of change readiness in individual organizations can be traced back to employees' varying levels of familiarity with the concept of value change, and its potential effects on the workplace (Iglesias et al., 2019). They need to consider factors like accessibility, work requirements, and environmental variables when assessing the ability to implement change. High organizational readiness is characterized by members willing to begin change initiatives with increased effort and team cohesion (Atrizka et al., 2020).

Creativity and Readiness for Change

Creativity is the process of putting new and original ideas into practice and finding solutions to problems by drawing on one's experience, talents, and qualities. Creativity is also valued in the workplace, where employees need to be resourceful to spot opportunities and seize them (Asbari et al., 2021; Johar, Lestari, & Awada, 2020). Creativity is the capacity to come up with new ideas and ways of thinking by altering, fusing, or repurposing the ideas of others, creating new forms, and honing one's imaginative talents and thinking (Akhter et al., 2022). Corporate entrepreneurship is spotting and capitalizing on market openings to create and develop novel concepts that can be used to launch new businesses. Therefore, originality is viewed as the primary motivator behind entrepreneurial intent (Jam, Mehmood, & Ahmad, 2013; Sutanto, 2017) and displays a high degree of entrepreneurial attractiveness (Hilmiyanti & Kusumastuti, 2021). Other academics have argued that creative people are more likely to succeed as business owners and to maintain a healthy sense of self-worth throughout their careers (Asbari et al., 2021; Jam et al., 2014). Creativity is a fluid and individual quality that can take many forms.

Therefore, something associated with creativity can be seen as a resource or the ability to create. Thus, and for this study, individual creativity is defined as an employee's effort to create novel items, helpful ideas, or

problem-solving approaches (Beasley et al., 2021). Creativity is how one thinks of new ideas or approaches to old problems. Sometimes, people use the terms "innovation" and "creativity" interchangeably. The study's authors also distinguish between creativity and actual inventive behavior. Those who agree with this distinction point out that it is "essential to separate creativity from innovation" Mohajeri et al. (2021). Creating something new, which may have practical applications, is called creation. Although employees may share their ideas, true innovation is only rewarded once implemented at the organizational or unit level (Jam, 2019; Hilmiyanti & Kusumastuti, 2021). As was stated earlier, creativity is defined as the generation and development of novel and valuable concepts. Therefore, a person's cognitive processes, reasoning, and potential subsequent actions are all relevant to creativity. A standard definition of creativity is the propensity for the invention that requires one to "put in" some effort. According to Mohajeri et al. (2021), creativity is the "ultimate source" of inventive behavior, so it's clear that it's important. An organization's readiness for change may exist on any scale: individual, departmental, divisional, or corporate. Organizational readiness is defined as "the shared commitment of members to shift course" (Akhter et al., 2022). Members of the group should also agree on the importance of change. The state of readiness of other players in the industry influences organizational readiness to adapt to change. Individuals are the most important factor when assessing the problems for readiness to change (Chrisanty et al., 2021).

Trust and Readiness for Change

Innovations involving perplexing problems are better suited to a trusting attitude. Increases in operational efficiency depend more on established norms and procedures than on the freedom implied by the trust (Oguegbe & Edosomwan, 2021). Members of an organization need trust in their leadership to focus and follow procedures effectively (Oguegbe & Edosomwan, 2021). Because of this assurance, they are more likely to demonstrate loyalty to the company. This feature suggests that trust affects learning in various ways, with its most significant influence occurring in the presence of potential variability. The alternative argument suggests that different types of businesses and industries should place varying amounts of value on trust within their organizations. Those who focus solely on innovation as a competitive strategy are less likely to succeed than their counterparts who use new technologies to stay ahead of the pack (Sankowska, 2016). As a result, in a business with less experience and understanding, trust within the organization is less crucial to the company's success in the marketplace. Employees' trust in their superiors and the company is the foundation of what's known as "organizational trust" (Guzzo, Wang, Madera, & Abbott, 2021; Oguegbe & Edosomwan, 2021; Waheed, Kaur, Ul-Ain, & Qazi, 2013).

A business trust is "the willingness of an employee to be susceptible to the actions of the organization based on the belief and expectation that the organization will carry out specific steps important to him/her, regardless of his/her ability to assert control or monitor the company," as defined by Dahmardeh and Nastiezaie (2019). Since trust is studied in organizations in various ways, this definition attempts to bring together all relevant aspects. According to Guzzo et al. (2021), trust is "the expectation of favorable results that a person can obtain based on the anticipated action of some other person," who is, by definition, unpredictable. This demonstrates how participation, transparency, anticipation, and anticipation are significant factors in building trust in an organization. Research by Dahmardeh and Nastiezaie (2019) found that workers' beliefs influence readiness for change in their ability to implement new proposals (change efficiency), the appropriateness of the proposed changes for the organization (change correctness), the leaders' support for the proposed changes (direct supervision), and the benefits to the organization as a whole (Chrisanty et al., 2021; Mohajeri et al., 2021; Qiao & Li, 2021).

Mediating Role of Readiness for Change

Preparing employees for change in the workplace requires identifying approaches that could be used to enhance preparation for change. The business can do two things: assess the readiness of its employees for change and deal with the obstacles that prevent change from occurring (Beasley et al., 2021). A person's openness to change may be affected by their level of affective commitment, as suggested by the research cited in Alqudah et al. (2022); Chrisanty et al. (2021). Organizational change readiness can exist on various scales, from the individual to the team to the department to the enterprise. As defined by Alolabi, Ayupp, and Dwaikat (2021), organizational readiness for change is the collective will of its members to bring about transformation. Members of the group should also agree on the importance of change. How ready an organization is to adapt depends on the readiness

of numerous players in the industry. Ultimately, people matter most when gauging a problem's amenability to change. Innovation is another factor in determining whether or not an organization can successfully implement novel changes to keep up with the ever-evolving nature of its organizational activities. Nothing happens in a vacuum; everything is interconnected and constantly shifting in response to various forces, and tensions (T. Ali et al., 2021; Bouraoui et al., 2018).

Change management is a relatively new field, so Haroon and Shariff (2017) looked into its origins, innovation, and how questioning its assumed foundation can spark new ideas. Changing things requires making use of the resources already available. Each individual in the workforce must do their part to ensure the change is realized (Khaola & Rambe, 2020). It is crucial to determine if they are ready to implement successful organizational changes. Individual change readiness varies greatly depending on how well individuals grasp the implications of value shifts and how they might be implemented in the workplace (Nguyen, Pham, Le, & Bui, 2020). They need to consider factors like accessibility, work requirements, and environmental variables when assessing the ability to implement change. A highly prepared organization is one whose members are prepared to begin change initiatives with increased effort and team cohesion. Change's success depends on several factors, including security, dependability, productivity, and anticipated benefits (Núñez et al., 2020; Wang, Bu, Li, Song, & Li, 2021). Sometimes people within an organization will have the wrong impression of how adaptable their company is to new circumstances. Employees are more likely to accept and embrace organizational change if they participate in organizational activities.

Moderating Role of Psychological Capital

Although it has been proposed that psychological capital directly influences people's aptitude for innovation, it is also possible that psychological capital directly influences people's capacity for creativity (Asbari et al., 2021). Studies have shown that individual factors, such as inspiration and background knowledge, play a role in creative output (Alolabi et al., 2021; Beasley et al., 2021; Goswami & Agrawal, 2022). According to this study, these are all represented by psychological capital. In particular, it is hoped that the positive effects and increased creativity borne of increased psychological capital will benefit society at large. It is essential to recall that the preceding discussion referred to individual creativity as the "basis of innovation" and "main source" (Bouraoui et al., 2018; Dahmardeh & Nastiezaie, 2019). It can be said that original behavior is impossible to achieve without original thought. As W. Ali et al. (2021) argues, "creativity is the fundamental building element of discovery and innovation," we can safely assume this is the case. Employees' psychological capital has been linked to innovative performance on the job, particularly in terms of individuals' propensity for inventiveness. For instance, the research of Ramírez-Solis et al. (2022) found that the amount of psychological capital an employee possessed correlated positively with their inventiveness. Across industries and professions, we found that managers who valued employees' psychological capital also valued their innovation performance (Purwanto et al., 2021). Most studies have concluded that to "effectively support inventive work-related thoughts," one needs a "storehouse of psychological resources," which is what psychological capital is meant to provide. Employees with high levels of psychological capital can start taking on and putting in the necessary effort to succeed at challenging tasks, make optimistic sources about accomplishing now and in the upcoming years, keep going toward goals, and, when necessary, reallocate paths to goals (hope) to succeed, and keep going even when faced with challenges and difficulties (W. Ali et al., 2021; Asbari et al., 2021; Goswami & Agrawal, 2022). It extends beyond social and psychological capital to provide businesses with a competitive advantage by managing qualified personnel effectively (Wang et al., 2021). The extent to which an individual makes an impact in the workplace is, according to Bouraoui et al. (2018), heavily dependent on their level of psychological capital. Work output, employees' emotional investment in the company, and work-life harmony are enhanced.

Conceptual Model

METHODOLOGY

Organizational behavior and social exchange theories underpin the study's conceptual framework and hypotheses. The current research examines the moderating role of psychological capital in the relationship between individual characteristics and innovation performance in Pakistani SMEs. The survey link, a short explanation of

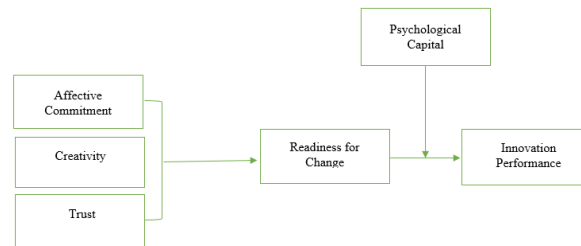


Figure 1. Conceptual Framework

the study's purpose, and a request for participation were all sent to these groups via email. SMEs significantly contribute to Pakistan's economic expansion. About 99% of all business establishments in Pakistan are SMEs. The majority of their business is in industrial (80%), social and personal activities (22%), wholesalers, retailing, restaurants, and accommodation (53%) (W. Ali et al., 2021). Non-probability sampling based on a convenient sample method was applied in this study, which was suitable given the scope and nature of the research. Data will be collected from 310 Managers of Pakistan SMEs.

Participants

Managers at Pakistani SMEs are included in the research. First, the relevant department supplied the names and email addresses of 500 managers at Pakistani SMEs. Then, a cover letter and survey questionnaire were sent to each contact to gain their voluntary participation in the study. Since the survey was conducted in English, respondents needed to attest to their command of the language in the cover letter. There was also a commitment to maintaining the confidentiality of individual responses and releasing only summary statistics from the study. As many as 180 managers from Pakistani SMEs initially declined participation due to language barriers and time constraints. The authors report that 420 participants who understood the survey's language and were eager to participate in the poll voluntarily provided their consent. We have 420 managers at Pakistani SMEs in two weeks to fill out our survey. After two weeks, the authors started sending gentle reminders to those who had yet to respond. The entire process of gathering data began on September 1, 2022, and continued until October 1, 2022. The authors stopped collecting data after receiving 350 completed surveys. The study collected 310 complete and usable survey responses from 500 managers of Pakistani SMEs for a final response rate of 62%. The study's sample was selected using a quick and effective method. Specifically, it refers to a "method of collecting samples by capturing samples conveniently available near a location or Internet service" (Hair Jr et al., 2021). This work analyzes data using the PLS-SEM Smart PLS 3 method, and hypotheses are tested.

Measurement Scale

A 26-item questionnaire was devised to analyze the individual characteristics and innovation performance in Pakistani SMEs and the moderating role of psychological capital, as well as organizational behavior theory and Social exchange theory.

1. A 4-item scale of Affective commitment was adopted by Alqudah et al. (2022). Items include "This organization has a great deal of personal meaning for me". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

2. A 5-item scale of creativity was adopted by Sutanto (2017). Items include "Create new elements for development". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

3. A 3-item scale of trust was adopted by Sankowska (2016). Items include "The organization operates on the assumption of trust even in new situations". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

4. A 5-item scale of readiness for change was adopted by Alqudah et al. (2022). Items include "Change encourages me to make more efforts in my work". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

5. A 4-item scale of psychological capital was adopted by [Asbari et al. \(2021\)](#). Items include "I feel confident that I can set goals for myself in my work area s". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

6. A 5-item scale of innovation performance was adopted by ([Torres de Oliveira, Gentile-Lüdecke, & Figueira, 2022](#)). Items include "I feel confident that I can set goals for myself in my work area s". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

ANALYSIS

A preliminary analysis of the collected data from the $N = 310$ participants is presented in Table 1, along with their demographics and descriptive statistics. The structural and metric models were evaluated with SmartPLS3. Managers' ages, lengths of service, and most current levels of education were found to be significant predictors of innovation performance in SMEs in Pakistan. The current study also investigated the moderating role of psychological capital and incorporated insights from organizational behavior theory and social exchange theory.

Table 1: Demographic profile

Demography	Description	No. of Responses	%
Age	25-35	80	27
	35-45	120	39
	Above 45	110	35
Work Period	2-3 year	70	21
	3-4 year	130	41
	More than 5 years	120	38
Last Qualification	BS/BBA	90	29
	MS/M.Phil	160	51
	Ph.D.	60	20

In the table above, the age of 25-35 managers was 27%, age 35-45 managers was 39% while above 45 was 35%. The work period in an organization of managers was 2-3 years 21%. 3-4 years was 41%, while more than 5 years was 38%. BS/BBA qualified 29% of respondents, while 51% were MS/M. Phil qualified, and lastly, Ph.D. qualified was 20% managers from Pakistani SMEs.

Measurement Model

A preliminary PLS-SEM analysis assessed the factor loadings, validity, and reliability of the 310 manager survey data. Table 2 displays the item-level factor loadings, validity, and reliability findings from the PLS measurement model. Cronbach's alpha, a measure of an item's internal consistency, is typically required to be 0.70 or higher ([Fornell & Larcker, 1981](#)). Cronbach's Alpha and CR values for the variables under investigation were higher than 0.70. Because the Average Variance Extracted (AVE) values for discriminant validity were higher than 0.50, convergence validity and high reliability were demonstrated ([Fornell & Larcker, 1981](#)). The CR values were over the cutoff range of 0.70, ranging from 0.802 to 0.904.

Table 2: Composite reliability, Cronbach's Alpha and AVE values

Constructs/Items	CA	Rho-A	CR	AVE
Affective Commitment	0.805	0.809	0.873	0.632
Creativity	0.760	0.785	0.839	0.516
Innovation Performance	0.868	0.886	0.904	0.654
Psychological capital	0.772	0.770	0.802	0.506
Readiness for Change	0.733	0.761	0.759	0.508
Trust	0.707	0.725	0.836	0.630

"Note: CR = Composite Reliability; AVE = Average Variance Extracted; CA = Cronbach's Alpha"

Furthermore, any research methodology must be proven to have discriminant validity. [Fornell and Larcker](#)

(1981) defined discriminant validity as "the extent to which a given latent variable differs from other latent variables". Once we had established that all of the criteria for the reliability and validity of the variables had been satisfied, we conducted more research for structural route analysis. The discriminant validity is further supported by the HTMT values being below 1, which are also below 1.

Table 3: Discriminant validity

	AC	C	IP	PC	RFC	T
Affective Commitment	0.795					
Creativity	0.339	0.718				
Innovation Performance	0.583	0.217	0.809			
Psychological capital	0.399	0.204	0.557	0.711		
Readiness for Change	0.459	0.333	0.669	0.435	0.739	
Trust	0.385	0.218	0.506	0.388	0.503	0.794

R^2 has a value that ranges from 0 to 1. Furthermore, R^2 values of 0.13 should be regarded as weak, 0.33 as moderate, and 0.67 as strong, according to Bello et al. (2018). The coefficient of determination for the endogenous constructs is shown in the table. Innovation Performance R square value of 0.692 indicates strong and Readiness for Change R square value of 0.359 indicates moderate relation, according to the table below.

Table 4: Assessment of R square

	R^2
Innovation Performance	0.652
Readiness for Change	0.359

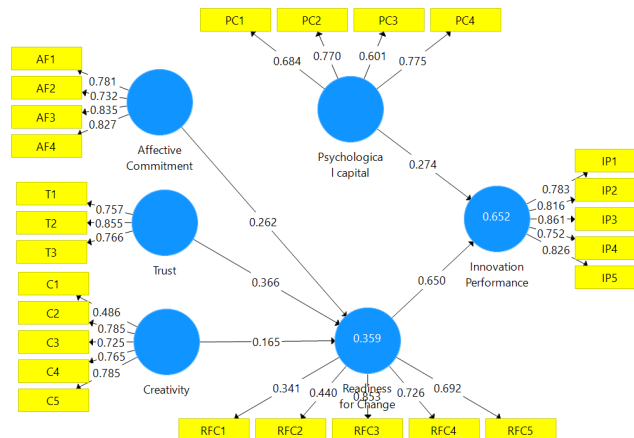


Figure 2. Assessment of algorithm

Structural Equation Model

Statistical route coefficients in the structural model that reflect the hypothesized relationships were calculated using the PLS-SEM bootstrapping technique. The PLS-SEM analysis of the effect of psychological capital as a moderator on the relationships between a firm’s readiness for change, its employees’ creativity, and their trust in leadership is presented, along with the pathways that led to those findings. Affective commitment predicts openness to change, as evidenced by the findings ($\beta = 0.262, t = 4.600, p = 0.000$). Hence H1 is accepted. The results show that the relationship between creativity and readiness for change is significant ($\beta = 0.165, t = 2.675, p = 0.008$). Hence H2 is accepted. The results show that the relationship between trust and readiness for change is significant ($\beta = 0.366, t = 6.350, p = 0.000$). Hence H3 is accepted.

Table 5: Direct relation

	Original Sample	t Statistics	p Values	Decision
Affective Commitment -> Readiness for Change	0.262	4.600	0.000	Supported
Creativity -> Readiness for Change	0.165	2.675	0.008	Supported
Trust -> Readiness for Change	0.366	6.350	0.000	Supported

Mediating Effect

The relationship between affective commitment and innovation performance remained significant after adding readiness for change as a mediating variable ($\beta = 0.170, t = 4.364, p < 0.000$) respectively. The relationship between creativity and innovation performance remained significant after adding readiness for change as a mediating variable ($\beta = 0.107, t = 2.748, p < 0.006$) respectively. The relationship between trust and innovation performance remained significant after adding readiness for change ($\beta = 0.238, t = 6.004, p < 0.000$) respectively. Mediation is refers as "the parties meet with a mutually selected impartial and neutral person who assists them in the negotiation of their differences" (Hair et al., 2021).

Table 6: Mediating effect

	Original Sample (O)	t Statistics	p Values
Affective Commitment -> Readiness for Change -> Innovation Performance	0.170	4.364	0.000
Creativity -> Readiness for Change -> Innovation Performance	0.107	2.748	0.006
Trust -> Readiness for Change -> Innovation Performance	0.238	6.004	0.000

Moderating Effect

The relationship between readiness for change and innovation performance and psychological capital as a moderating variable ($\beta = 0.274, t = 6.235, p < 0.000$) respectively. According to Hair et al. (2021), "a test of moderation was conducted to determine which moderator variable influences the direction or intensity of the association between the independent and dependent variables".

Table 7: Moderating effect

	Original Sample (O)	t Statistics	p Values
Readiness for Change* Psychological Capital -> Innovation Performance	0.274	6.235	0.000

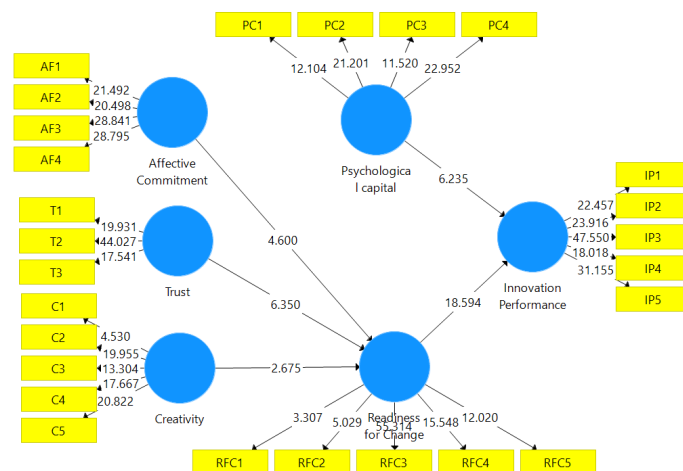


Figure 3. Assessment of bootstrapping

DISCUSSION

Moderating role of psychological capital, organizational behavior theory, and the social exchange theory in analyzing the relationship between individual characteristics and innovation performance in Pakistani SMEs. The evidence agreed with each of the hypotheses.

The results show that the relationship between affective commitment and readiness for change is significant ($\beta = 0.262, t = 4.600, p = 0.000$). Affective commitment acted as a potent catalyst for people's propensity to do good deeds on behalf of other organization members. Affective commitment positively impacted the readiness for change (Atrizka et al., 2020; Games et al., 2022; Khaola & Rambe, 2020). The result is in line with studies suggesting that emotionally devoted employees are prepared to go the extra mile for their company, including embracing organizational change when necessary. The results show that the relationship between creativity and readiness for change is significant ($\beta = 0.165, t = 2.675, p = 0.008$). The results show that the relationship between trust and readiness for change is significant ($\beta = 0.366, t = 6.350, p = 0.000$). The overall effect of organizational trust on a business's position in the marketplace should be explained to managers. Furthermore, it has been discovered that improving business performance significantly impacts a company's market dominance more than increasing organizational trust. This shows that organizational trust retains a strategic advantage by providing customer benefits rather than readiness for change.

The relationship between affective commitment and innovation performance remained significant after adding readiness for change as a mediating variable ($\beta = 0.170, t = 4.364, p < 0.000$), respectively. The relationship between creativity and innovation performance remained significant after adding readiness for change as a mediating variable ($\beta = 0.107, t = 2.748, p < 0.006$), respectively. The relationship between trust and innovation performance remained significant after adding readiness for change ($\beta = 0.238, t = 6.004, p < 0.000$), respectively. The goal of this research is to understand better and use the principles of innovation in industrial organizations. This research promotes innovation from the viewpoint of individual workers, in contrast to most other research on the extent of innovation performance. Even though the element of individual inventive behavior is intriguing, this research expanded on prior research by expanding our understanding of the factors that strongly impact, precisely, the process skills related to employees' innovation performance (Nguyen et al., 2020).

The finding may be described by the idea that preparedness for change entails having some skills necessary for putting change into practice (Beasley et al., 2021), as well as creating motivation to be given a chance to engage in the process of change. This is an intriguing discovery. The relationship between readiness for change and innovation performance and psychological capital as a moderating variable ($\beta = 0.274, t = 6.235, p < 0.000$) respectively. This research also provides new information into how employee qualities, both independently and as part of, can affect SMEs' employees' innovation performance by including psychological capital as a moderator.

Practical Implications

There is a lot that can be gleaned by policymakers, administrators, and decision-makers from this study. The potential for unanticipated consequences can be reduced by exploring alternative determinants. For managers to achieve their goals, they must first increase workers' affective commitment and openness to change. They will gain critical insight into the methods they should focus on as a result of this. Verbal teamwork, specific job descriptions, and rigorous training procedures can also increase workers' adaptability. A second reason is that original thought is the mother of invention.

Nonetheless, additional factors, such as the transferred technology, needed to be considered for an innovation performance to be successful. Third, managers should give their employees a sense of direction and a common goal to work toward. Finally, managers need to boost workers' psychological capital by making structural adjustments to the company that encourages and rewards creative output.

Theoretical Implications

The findings of this study have far-reaching implications for managers of SMEs in Pakistan and for the government, which may opt to broaden the current study's focus on affective commitment, creativity, and trust concerning the effect of readiness for change and the moderating role of psychological capital among SMEs in Pakistan. Another significant contribution is the study's use of organizational behavior theory and social exchange

theory. To keep their staff members, managers should institute policies that build employees' sense of belonging, trust in one another, and appreciation for the organization. In addition, the present research adds to the existing body of information on the innovation simulation platform for Pakistan's SMEs. The innovation performance framework illustrates how the fundamental parts of a company work together. Businesses need to ensure their managers and employees are mentally healthy and have a positive outlook. The critical change action plan that is always included as an employee view of overall availability requires an evaluation of the readiness of each administrative region.

Limitations and Future Research

On the other hand, the study had some significant caveats and suggestions for the future. A study of SMEs in Pakistan focuses on the role of psychological capital in influencing and moderating the effect of readiness for change brought about by factors such as affective commitment, creativity, and trust. One limitation was that it was a quantitative, closed-ended questionnaire. Because the survey used a cross-sectional design, it wasn't easy to conclude cause and effect. Problems can be solved by conducting qualitative research and engaging in dialogue with students to gain insight into how concepts are being applied in practice and what effective methods have been set up to store these suggestions for use in the future. Future studies in this area would benefit from longitudinal or field testing to establish causal relationships between the study constructs better. The data also has some gaps, such as that it was collected from only managers at Pakistani SMEs. In the future, researchers can use additional countries and increase the population size for more accurate results. The researchers can use any sampling method that is convenient for them, which is a significant limitation. Purposive sampling is a method that other researchers could use in the future to further our understanding.

CONCLUSION

Several inferences can be made based on this study's findings. This research fills in important gaps in our understanding of a topic that has yet to get much attention. This investigation is the first to link affective commitment, creativity, trust, and innovation performance with the mediating role of psychological capital. There is a solid and positive relationship between emotional investment levels and innovation efforts results. Through this study, SMEs must build credibility while inspiring innovation and emotional investment. This suggests that SMEs should recommit their efforts to areas that improve their innovation performance. The notion is that more research is needed to account for the factors that affect trust. Research priorities for the future include exploring the causes and effects of organizational trust in specific fields of study. All managers must participate and show their dedication to organizational changes to succeed. SMEs are said to be "change ready" when they are in this mental state. Additionally, various factors are viewed as significant concerns for transformation readiness.

REFERENCES

- Ahmed, I., Akhtar, M., Ahmed, I., & Aziz, S. (2017). Practices of Islamic banking in the light of Islamic ethics: A critical review. *International Journal of Economics, Management and Accounting*, 25(3), 465-490.
- Akhter, A., Karim, M. M., & Islam, K. (2022). The impact of creativity and innovativeness on digital entrepreneurship: Empirical evidence from Bangladesh. *The Journal of Asian Finance, Economics and Business*, 9(3), 77-82. doi:<https://doi.org/10.13106/jafeb.2022.vol9.no3.0077>
- Ali, T., Mad Lazim, H. b., & Iteng, R. (2021). The effect of product innovation and technology orientation on the firm performance: Evidence from the manufacturing small and medium enterprises of Pakistan. *South Asian Journal of Social Sciences and Humanities*, 2(2), 156-171.
- Ali, W., Wen, J., Hussain, H., Khan, N. A., Younas, M. W., & Jamil, I. (2021). Does green intellectual capital matter for green innovation adoption? Evidence from the manufacturing SMEs of Pakistan. *Journal of Intellectual Capital*.
- Alolabi, Y. A., Ayupp, K., & Dwaikat, M. A. (2021). Issues and implications of readiness to change. *Administrative Sciences*, 11(4), 1-14. doi:<https://doi.org/10.3390/admsci11040140>
- Alqudah, I. H., Carballo-Penela, A., & Ruzo-Sanmartín, E. (2022). High-performance human resource management practices and readiness for change: An integrative model including affective commitment, employees' performance, and the moderating role of hierarchy culture. *European Research on Management and Business Economics*, 28(1), 1-12. doi:<https://doi.org/10.1016/j.iedeen.2021.100177>

- Asbari, M., Prasetya, A. B., Santoso, P. B., & Purwanto, A. (2021). From creativity to innovation: The role of female employees' psychological capital. *International Journal of Social and Management Studies*, 2(2), 66–77. doi:<https://doi.org/10.5555/ijosmas.v2i2.18>
- Atrizka, D., Lubis, H., Simanjuntak, C. W., & Pratama, I. (2020). Ensuring better affective commitment and organizational citizenship behavior through talent management and psychological contract fulfillment: An empirical study of Indonesia pharmaceutical sector. *Systematic Reviews in Pharmacy*, 11(1), 545-553.
- Beasley, L., Grace, S., & Horstmanshof, L. (2021). Assessing individual readiness for change in healthcare: A review of measurement scales. *Journal of Health Organization and Management*, 35(8), 1062-1079. doi:<https://doi.org/10.1108/JHOM-10-2020-0414>
- Bello, M. B., Yusoff, K., Ideris, A., Hair-Bejo, M., Peeters, B. P., & Omar, A. R. (2018). Diagnostic and vaccination approaches for Newcastle disease virus in poultry: The current and emerging perspectives. *BioMed Research International*, 2018, 1-18. doi:<https://doi.org/10.1155/2018/7278459>
- Bouraoui, K., Bensemmane, S., Ohana, M., & Russo, M. (2018). Corporate social responsibility and employees' affective commitment: A multiple mediation model. *Management Decision*, 57(1), 152-167. doi:<https://doi.org/10.1108/MD-10-2017-1015>
- Chrisanty, F. N., Gunawan, M. S., Wijayanti, R. W., & Soetjipto, B. W. (2021). The role of transformational entrepreneurship, readiness to change and counterproductive work behavior in enhancing employee performance. *Organizacija*, 54(1), 63-81.
- Dahmardeh, M., & Nastiezaie, N. (2019). The impact of organizational trust on organizational commitment through the mediating variable of organizational participation. *Management Researches*, 12(44), 155–180. doi:<https://doi.org/10.22111/JMR.2019.23818.3788>
- de Souza Meira, J. V., & Hancer, M. (2021). Using the social exchange theory to explore the employee-organization relationship in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 33(2), 670-692. doi:<https://doi.org/10.1108/IJCHM-06-2020-0538>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. doi:<https://doi.org/10.1177/002224378101800104>
- Games, D., Hidayat, T., Fhardilha, J., Fernando, Y., & Sari, D. K. (2022). The impact of trust, knowledge sharing, and affective commitment on SME innovation performance. *Journal of Governance and Integrity*, 5(2), 267–274. doi:<https://doi.org/10.15282/jgi.5.2.2022.7184>
- Goswami, A. K., & Agrawal, R. K. (2022). It's a knowledge centric world! Does ethical leadership promote knowledge sharing and knowledge creation? Psychological capital as mediator and shared goals as moderator. *Journal of Knowledge Management (Just Accepted)*. doi:<https://doi.org/10.1108/JKM-09-2021-0669>
- Grözinger, A.-C., Wolff, S., Ruf, P. J., & Moog, P. (2022). The power of shared positivity: Organizational psychological capital and firm performance during exogenous crises. *Small Business Economics*, 58(2), 689–716. doi:<https://doi.org/10.1007/s11187-021-00506-4>
- Guzzo, R. F., Wang, X., Madera, J. M., & Abbott, J. (2021). Organizational trust in times of COVID-19: Hospitality employees' affective responses to managers' communication. *International Journal of Hospitality Management*, 93, 1-11. doi:<https://doi.org/10.1016/j.ijhm.2020.102778>
- Hair, J. F., Astrachan, C. B., Moisesescu, O. I., Radomir, L., Sarstedt, M., Vaithilingam, S., & Ringle, C. M. (2021). Executing and interpreting applications of PLS-SEM: Updates for family business researchers. *Journal of Family Business Strategy*, 12(3), 100392. doi:<https://doi.org/10.1016/j.jfbs.2020.100392>
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) using R: A workbook*. Berlin, Germany: Springer Nature. doi:<https://doi.org/10.1007/978-3-030-80519-7>
- Haroon, U., & Shariff, M. N. M. (2017). Exploring the impact of brand orientation and relational learning on performance of SMES in Pakistan. *International Journal of Economics, Business and Management Research*, 1(4), 325-340.
- Hilmiyanti, N. D., & Kusumastuti, R. (2021). The influence of organizational learning capability and organizational creativity on organizational innovation (study at PT XYZ). *Hasanuddin Economics and Business Review*,

4(3), 13-19.

- Iglesias, O., Markovic, S., & Rialp, J. (2019). How does sensory brand experience influence brand equity? Considering the roles of customer satisfaction, customer affective commitment, and employee empathy. *Journal of Business Research*, 96, 343–354. doi:<https://doi.org/10.1016/j.jbusres.2018.05.043>
- Jam, F. A. (2019). Crypto currency a new phenomenon in monetary circulation. *Central Asian Journal of Social Sciences and Humanities*, 4(1), 39-46.
- Jam, F. A., Mehmood, S., & Ahmad, Z. (2013). Time series model to forecast area of mangoes from Pakistan: An application of univariate ARIMA model. *Acad. Contemp. Res*, 2, 10-15.
- Jam, F. A., Rauf, A. S., Husnain, I., Bilal, H. Z., Yasir, A., & Mashood, M. (2014). Identify factors affecting the management of political behavior among bank staff. *African Journal of Business Management*, 5(23), 9896-9904.
- Johar, S. S., Lestari, L., & Awada, N. (2020). The art of leadership qualities in human governance of human capital. *Journal of Management Practices, Humanities and Social Sciences*, 4(1), 12-15. doi:<https://doi.org/10.33152/jmphss-4.1.3>
- Khaola, P., & Rambe, P. (2020). The effects of transformational leadership on organisational citizenship behaviour: The role of organisational justice and affective commitment. *Management Research Review*, 44(3), 381-398. doi:<https://doi.org/10.1108/MRR-07-2019-0323>
- Khaskheli, A., Jiang, Y., Raza, S. A., Qureshi, M. A., Khan, K. A., & Salam, J. (2020). Do CSR activities increase organizational citizenship behavior among employees? Mediating role of affective commitment and job satisfaction. *Corporate Social Responsibility and Environmental Management*, 27(6), 2941–2955. doi:<https://doi.org/10.1002/csr.2013>
- Khattak, A. (2022). Hegemony of digital platforms, innovation culture, and e-commerce marketing capabilities: The innovation performance perspective. *Sustainability*, 14(1), 1-13. doi:<https://doi.org/10.3390/su14010463>
- Mohajeri, M., Narimani, S., Shahbazzadeh, F., Bahrampanah, S., & Qaderi, V. (2021). Assessing readiness to change in regular breakfast consumption among elementary students. *Journal of Education and Health Promotion*, 10, 1-5. doi:https://doi.org/10.4103/jehp.jehp_1669_20
- Nguyen, T., Pham, T., Le, Q., & Bui, T. (2020). Impact of corporate social responsibility on organizational commitment through organizational trust and organizational identification. *Management Science Letters*, 10(14), 3453–3462. doi:<https://doi.org/10.5267/j.msl.2020.5.032>
- Nousopoulou, E., Kamariotou, M., & Kitsios, F. (2022). Digital transformation strategy in post-COVID era: Innovation performance determinants and digital capabilities in driving schools. *Information*, 13(7), 1-14. doi:<https://doi.org/10.3390/info13070323>
- Núñez, A. R., Marquez, E., Zayas, M., & López, E. (2020). Relationship between organizational citizenship and commitment in Puerto Rico banks. *International Journal of Sociology and Social Policy*, 40(7/8), 643-658. doi:<https://doi.org/10.1108/IJSSP-02-2020-0028>
- Odoardi, C., Battistelli, A., Montani, F., & Peiró, J. M. (2019). Affective commitment, participative leadership, and employee innovation: A multilevel investigation. *Journal of Work and Organizational Psychology*, 35(2), 103–113. doi:<https://doi.org/10.5093/jwop2019a12>
- Oguebe, T. M., & Edosomwan, H. S. (2021). Organizational-based self-esteem and organizational identification as predictors of turnover intention: Mediating role of organizational trust. *SEISENSE Journal of Management*, 4(2), 56–71. doi:<https://doi.org/10.33215/sjom.v4i2.620>
- Purwanto, A., Asbari, M., Hartuti, H., Setiana, Y. N., & Fahmi, K. (2021). Effect of psychological capital and authentic leadership on innovation work behavior. *International Journal of Social and Management Studies*, 2(1), 1–13. doi:<https://doi.org/10.55555/ijosmas.v2i1.4>
- Qiao, W., & Li, L. (2021). Research on the relationship between capital structure and financial performance of air transport companies listed on the Shanghai and Shenzhen Stock Exchange of China. *International Journal of Business and Administrative Studies*, 7(3), 27-41. doi:<https://dx.doi.org/10.20469/ijbas.7.10003-3>
- Ramírez-Solis, E. R., Llonch-Andreu, J., & Malpica-Romero, A. D. (2022). Relational capital and strategic orientations as antecedents of innovation: Evidence from Mexican SMEs. *Journal of Innovation and*

- Entrepreneurship*, 11(1), 1–19. doi:<https://doi.org/10.1186/s13731-022-00235-2>
- Sankowska, A. (2016). How organizational trust affects the market position: The mediating role of innovativeness and operational efficiency. empirical results. *Innovar*, 26(61), 9-24.
- Shahzad, K., Arenius, P., Muller, A., Rasheed, M. A., & Bajwa, S. (2019). Unpacking the relationship between high-performance work systems and innovation performance in SMEs. *Personnel Review*, 48(4), 977-1000. doi:<https://doi.org/10.1108/PR-10-2016-0271>
- Sutanto, E. M. (2017). The influence of organizational learning capability and organizational creativity on organizational innovation of universities in East Java, Indonesia. *Asia Pacific Management Review*, 22(3), 128-135. doi:<https://doi.org/10.1016/j.apmr.2016.11.002>
- Torres de Oliveira, R., Gentile-Lüdecke, S., & Figueira, S. (2022). Barriers to innovation and innovation performance: The mediating role of external knowledge search in emerging economies. *Small Business Economics*, 58(4), 1953-1974. doi:<https://doi.org/10.1007/s11187-021-00491-8>
- Vargas-Hernandez, J. G., & Gonzalez, O. C. V. (2020). Innovation in utility craftsmanship: Analysis based on human capital. *International Journal of Business and Economic Affairs*, 5(1), 42-50. doi:<https://doi.org/10.24088/ijbea-2020-51005>
- Waheed, M., Kaur, D. K., Ul-Ain, N., & Qazi, A. (2013). Influence of moodle module features on student motivation to use elearning system. In *International Conference of Learning International Networks Consortium (LINC)*, Cambridge, MA.
- Wang, J., Bu, L., Li, Y., Song, J., & Li, N. (2021). The mediating effect of academic engagement between psychological capital and academic burnout among nursing students during the COVID-19 pandemic: A cross-sectional study. *Nurse Education Today*, 102, 1-6. doi:<https://doi.org/10.1016/j.nedt.2021.104938>
- Zia, N. U. (2020). Knowledge-oriented leadership, knowledge management behaviour and innovation performance in project-based SMEs. the moderating role of goal orientations. *Journal of Knowledge Management*, 24(8), 1819-1839. doi:<https://doi.org/10.1108/JKM-02-2020-0127>