

Role of Psychological Capital as a Mediator between Human Resource Flexibility and Innovative Work Behavior: A Case Study of IT Sector of Peshawar, Pakistan

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Abstract

The purpose of this research was to describe the influence of human resource flexibility on innovative work behavior with mediating role of psychological capital in the information technology sector of Peshawar, Pakistan. The organizations have to be innovative to achieve a competitive advantage. Innovation is considered an important factor for achieving success, consistent growth, and survival of organizations. Therefore to gain a competitive edge, organizations should focus on innovative work behavior. This research focuses on psychological capital with human resource flexibility to overcome the challenges faced in sustaining innovative behavior in an organization. Data were collected from 19 IT companies that were registered with Khyber Pakhtunkhwa Information Technology Board (KPITB). The data was gathered by 140 respondents working in these companies using a quantitative research approach. The research design consists of a questionnaire survey. Analysis was done by using SmartPLS. Results show that human resource flexibility has a positive and significant effect on innovative work behavior. Whereas the mediating role of psychological capital between human resource flexibility and innovative work behavior was also supported by results. This study shows that managers should enhance their employee's skills and Psycap through continuous efforts while developing proper plans to deliver higher innovation in IT firms. Moreover, innovation is very important for the success of organizations. This study provides directions for future researchers to enhance the performance of employees through innovation.

Keywords: Psychological Capital, Human Resource Flexibility, Innovative Work Behavior.

Introduction

Organizations gain a competitive advantage through innovation (McAdam & Keogh, 2004). The firms have developed innovative behavior patterns and are interested to grow their innovative activities (Sweetman, Luthans, Avey, & Luthans, 2011). According to Yuan and Woodman (2010) stated that in businesses, the innovative behavior of employees is the key element to make an organization achieve its goal. Similarly, Ortt and Van Der Duin (2008) stated competitiveness was also lessened by innovation in businesses. The employee's innovative behavior includes producing, realizing, and applying new ideas in an organization (such as merchandise and different procedures and methodologies). Lumpkin (1996) defines innovation as generating new ideas to solve problems through different creative methods and come across market needs.

However sustaining a competitive edge in a market organization needs innovative people (Abbas & Raja, 2015). The innovative behavior in the workplace concentrated on the background and dispositional aspects for the sustainability of an organization (Ziyae, Mobaraki, & Saeediyoun, 2015).

Liao and Wu (2010) describe innovation can be defined as a new implementation plan by the heads of the organization, a new product or service, it can be a managerial system, new technology, new structure, or a manufacturing process. Knowledge and digitalization have brought many changes to the corporate world (Chen & Li, 2015). Nowadays increased competition, uncertainty, transformation, and complex environment are faced by the firms (Jiménez-Jiménez & Sanz-Valle, 2008). Companies have to achieve a competitive advantage, able to adapt and respond to changes and requirements of the environment, flexibility, and is capable of producing and implementing new ideas to survive in the market (Jiang, Wang, & Zhao, 2012).

Those companies which are inclined towards creativeness and innovative strategies have employees who show innovative and entrepreneurial behaviors (Ali, Anas, Abbas, & Khan, 2017). So, it is very important to know that what makes the employees behave innovatively and how can a firm stimulate the desired (innovative) behavior in the employees at the workplace (Eenik, 2012).

Human Resource Management has a vital role in creating business strategies that support innovation effectively (Do, Yeh, & Madsen, 2016). Flexible human resource management is another area of interest of researchers nowadays, as it makes the firm able to stretch and adapt to the environmental changes, uncertain endeavors require in both the internal and as well as in the external environment (Kumari & Pradhan, 2014). The most important aspect of flexibility is human resource flexibility (HRF) which stimulates or shapes the skill, ability, and behavior of employees according to the needs of changing environment (Ngo & Loi, 2008). HRF motivates the employees to utilize new ideas and information (knowledge) and make flexible adjustments in the employment model, plans, training, and structures, etc. (Chen & Li, 2015).

Human resource management effect employees' innovative work behavior because it targets employee skills, motivation, abilities, and opportunity enhancement (Pukienė, 2016). Human resource management allows the employees to show their productivity by demonstrating their talent in the form of innovative ideas (Prieto & Pérez-Santana, 2014). Innovative work behavior involves idea generation, adoption, and implementation of novel ideas (Scott & Bruce, 1994; Xerri & Brunetto, 2013).

Innovation-seeking companies give great value to innovative work behavior as the success of such companies depends on their employees because their innovative behavior and adaptability lead them towards innovation (Abstein, Heidenreich, & Spieth, 2014). Innovative work behavior of employees in the broader way leads organizations on the road to innovation and eventually achieve competitive advantage (Pukienė, 2016).

Traditionally the word capital has been used with economic capital than to human capital and after that to social and then given to psychological capital (Jafri, 2012). Luthans, Avolio, Avey, and Norman (2007) in their study describe four characteristics of Psychological Capital include efficacy, resilience, hope, and optimism. It allows an individual to perform its activities with more creativity and innovative ideas. Luthans et al., (2007) define Psychological Capital can be managed and invested the same as social and economic capital. Like other traditional capitals, it can be achieved with little investment.

Luthans and Youssef (2007) describe Psychological Capital as a psychological growth condition of individuals. Its features include self-efficacy also known as confidence, which gives them the strength to put all the efforts and effectively accomplish tasks, positivity or optimism makes an individual look at everything positively to get success in the present as well as in the future, hopefulness makes a person

determined towards goal achievement and thinking about new ways to achieve goals, and resilience makes a person stay strong in hard times and tolerate and react to hardships towards the achievement of the goal. In Pakistan, the IT industry is promising and from the last four years, it's growing rapidly. Around more than 4000 IT companies are present and so far 15 different software technology parks are established in different cities. The number is growing every year of IT professionals having professional knowledge in modern and emerging software, products, and technologies. Pakistan software export board is a government entity authorized to encourage and upgrade IT industry in international and local markets. IT industry is facilitated by Pakistan Software Export Board (PSEB) through a series of projects and programs in human capital development, infrastructure development, strategy and research, international marketing and promotion of innovation and technology (Pakistan Software Export Board, n.d.).

Khyber Pakhtunkhwa Information Technology Board (KPITB) is a KPK government autonomous body which was established for the promotion of Information technology, IT enabled education and services for both private and public sectors. KPK is rapidly expanding internet and mobile connections as it is undergoing a digital transformation and has the potential to expand job opportunities, improve service delivery and drive growth significantly. In order to support this digital transformation, there is a provincial strategy that focuses on supporting regulations, institutes and capabilities. Strategy has four pillars i.e. digital governance, digital economy, digital access and digital skills (Khyber Pakhtunkhwa Information Technology Board, n.d.).

Research Gap

Many studies have been conducted on the role of human resource management in innovation (Karlsson, 2013; Jiang et al., 2012). Kumari and Pradhan (2014) in their study have specified flexible Human resources however their study lacks the behavioral aspect of individuals within an organization which could be the key factor to promote flexible human resources for innovation for a firm (Ali et al., 2017). This research is explanatory and identifies the behavioral perspective of employees to fill the gap and investigate the phenomena. This study also emphasized the IT sector of Peshawar, Pakistan which was ignored in previous studies. Pakistan has an enthusiastic software industry that is confronted with a wide variety of challenges (Nafees, 2019). Many studies have been conducted on innovative behavior that collected the data from a diverse sample such as employees working in banks, telecommunications sector, textile and government officials. As in such sectors, innovation may not be as highly desirable as in high-tech firms (Abbas & Raja, 2015).

Problem Statement

The role of Human Resource Management in innovation has always been ignored, only 20% of Human Resource professionals get involved in process of innovation which means most of the organizations are unaware of how much the role of human resource is important in the innovation process. IT firms in Pakistan have achieved significant growth but its diffusion has met many challenges such as improper planning, management, and employee non-cooperation and unawareness of proper IT technologies (Nafees, 2019; Shaukat & Zafarullah & Wajid & Abdul, 2009). As yet the IT sector of Pakistan is lacking behind the world, the importance of IWB is known, still, organizations are unable to trigger the innovative work behavior of employees due to many reasons such as lack of knowledge and restricted possibilities. These challenges can be minimized by triggering innovative work behavior in employees as it leads to the innovative performance of the firm. HRF enhances the innovative work behavior of employees. Some studies show the direct relationship between HRF and IWB while on the other hand, some studies show indirect relation. The purpose of the study is to investigate the relationship between HRF and IWB through mediating effect of psychological capital.

Research Questions

1. Does Human Resource Flexibility affect the innovative work behavior of employees of the organization?
2. Does Psychological Capital intermediate the relationship between human resource flexibility and innovative work behavior?

Research Objectives

1. To examine the effect of human resource flexibility on innovative work behavior.
2. To investigate the association between psychological capital and innovative work behavior.
3. To investigate the mediating effect of psychological capital between human resource flexibility and innovative work behavior.

Significance of the Study

This study is significant for information technology companies to emphasize employee productivity, cognitive capabilities, and processes to improve efficiency which ultimately affects the overall performance of the organization. Psychological capital is related to positive job outcomes specifically related to performance, satisfaction and turnover intentionally (Abbas, Raja, Darr, & Bouckennooghe, 2014). The positive attitude of employees towards innovativeness helps the organization to achieve its goals effectively. It is significant for an IT industry to consider the psychological capital of its employees which can lead towards innovation in their organizations. The psychological capital with influence of human resource flexibility can bring the innovation in IT as one of the most obvious waves visualizing of this “new IT paradigm” (Liao and Wu 2010). The HRF helps the organization to shape the characteristics of employee (skills, attributes and behavior) according to the company culture. This study also adds to the existing literature as very little research work has been done in this area specifically in Peshawar.

Scope of the Study

This study contributes to the existing literature in human resource management and helps the IT industry to overcome the emerging issues and challenges by triggering the innovative work behavior of their employees. This study would help other organizations to improve their performance by knowing that competent employees having innovative work behavior and psychological capital plays a very strong role in increasing the performance of a firm.

Literature Review

Psychological Capital

Organizational behavior has recently added psychological capital in its literature (Luthans & Youssef, 2007). Psychological Capital is usually used for psychological capital. Luthans and his colleagues describe Psychological Capital as a state-like measure that can be well defined in research and theory. It can be developed by deliberate practices and training (Avey, Luthans, & Youssef, 2010; Luthans, Luthans, & Jensen, 2012). Conversely, they characterized Psychological Capital as the evolution of the individual positive psychological state. Psychological capital has been characterized by four facets i.e. optimism, hope, resilience, and efficacy (Luthans & Youssef, 2007).

Psychological Capital acknowledge as a positive high-performance construct (Abbas & Raja, 2015; Luthans & Youssef, 2007) which explicate such as self-efficacy by taking confidence is a compulsory effort to complete the task, optimism is developing a positive attitude to be successive in present and future,

while hope is a continuous approach towards a goal to be successful and resilience is surrounded by difficulties and hardships, nourishing and taking actions to stand strong (Luthans & Youssef, 2007).

The science of positive psychology is essentially a positivity of individual personality, positivity concerning person experience, the positivity of organizations to develop and enhance the quality of life and avoid different cognitive disorders that develop when an individual is depressed (Seligman & Csikszentmihalyi, 2000). According to Nelson and Cooper (2007) defines that positive organizational behavior emphasizes more on the strengths of their employees relatively than weaknesses. As a matter of fact, in an organization Psychological Capital navigate to raise the value of humans (skills and knowledge of particular employees) and social (individual social network) capital (Luthans, 2002; Stajkovic & Luthans, 2001). Psychological capital can be achieved by little investment as done for social and human capital and as well as unlike traditional capitals (Luthans et al., 2007). Psychological capital leads to positive job outcomes specifically related to performance, satisfaction, and turnover intentionally (Abbas et al., 2014; Luthans, Norman, Avolio, & Avey, 2008).

The Psychological Capital has diverged characteristics that can vary accordingly to time, development, and change (Luthans et al., 2007). According to Sweetman et al. (2011) endorses, to establishing an individual commitment level for an organization one has to mature its Psychological Capital. Normally people with a high level of positivity have high engagement levels and are more social. Likewise, people with low positive emotion has to face a low level of Psychological Capital (Avey, Luthans, & Jensen, 2009). It assimilates organizational behavior and a positive approach in different ways.

Psychological Capital as a State-like Construct:

According to the positive psychological literature, Psychological Capital and its abilities or resources are not just a fixed characteristic but is comparative/ superlative (Avey et al., 2010). As there are no common features in positive attributes and conditions empirically and conceptually, therefore modern studies also support their uniqueness and discriminant validity (Avey et al., 2010).

Luthans and Youssef (2007) explained that:

- Positive characteristics remain stable over time and in different situations. It includes those attributes which are permanent and do not change like genetic attributes and intellect.
- A trait like constructs in psychological traits that are stable like sociability or outgoingness, self-evaluation, and consciousness.
- A state like psychological resources involves Psychological Capital and its components positivity, confidence, hopefulness, flexibility, and optimism. These characteristics are flexible and can be developed by a person according to the workstation and working environment.
- Positive states are short-lived and frequently changing conditions like mood and feelings.

Hannah and Luthans (2008) provide a model in which Psychological Capital is planned to come from self-motivated practices that stimulate expectations, aims, norms, and values and self-monitoring ideas which are started particularly and are specifically linked to the setting or situation. While on the other side, trait-like attributes are universal which give usual or trained responses that are shown on chronic stimulation of intellectual affective processing units. Exposure and prearranged provocations can guess the response. There might be people who show general efficacy which is a trait-like construct not state-like, theorized by (Bandura, 1997), which makes them more confident and successful in different situations and settings over time. While self-efficacy is a state-like construct and a very important part of Psychological Capital and it is related to area or field and it can be created for a particular setting, situation, or a job by having experience, demonstration, motivation, and physical and mental arousal (Bandura, 1997). These characteristics of Psychological Capital tend to create positive expectations and stimulate goal setting and achievement and motivation which leads to persistence and success in a specific situation. The social cognitive theory provides the basis for Psychological Capital (Bandura, 1997), which creates mutual

relations between people, their past performance or behavior, and the environment. It supports the difference between trait-like attributes and flexible Psychological Capital construct. Moods, feelings, and sentiments are short-lived or temporary as compared to state-like Psychological Capital. Psychological Capital capabilities should be maintained to achieve success and to achieve goals. Positivity and positive feelings also lead to the attainment of tangible objectives, performance impact inclusion criterion goes beyond “emotion-focused coping” it is a gentle review of a harmful condition and “problem-focused coping” which is concerned with actions to bring changes in the condition (Lazarus, 2009).

High test correlations intended for known attributes like personality support the difference between traits and states while the highly significant and comparatively low correlation for state-like for example Psychological Capital (Avey et al., 2010). Short exercises and training also show an important role in the growth of Psychological Capital (Luthans, Youssef, et al., 2007). Avey et al., (2010) emphasized time and said that it is the main effect variable in organizational behavior.

Psychological Capital is a Core Construct

The fundamentals of Psychological Capital are a combination of efficacy, hope, optimism, and resilience. This construct has multiple dimensions identified by these mentioned four psychological resources. It is important to emphasize, a) the discriminant validity and convergent between other positive constructs and Psychological Capital b) discriminant validity and focus between constituent capacities of Psychological Capital, to direct the theoretical reasoning and Psychological Capital construct validity (Avey et al., 2010). Many psychological constructs like courage, wisdom and emotional intelligence were evaluated to fit in positive organizational behavior inclusion criteria but for Psychological Capital the best fitting components were hope, optimism, resilience, and efficacy (Luthans & Youssef, et al., 2007).

The self-appraisals that affect how a person evaluates include emotional stability, self-efficacy, and locus of control, self-esteem. Other people around us influence this appraisal and behaviors in different situations and conditions (Judge & Bono, 2001). Regardless of conceptual resemblance and overlap between optimism, hope, efficacy, and resilience, all these constructs are empirically and conceptually analyzed and evaluated and they have construct validity. Hope and efficacy have internal motivation and energy or positive feeling for success and confidence and belief in one's abilities. Employees having such attributes are challenging and set challenging objectives and like to do challenging tasks with commitment which leads towards success. Hopeful employees tend to develop alternative pathways to achieve a single goal (Avey et al., 2010). This is what Snyder (1994) discussed as flexibility insurance where individuals are always hopeful about goal achievement as they think there is always a way to chase. Hopeful people are always considered and they never get out of options as they are a means to ultimate success. Hope provides many alternatives, motivation, efficacy, and energy to a person. Each of these four constructs shows positive expectations for the future but optimism can be more general and create a global expectation of achievement but hope and self-efficacy are specific to a specific area or goal. Similarly, resilience is not an internalized perspective, it includes organizational resources and social support and buffering mechanisms. Buffering mechanisms include organizational sense-making, collective schemata, organizational learning, and mental model development.

Optimism, hope, and efficacy act in advance while resilience is mostly expressed to act after something happens (Luthans, 2002). Masten and Reed (2002), adaptation processes of resilience are mechanisms to effectively utilize the assets such as skills, resources, cognitive, affective, financial, social, and other positive attributes to reduce risk, weaknesses, or negative aspects. Similarly, hope involves finding alternative ways to solve a problem or achieve goals. The adaptation mechanism, goal achievement, and environmental influence differ in these 4 capacities and each one has its unique contribution in multi dimensioned Psychological Capital. These four psychological resources are integrated through explanatory frameworks and showed the connection of these four constructs in a core confidence model (Stajkovic, 2006). According to the previous study, Psychological Capital was measured in the best way as a second-

order factor. Psychological Capital is related to satisfaction and performance consistently as indicated by the usefulness analysis (F. Luthans & Avolio, et al., 2007).

Empirical results show both discriminant validity and convergent validity in all facets which collectively build Psychological Capital when employee samples were evaluated (Luthans et al., 2007). The whole empirical also conceptual studies support psychological capital as a vital theory that contains four positive constructs or psychological resources (Avey et al., 2010).

Human Resource Flexibility

Organizations focused more on the knowledge, commitment, and expertise of staff members (Youndt, Snell, Dean, & Lepak, 1996). In addition to this Yuan and Woodman (2010) examined that some organizations focus on hiring more motivated people for innovation. Wright and Snell (1998) stated that HR flexibility theoretical modules can be used in general including employee behavior flexibility, employee skill flexibility, and human resource practices. Do et al. (2016) describe high employee skill flexibility inspires the workers of a particular organization to polish off the variety of skills. Through a wide-ranging of the different skill levels of employees, an organization can proficiently adopt market change situations. HRF also allows organizations in a dynamic environment to be adaptive and operate effectively. It allows the organizations to change accordingly to the market conditions respectively (Do et al., 2016).

Wright and Snell (1998) define the concept of human resource flexibility management as firms HR employees have varieties of skills and behaviors that allow a firm to deal with the competitive business environment, furthermore to develop, identify, and implemented such HR practices which can quickly and at maximum level can be flexible for human resource. According to Bhattacharya et al., (2005) define the flexibility in employees can be judged by their learning ability, the quicker they learn quickly they perform the given task.

In the HRM field, the Resource-Based View of the firm is an effective context. It provides remarkable concepts and highlights the knowledge regarding the HRF (Bhattacharya & Gibson & Doty, 2005). Wright and Snell (1998) as hypothetically, sense of flexibility of human resources gives internal direction since it mentions the degree to skillful employees which give a choice to an organization to pursue other key options. The analysts should try more notable efforts to untie the meaning and parts of the adaptability of human resources. Such employees carried together with the right HR practices and competitive measurements (Bhattacharya et al., 2005).

An organization's capability to quickly respond to the strategic demands from the market is termed flexibility (Sanchez, 1995). HR flexibility is one of the most important and valuable capabilities of an organization (Wright & Boswell, 2002; Wright & Snell, 1998). Scholars in the HRM field are paying more attention to human resource flexibility. Firms which have HR flexibility systems are more adaptable towards various challenges and needs of the external market (Wright & Boswell, 2002). Firms that have HR flexibility systems have more competent employees and they are more competitive and skilled due to which their performances increase. It is important to consider the current challenging situation as the strategic demands and rapid economic growth are changing (Eldridge & Nisar, 2006). Hence HR flexibility is an important system for increasing organizational capability which emphasize on adopting traits of employees such as knowledge, skills and behavior. Human resource flexibility contributes to the firm performance (Bhattacharya et al., 2005). There is a positive relationship between HRF and firm performance. Therefore HRF is considered a competitive advantage for a firm and increases the effectiveness of a firm (Bhattacharya et al., 2005). It ultimately leads to increased performance. Human resource flexibility focuses on the multifaceted nature of the employees including their expertise conduct and learning. It enables a person's capability to redevelop (develop), reconfigure (organize), and put in human resource systems that manage employees who are capable and competent and have competencies

that increase the capacity of the organization as a whole to compete in the market and respond to new changes and innovation. Firms that have human resource flexibility systems can adapt to different changing environmental potentials, prospects, and opportunities (Youndt et al., 1996). Employees of organizations having the benefit of a flexible work system have more concern towards the achievement of organizational goals and objectives that helps an organization to increase their performance (Beltrán-Martín, Roca-Puig, Escrig-Tena, & Bou-Llusar 2008). HRF shows a positive influence on innovative work behavior and creativity which increases organizational efficiency. Human resource flexibility not only helps the organization system to value employee current performance however also helps to identify the ways through which their capabilities, skills, and knowledge can be enhanced. All this collectively motivates them to work better in the organization and as a result, employees become proactive and effective which leads to efficient and effective firm performance (Ali et al., 2017). Ketkar and Sett (2009) state that human resource flexibility not only increases employee performance but also enhances the overall performance and productivity of the organization. HR flexibility has a positive influence on employee satisfaction. Employees in firms that have a higher HR flexibility system are more satisfied with their job which enhances the firm performance (Galinsky, Sakai, & Wigton, 2011).

The three facets of HR flexibility comprise employee skill flexibility, employee behavior flexibility, and human resource practice flexibility.

Skill Flexibility

Employee resource flexibility includes capabilities and competencies of employees which he already possesses or can acquire. Which enables them to perform alternative work responsibilities such as tasks, roles, jobs, alternative technology, etc. Skill flexibility involves how easily and effectively new skills were adopted by employees in the organization (Ketkar & Sett, 2009). Skill flexibility can be classified into two methods. First, employees have different broad-based skills and they are much competent in using those skills in different challenging situations. Broad-based skills are critical for producing desirable productivity for already existing needs and are the requirement of the firm and likewise competent in greater productivity of the firm as its possible alternative want (Bhattacharya et al., 2005). Skills possessed by the employees might not affect the innovative opportunity of the business in the current situation but it may affect the strategic choices of the firm in the future (Wright & Boswell, 2002).

Secondly, a firm could utilize professional employees to provide flexibility by assigning an organization to reshape the skill contours to line up the strategic needs of the market. By adopting the skill flexibility the organizations reorganize their employees by assigning teams to achieve the desired aptitude skills that can be met with the involved demand (Jiang et al., 2012). The adaptability and aptitude can be broadened by an organization through job rotation. Employees having flexibility can easily deal with/tackle different job requirements. They can meet market needs and requirements, customers and able to manage the stress related to the job effectively. All this collectively contributes to organizational efficiency and increases firm performance.

Behavior Flexibility

It refers to changing or altering oneself to new situations. It is different from the routine work or behavior which employees have to do in a firm. Resource flexibility in the behavioral workforce refers to how many current employees have and are willing (encouraged) to use behavioral content that can be applied to elective jobs (Wright & Snell, 1998).

It shows the adaptable behavior and attitude of employees which differ from routine behavior and to which extent the employees have behavioral characteristics which they can adapt in different situations and according to the specific demands. It is different from skill flexibility in such a way that employees possess different skills however they lack behavioral motivation towards change, or they might have the motivation

to change but they may not have the required knowledge and skills required to change or make a decision (Macduffie,1995). Behavioral flexibility of employees is very important because it helps the employees to tackle different conditions and facilitates the implementation of change. According to the employees having increased learning capabilities, the firms don't require to appoint new employees having characteristics to meet organizational changes. Many types of research proved that behavioral flexibility positively influences organizational performance. Those organizations which have a culture of flexibility adapt to the changing environment and increase organizational efficiency and performance (Bhattacharya et al., 2005).

Organizations that adapt to learning and modifying the behavior of the firm reflect new insights successfully increased the firm performance (Kumar, Pradham, & Kumari, 2017). The employees possess behavioral flexibility to enjoy relationships with colleagues and subordinates and have more likability in the workplace. They tend to behave more positively in any kind of situation and circumstances that may arise. This helps the organization and other employees to perform effectively in different situations.

HR practice flexibility

It refers to how rapidly and productively new HR practices are adjusted and executed in the organization. It refers to how quickly and effectively a firm can implement alternative HR processes and structures. It involves implementing those HR practices which are different from firms currently employed. It enables the organization and its employee to adapt and implement such practices in different situations and units of the firm. These alterations are applied with stimulating hustle (Wright & Snell, 1998). Flexible organizations emphasize human resource flexibility because it increases human resource practices as well as employee behavior flexibility. It directly affects employee effectiveness and performance (Ngo & Loi, 2008). Flexible HR practices allow organizations to take flexible work plans which help them to perform well. Human resource practice flexibility includes human resource methods that are composed of practices such as recruitment, development, dismissal, retention, and motivating employees in different environmental situations. It increases the effectiveness and productivity of the employees and allows them to work in a stress free condition (Kumar et al., 2017).

Innovative Work Behavior

Innovation also involves the adjustment of elements or procedures from outside an association. The researches exploring innovation as a multistage process and idea generation is the first stage on which they invade many social elements (Kanter, 1996). The two terminologies creativity and innovation are regularly used in literature, and the differentiation between these has been highlighted more (Street & Christopher, 2001). The progress relates to the formation of precious ideas and more on the implementation of the idea (Kanter, 1996). Although creativity is often thought of as "doing something new or producing new information" (Yuan & Woodman, 2010).

The innovation starts with problem recognition. Therefore, innovation is a multistep process, which has different actions & individual behaviors required respectively for different phases. Individual behaviors can be expected at all times in any combination and innovation is distinct sequential steps because it is characterized by uneven activities (Scott & Bruce, 1994).

The innovative work behavior opposes the creativity of employees to the formation of new ideas on training, management, services, procedures, and methods because it also integrates the execution of ideas (De Jong & Den Hartog, 2010). The IWB is per the behavior of a person which means received at the beginning and measured overview of new ideas, procedures, elements, or strategies (Farr & Ford, 1990). According to West (2002), defines creativity can be considered an essential segment of the innovative work behavior, usually clear advancement process before problems or gaps in performance perceived and the thoughts are created for need of innovation. IWB is proposed to give some sort of benefit and is necessary

to bring about innovation. IWB hypothetically recognizes different measures, which are frequently related to different innovation process phases.

Based on Kanter (1996) describe innovative work behavior as three important phases such as idea generation, second is idea promotion, and last of all idea implementation. However, we note that the age of thought is somewhat broad, as it is proposed to incorporate behavior practices for studying and creating different ideas. Scott and Bruce (1994) describe innovative work behavior as a multiple steps procedure.

Many researchers are interested to focus on those factors which lead to employee innovative work behavior. Although innovative work behavior is positively related to the performance of the firm on the other side scholars have also investigated its negative effects as well. For example, innovative work behavior of employees might generate some conflicts and issues such as uncertainty and insecurity between innovative employees and other co-workers. To deal with such issues organizations need to hire new employees who can perform their job as well as show innovative behavior. Innovative work behavior includes intentional formation, beginning, and application of new ideas and thoughts in the workplace performing different jobs role, working in a group, company to increase the role performance in a firm (Waheed, Xiao-Ming, Ahmad, & Waheed, 2018).

According to some studies employees in some levels of the organization may not be motivated towards or inclined towards new ideas and innovation as it is not required in their work or job. Empirical evidence proves that innovative work behavior is possessed by the employees within themselves (West, 2002). Innovative work behavior is positively related to the performance of the firm (Dorner, Oliver, & Felicitas, 2012). As workers are constantly engaged in learning inside and outside the organization, this also leads to the expansion of information progression and encourages individual experiences and shared discovery that generates a new value (Leong & Rasli, 2014). As innovative work behavior has so many benefits but very limited research work has been done on the benefits of innovative work behavior (Janssen, Van de Vliert, & West, 2004).

Innovative work behavior includes the generation of new ideas, processes, procedures, and products (Ortt & Van Der Duijn, 2008). The innovative work behavior process involves the idea generation phase, coalition building phase, and implementation phase (Scott & Bruce, 1994). Previously there was one dimension model of innovative work behavior (Dorenbosch, Engen, & Verhagen, 2005; Onne Janssen, 2000) proposed a two-dimension model and (Reuvers, Van Engen, Vinkenburger, & Wilson-Evered, 2008) proposed a three-dimension model. Researches in recent studies identified innovative work behavior from different behavioral perspectives such as problem recognition, idea generation, idea promotion, and idea realization. These activities increase the ability of employees to work innovatively (De Jong & Den Hartog, 2010). From these four perspectives, creativity-oriented behavior includes a problem with ignition and Idea generation activities why implementation-oriented behavior includes Idea promotion and Idea realization. Researches prove that employees who are willing and able to work innovatively contribute beyond their job requirements (Waheed et al., 2018).

Innovation is very much important for an organization's long-term survival and its effectiveness and better performance (Carmeli & Spreitzer, 2009). Innovative behavior includes the generation, promotion, and implementation of innovative ideas (Scott & Bruce, 1994) and product processes and procedures. In the education sector innovative behavior of teachers improves the quality of education. The higher education system of China is bringing different changes in its education system to align with the National innovation system which increases the science and information technology capabilities of the country (Jiang et al., 2012).

Creativity and innovation play a very important role in increasing market share, the profitability of the firm, creating employment, generate revenue, increase GDP and reduce bankruptcy (Dodgson, Gann, & Coopmans, 2008). Innovative behavior of employees improves the knowledge and Technology which leads

to the achievement of success. Innovative work behavior also includes the creation of innovative products and services and value creation bringing creativity in business conditions such as the structure, psychology, and social aspects which influence the innovation process (Yonla, Johnmark, Liman, Gani, Sortu, & Longdi, 2019).

Innovative work behavior improves the creativeness of employees and in today's business environment Employees with a creative and future-oriented mindset are very much important for business change. Employees who produce creative and novel ideas are risk-takers who are willing to try new things and are open to change (Janssen et al., 2004). Small and medium enterprises need to focus more on innovativeness and focus on the personal ability of employees to increase innovative work behavior (West, 2002). Studies on innovative work behavior not only include technological aspects but also include social and psychological capital (Bos-Nehles, Renkema, & Janssen, 2017). In the modern world, businesses must know and understand the need for innovation and creativity in an organization and how the firm performance increases by employee innovative work behavior.

Employee Innovative work behavior leads to teamwork as well as sharing of knowledge in the workplace (Kanter, 1996). The behavior of individuals towards innovation initiating new ideas, processes, procedures, and products in an organization is called innovative work behavior of employees (De Jong & Den Hartog, 2010). It also involves the process of generating new ideas, promoting them, and applying them to increase firm performance (Janssen, 2000). All three stages that are generation, promotion, and application of new ideas takes place in a sequence consecutively (Scott & Bruce, 1994) in each stage employees show a combination of different behaviors. When a person shows up with a new idea to solve a problem to implement that Idea he needs support and promote the idea and implement it in a work role, group, or whole organization (Van der Vegt & Janssen, 2003).

Innovative work behavior also includes finding solutions to the problems, identification of unsatisfied needs of people, indications of future trend change (De Jong & Den Hartog, 2010), finding new solutions, sharing information and knowledge to other people, and resolve the problem with innovative ideas and creative ways (Yuan & Woodman, 2010).

Innovative work behavior is different from creativity because it not only includes the new ideas but it also includes the generation of new ideas promotion and application of these innovative ideas as well and this is the reason why businesses nowadays are more inclined towards innovative work behavior of employees rather than just creativity. Firms nowadays put more effort into enhancing the employee's innovative work behavior to survive the global competition and complex environment (Yonla et al., 2019).

Nowadays the business world has become more complex and dynamic, to grab more opportunities and increase the performance of the firm and survive in competitive environment firms need to become more innovative (Shalley, Zhou, & Oldham, 2004). Innovation initiatives are dependent on the work behavior and human capital of employees which is crucial for the value creation process (Chen & Huang, 2009). Employees show innovative work behavior through everyday innovation making intentional efforts and contributions to provide innovative outputs (Janssen, 2000). Previous researches have discussed the importance of IWB of employees in an organization also discussed the issues related to human resources. The innovative work behavior of employees is the ability of the worker to perform the job creatively and innovatively by providing new ideas and proposing novel solutions to the problems at the workplace. Innovation leads to success, competitive advantage achievement, and organizational survival in a complex and complicated environment. It helps the organization to give respond to market changes effectively and efficiently (Khan, Ali, Olya, & Zulqarnain, 2018). It also helps to overcome and combat the crisis that emerges in an organization. As globalization is increasing and the world has become a global village, and businesses have many opportunities but at the same time, they also face different challenges in the market. To survive in the competitive environment firms need Innovation and innovative employees. An organization's innovation capability is dependent on the capabilities of employees working in that

organization. Organizations, due to their complex and dynamic nature and design, increasing job requirements, increasing workload, and competition need more innovative workers (Dediu, Leka, & Jain, 2018).

From the past 20 years, businesses are more focused on innovation, and the ability of a business to produce innovative products and services has become an essential part of the success of a firm. Not only companies are paying attention to innovation but also researchers. The research was mainly focused on innovation in different levels of the organization, networks, subordinates, and workgroups. The actions of employees are very much important for the Innovation and improvement of a business. (Martín-Hernández, Ramos, Zornoza, Lira, & Peiro, 2020).

Underpinning Theory

The social cognitive theory defines psychosocial activities in three interrelated actions (Triandis, 2004; Bandura, 1986). The model consists of behavior, cognitive & other personal factors, and environmental events that operate as interrelating elements that influence each other. Social cognitive theory is known as a learning theory. It is grounded on the philosophy of how people learn by observing others what they do and what they don't do (Leong & Rasli, 2014).

The theory also suggests that individuals get encouraged by the decisions of their skills to accomplish different milestones and by their expectations of the outcomes of their actions (Hsu, Hou, & Fan, 2011). Such decisions of individual's competencies, self-reliance, and expectations of outcomes are affected by their self-efficacy.

In addition, the social cognitive theory proposes that the individual knowledge is based on the individual perception of others within friendly relations, meetings, or media imitation of the behavior acts as a result of these doings. By this people know their abilities. This aptitude can be established by self-efficacy. The high level of self-efficacy in oneself makes the individual feel more secure and see problems as challenges. They may also set high standards and try more to overcome problems on their own (Leong & Rasli, 2014). Tierney and Farmer (2002) describe the idea of creative self-efficacy as measured as trust (or confidence) which reflects the self-confidence in their capabilities through performing an innovative task. The individuals with greater levels of creativity are more motivated, have cognitive resources, and more enthusiastic towards their tasks. Such individuals invest much of their time in innovative cognitive processes in identifying problems and ideating solutions.

Subsequently, come up with more notable sponsorship research attempts for reflections and create models. In this way, they can effectively perform explicit tasks and achieve authorized progress goals despite obstacles. Studies suggest that human behavior could be determined by the expected outcomes of the behavior, Innovative work behaviors could be also determined by the expectations of the outcome (Yuan & Woodman, 2010).

Relationship between IWB & HRF

The role of organizational flexibility which includes the HRF, emphasizes the behavior of employees that depends on the organization's resources i.e employee abilities and competencies. The relationship between innovativeness and flexibility of the HR system is a blend of an organization's innovative strategy and HRM practices (Leede & Looise, 2005). Similarly, the innovation process requires specific HRM practices such as leadership performance, different task assignments, developing personal & professional knowledge, and change management training for managers. Human resource flexibility plays an important role in creating an organization innovative (Ployhart, Moliterno, & Moliterno, 2011). Through HR practices employers can hire a workforce that is more responsive and adaptive to new changes in market needs and demands. When an organization can adapt to the changes as the market demands and can develop its

workforce, employees according to the needs of the market, it brings innovativeness in the organization and also a competitive advantage which ultimately increases the performance of the firm (Do et al., 2016).

Innovation plays a dynamic part in the survival as well as the evolution of a firm in today's dynamic business world (Lazonick & Prencipe, 2005). Those organization which has innovative abilities can reach the new environment, market changes demand fast and in a better way than those organizations which do not have the innovative capacity and such organizations are much better in the performance than those non-innovative firms (Brown & Eisenhard, 1995).

Human resource flexibility has a positive effect on firm performance because it allows the firm to pursue strategic alternatives which help create competitiveness in the workplace. Thus, human resource management practices can be implemented in an organization to maximize human resource flexibility (Snell, Shadur, & Wright, 2001). Behavior flexibility of employees helps or enables the employee to adapt to specific conditions instead of following standard procedures (Bhattacharya et al., 2005).

Human resource practices are a means to influence and guide the employees' behavior (effective and learning behavior) pleasantly by improving innovative work behavior through enhancing skills, providing motivation and decision making to make flexible efforts (Jiang et al., 2012). Human resource practices empower the employees and lead to productive and innovative behavior that benefits the organization and they try to do their best to give the best results (Prieto & Pérez-Santana, 2014). Previous studies describe that innovative work behavior is influenced by the characteristics of the primary work environment of an employee (Janssen, 2000).

According to the intrinsic motivation perspective, the situation in which the task is performed by an individual influence the intrinsic motivation of that person, which ultimately affects the innovative performance or innovative work behavior as motivation maximize the tendency of being more cognitively flexible, curious, persistent and risk-taker (Shalley et al., 2004).

Chen and Li (2015) argued that while describing the differences between flexible human resource management and traditional Human Resource management. Traditional human resource management emphasizes the efficiency and effectiveness of the firm while flexible human resource management is more concerned about Innovation competitiveness and dynamic adaptation ability of the firm.

Human resource flexibility shapes the innovative behavior of employees as it shapes the skills, attitudes, and knowledge of the workforce according to the situation and enables them to be more innovative (Shipton, West, Dawson, Birdi, Patterson, & Group, 2006). When employees have diverse knowledge, skills, and abilities that enable them to act in any situation or condition confidently, impacts their innovative work behavior (Bos-Nehles et al., 2017).

Skill diversity creates a sense of achievement, self-development, and identity in employees and makes the employees more confident to take innovative actions and indirectly has an impact on the psychology of employees (Chen & Li, 2015). Human resource practices that enhance the skills and behavior of employees which has a positive effect on employee innovative work behavior (Prieto & Pérez-Santana, 2014). Employees pursue behavioral flexibility involve themselves in no routine attitude like taking a risk, adapt to the change, and being innovative, this innovative work behavior of employees makes them more adaptable and they can adjust themselves in every complex and novel situation effectively (Bhattacharya et al., 2005). Innovative employees show multi-dimensional behaviors. This versatility in behavior enables them to behave differently than the routine work, which then leads towards innovative work behavior. Human resource flexibility creates innovative work behavior of employees of an organization (Ali et al., 2017). Flexible human resource practices provide employees with a flexible work plan and motivate them to accomplish their work effectively according to the changing situations and demands of the market (Prieto & Pérez-Santana, 2014).

Employees of an organization are the founders of innovative work behavior and a key foundation of knowledge, skills, and abilities that is why the innovativeness of an organization mainly depends on the employees (Chen & Huang, 2009).

According to Ketkar and Sett (2009) that studies declare that few HR practices support employee's flexible skills and behaviors. Ngo et al. (2011) measured HR practices as a part of the high-performance work system and they are positively related to HRF development which therefore increases organization innovativeness. According to Wojtczuk-Turek and Turek (2015) describe that HRF allows the skilled resources and their divisions in different stages of innovation which are necessary for employment.

H1: Human resource flexibility is positively related to innovative work behavior.

Relationship between HRF and Psycap

Esfahani and Parsa (2017) in their study discussed the effects of human resource flexibility and sustainability for innovative organizations with having a sample size of 136. The problem situated by them was to find out the association among psychological capital, HR flexibility, and sustainable HRM in innovative organizations. Findings discovered that psychological capital and HR flexibility have a positive and meaningful effect. And there is a positive and meaningful effect on innovation by psychological capital.

The human resource system while supporting workplace innovation can be realized by psychological capital as a mediator. The different studies show the psychological capital relationship with employee performance (Avey et al., 2009). The self-efficacy one of the element of psychological capital not just controls the action of an employee but also develop the motivation among them and retain the effort in achieving the tasks (Bandura, 1997). Likewise high self-efficacy an employee makes an effort to achieve ultimate success even in the long term or in difficult situations. It confirms that it strengthens the relationship between self-efficacy and the ability to be flexible (Berg & Velde, 2005).

Similarly, Chen and Li (2015), define self-efficacy as a mediator of the relationships between conscientiousness, performance, and cognitive abilities. Wojtczuk-Turek and Turek (2015) define the employees having high self-efficacy are positive while fulfilling the task and at the same time increases new knowledge. High efficacy increases employee efficiency and in that way builds their readiness to take new challenges and implement changes that are a part of innovative behavior.

Psychological capital is a positive psychological state of individual development with different characteristics that are hope, self-efficacy, optimism, and resilience (Avey et al., 2009; F. Luthans, Youssef, et al., 2007). The study investigates the relationship in the context of flexibility between PsyCap and individual innovativeness in the workplace can be analyzed by separate dimensions of PsyCap facets. From the behavior point of view the self-efficacy, hope, and optimism these first three behaviors are responsible to make changes in the organization positively and bring change in the methods to adapt to the change in the organization. Conversely in the resilience situation, it focuses on the continuation of activities regardless of the environment (Wojtczuk-Turek & Turek, 2015).

H2: Human resource flexibility is positively related to Psychological capital.

Relationship between PsyCap and IWB

Scott and Bruce (1994) supported their stance that innovation is a multistage process with different actions and dissimilar behavior of individuals which is required on different stages. Innovative behavior involves discontinuous activities instead of clear or in order stages. Individuals can develop these behaviors at any time anywhere (Bhatnagar, Jyotsna, Mishra, Pavitra, & Gupta, 2013).

According to Bhatnagar et al. (2013), there is no published literature which had examined the impact of psychological capital on innovative work behavior. Therefore the relationship between these two variables was drawn by the individual association of psychological capital facets i.e. hope, resilience, optimism, and self-efficacy.

The employees with a high level of intrinsic motivation have high self-efficacy levels and reflect a unique type of conviction about one's own effectiveness (Bandura, 1997). However dealing with challenging situations their belief is positive that they can deal with the situation successfully (Tierney & Farmer, 2002). According to Bhatnagar et al. (2013) stated that practicing innovative work behavior requires, an individual confidence level in achieving its task, and therefore for an efficacious person will have the ability to adopt innovative work behavior.

The previous studies discover that hopeful employees had a vital role to play in any organization. Luthans et al. (2007) studied that employees with high hope are expected to be more creative and resourceful. Individuals with a high level of hope are considered independent thinkers and they defend against the insights of weakness, helplessness, irregularity of tasks, and resistance (Bhatnagar et al., 2013). Such as Zhou and George (2003) suggested that hopeful employees are more talented in innovative ideas and problem solvers such individuals try to solve the issue from different angles. The hopeful employees had more willpower to accomplish the task, independent thinker, problem solver with taking substitute, and are risk-takers. Such characteristics are vital for practicing innovative work behavior (Bhatnagar et al., 2013). Optimism is a positive feeling which ponders an individual to accomplish a task. According to Abbas and Raja (2015) defines that an optimist person contributes a negative feeling for any event i.e. any undesirable event. An optimist is expected to reflect the external situations and consider other individuals responsible. This negative or peripheral source avoids lessening the effort in any situation. Luthans and Avolio et al. (2007) said in their study that the optimistic employee has a positive attitude and assumes good traits throughout his life whether in past, present, or future situations.

Positive thinking patterns are necessary for the first stage of the innovative process. Where such an individual has to diagnose the problem and generate the idea to find out the solution (Carmeli, Meitar, & Weisberg, 2006). Bhatnagar et al. (2013) suggest that a positive attitude increases more work possibilities for future activities. The optimistic attitude containing positivity and constructive thinking plays a vital role in all innovative work behavior stages.

In a difficult situation resilience is the key which provides the mechanism which helps to limit or eliminate the inadequacies in an employee working and allow such employee to return to the goal-oriented activity (Avey et al., 2010). Luthans and Youssef (2007) found that employees with high resiliency have higher job satisfaction and organizational commitment and happy in their work. (F. Luthans, Avolio, et al., 2007) shows a positive relationship between employee resiliency and job performance. Resilience is a key to the positive response in different situations such as stress and taking responsibility for longer run struggles to preserve extraordinary efficiency (Yuan & Woodman, 2010). According to Bhatnagar et al. (2013), resilience is significant for practicing innovative work behavior as it gives energy and motivates a person to fight back in adverse circumstances and focus on goal achievement.

H3: Psychological capital is positively related to innovative work behavior.

Mediating role of PsyCap between HRF and IWB

In addition to the direct effect of the flexibility of human resources on innovative behavior, the role of the human resources system in supporting the innovative behavior of employees can be achieved through psychological capital as a mediator of this relationship. Studies show that according to the theories and the previous study, human flexibility has a profound effect on the innovative behavior of people. At the same time, the power of this effect is greater when the psychological capital is used as the medium of action.

For example, one of the hallmarks of psychology is self-efficacy, which is directly associated with the dimensions of behavior flexibility. The capability to be flexible is joint with self-efficacy. Self-efficacy not only makes us responsible for our actions but also motivates us and keeps us motivated and diligent in carrying out the task of doing so. The flexibility of human resources, the strength of capital psychology, can lead to the behavior of carnivores in the organization. Some studies show that human resources, skills, and resilient behaviors are expanded in employees, as they are strengthened by psychology and psychology.

Luthans and Avey (2011), investigated the effects of psychological capital on innovative performance and the findings of the study revealed that psychological capital can predict and develop the innovative behavior of employees. Bandura (1997) describes that social cognitive theory provides the basis for Psychological Capital which creates mutual relations between people, their past performance or behavior, and with the organization.

Based on the literature we accept that psychological capital is playing an intermediate role between human resource flexibility and innovative work behavior. Thus we propose the hypothesis as,

H4: Psychological capital mediates between human resource flexibility and innovative work behaviors.

Broad Problem Area

Pakistan establishes only 1% of the Global IT industry which is insufficient as compared to the need for growth and development of the IT sector in Pakistan. There are many managerial issues that Pakistani IT firms are facing. When human resource management practices are weak in an organization, there would be less transparency in the work environment, less involvement of employees in strategic decision making, when there are no training and development programs for employees, it decreases the enthusiasm of employees, and due to organizational politics, all the operations and workflow of the organization get negatively affected. Pakistan has extraordinary potential for growth and expansion, however, due to these difficulties organizations cannot use this unlimited possibility. Nowadays creativity, innovation, and keeping up with the latest trend in technology is the main requirement of the IT sector and our educational institutions fail to impart them to students (Nafees, 2019).

Many researchers highlighted the problems faced by IT companies while implementing new technology (khan and shah, 2004; kazmi2005). Some of the problems are mentioned below which affect the performance of the organization. An organization introduces Technology either in the form of software solutions or Digital infrastructure, the main challenge that is faced by the organization is cultural change. Employees usually show resistance to Technology due to disruption of the status quo. The technology brings transparency, accountability for shareholders, and visibility. The change brought due to technological advancement needs careful management of the organizational culture and organizational behavior.

There are weak human resource practices in software technologies. The work environment is not transparent. The employees of the organization are not involved in strategic decision making which later on creates issues in the firm. Employees are not properly trained and there is a great need for development programs for the employees to motivate them, to perform tasks with enthusiasm, and give their best to the organization. Organizational politics also negatively affect the operations of the organization.

Due to our poor education system, the software graduates are not skilled enough to meet the needs of the IT industry in Pakistan. The main requirement of the IT sector is innovation, creativity, and quick adaptation of the latest trends in technology. IT institutions are failed to impart these skills to the students. Information Technology Institutions and centers are behind the standard and do not develop interpersonal skills and skills which are required for the job in the IT sector (Nafees, 2019).

One of the main issues faced by the IT industry is domain knowledge, when the latest technology is installed but employees are incompetent or they don't have the adequate knowledge to operate it, the business rules become useless, or sometimes they don't even exist. Domain knowledge is very much important just like the pieces of a puzzle which are spread in different functional units. With all these disputes there is a lack of government support although the number of registered software companies in Pakistan is increasing still there is a great need for Government Grants and incentives in the IT sector. Government should intervene and provide grants and support for the IT sector. Moreover, to develop IT centers and institutions in the country, budget allocation is required.

Software companies in Pakistan are facing great difficulty in building trust with their clients both nationally and internationally because there is no proper legal Framework for E-commerce and E payment systems in our country. As the number of software houses is increasing in Pakistan, there is a great need for a regulatory framework to be designed specifically for e-commerce.

In Pakistan, the intellectual assets of IT companies are not secure. The weak law enforcement and unstable judicial system of our country have increased the challenges of the IT industry such as piracy and unlicensed usage. Although in our constitution they are many punishments for such acts but due to weak implementation criminals have never faced it.

Operational Definitions

The operational definitions of the variables are discussed as follow.

Psychological Capital

Luthans and Youssef (2007) describe Psychological Capital as a psychological growth condition of individuals. Its features include self-efficacy also known as confidence, which gives them the strength to put all the efforts and effectively accomplish tasks, positivity or optimism makes an individual look at everything positively to get success in the present as well as in the future, hope makes a person determined towards goal achievement and thinking about new ways to achieve goals, and resilience makes a person stay strong in hard times and tolerate and react to hardships towards the achievement of the goal.

Innovative Work Behavior

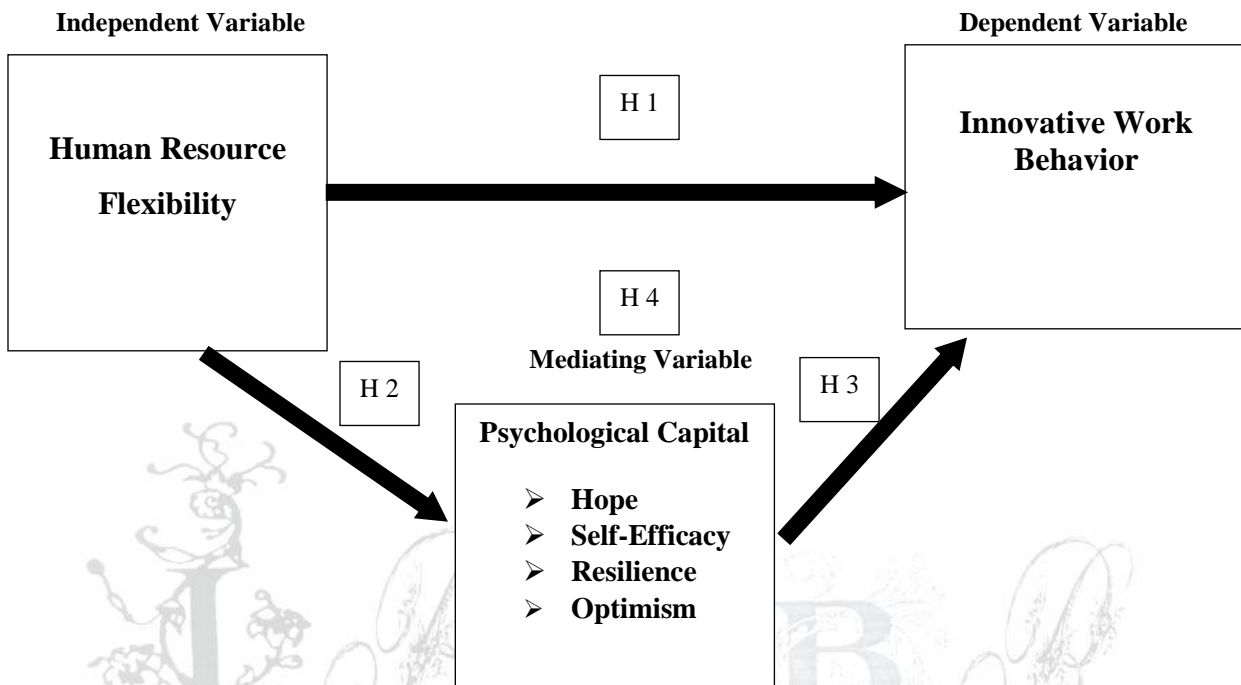
West and Farr (1989), IWB is defined here as the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization. This definition restricts innovative behavior to intentional efforts to provide beneficially novel outcomes. Profits from innovation could include both better functioning of the organization and social-psychological benefits for individual workers or groups of individuals, such as a more appropriate fit between perceived job demands and a worker's resources, increased job satisfaction, and better interpersonal communication. Following Scott and Bruce (1994), we conceive IWB in the workplace as complex behavior consisting of a set of three different behavioral tasks: idea generation, idea promotion, and idea realization.

Human Resource Flexibility

Wright and Snell (1998) theorized that HR flexibility is an internal trait or characteristic of the firm that can be addressed through three conceptual components: employee skills, employee behavior, and HR practices. Flexibility of employee skills is the "number of potential alternative uses to which employee skills can be applied" and "how individuals with different skills can be redeployed quickly". Employee behavior flexibility represents adaptable as opposed to routine behaviors; it is the extent to which employees possess a broad repertoire of behavioral scripts that can be adapted to situation-specific demands. Flexibility of HR

practices is the extent to which the firm's HR practices can be adapted and applied across a variety of situations, or across various sites or units of the firm, and the speed with which these adaptations and applications can be made.

Conceptual Framework



Research Hypothesis

Hypothesis for this research are as follows:

- H₁ Human resource flexibility is positively related to innovative work behavior.
- H₂ Human resource flexibility is positively related to Psychological capital.
- H₃ Psychological capital is positively related to innovative work behavior.
- H₄ Psychological capital mediates between human resource flexibility and innovative work behaviors.

This chapter explains the variables in details which were further used to conduct this research. Laterally with this the relationships of variables, theoretical framework, hypothesis and operational definitions were explained. Human resource flexibility is measured as a very main feature of firm flexibility as it forms the characteristics of employees (skills, attributes and behaviors) according to the different organization culture and changing environmental situations. The human resource flexibility helps the employees to encourage to develop and adapt new and effective knowledge from the environment. They are provided by the flexible changes in the structures, employment modes and plans of incentives and training (Chen & Li, 2015). The psychological capital is a high performance construct which consists of four facets hope, self-efficacy, optimism and resilience. It overall help the employee to show more positive attitude towards his work. Such as innovative work behavior is a multistage process, which has different actions & individual behaviors required respectively for different phases. Innovative work behavior is positively related to the performance of the firm. Innovative behavior of employees improves the knowledge and Technology which leads to the achievement of success. Innovative work behavior also includes the creation of

innovative products and services and value creation bringing creativity in business conditions such as the structure, psychology, and social aspects which influence the innovation process (Yonla et al. 2019).

Research Methodology

Research Type

According to Orodho (2003) research design directs the researcher data collecting, analyzing, and interpreting facts. This study is explanatory and the quantitative method is used to conduct the research.

Population of the Study

The population is a complete set of items such as a group of peoples, elements, and events that are being investigated. The population was the IT sector of Peshawar, KPK. The targeted population was the 19 companies, register with Khyber Pakhtunkhwa Information Technology Board (KPITB). The unit of analysis selected was the top and middle management which comprises 10. So this developed a total population of 190 (*Khyber Pakhtunkhwa Information Technology Board, n.d.*).

Sample and Sample Techniques

A probability sample used and the desired sample is 127. The data was collected by a simple random sampling technique. With this desired sample, 10% additional sample was used for error purposes. So the final 140 respondents' data was collected for this research (Sekaran & Bougie, 2013). In 19 companies, the total number of employees was 190 and out of 190, a sample of 127 respondents was selected as per the table provided in Sekaran and Bougie (2013) for probability sampling. With this desired sample, 10% additional sample was selected to reduce the chance of error.

Data Analysis Technique

To conduct this research, primary data was used to analyze the objectives. The data was collected from the top and middle management of IT companies of Peshawar, KPK, and Pakistan. The adopted questionnaire was used to collect responses from different employees of selected companies. The Smart PLS software was used to measure the data. The measurement and structural models were used for checking the reliability and validity of data.

To measure the data, the research used Partial Least Square (PLS) using smartPLS 3.2.4 software. The measurement model and structural model are used for the assessment of the model. PLS comparing with the other statistical tools such as SPSS, AMOS, and other available software is a better choice. For small sample sizes, it provides unbiased estimation whereas other analysis tools do not provide unbiased results. In contrast to other statistical packages, it does not need a substantial number of observations or normal distribution as input data (Hair, Risher, Sarstedt, & Ringle, 2018).

In addition, there are many reasons for choosing and using the Structural Equation Model (SEM) in this research compared to other accessible estimators. Sometimes it is implausible to look at all the variables related to broader construct recognized as latent variables. Thus SEM can interpret the latent variables into the broader estimation. SEM is an influential estimator that provides a valid description for possible multicollinearity among predictors if any (Wooldridge 2002). The data collected through a questionnaire was analyzed by PLS-SEM.

Instrumentation

According to Frankel, Kothari, and Weber (2006), data collection was done through a questionnaire, the advantage of this method is that it is less costly and less time-consuming. It is also useful in the procurement of data because the participants are not manipulated by the researcher. This research model involves one independent variable human resource flexibility and one dependent variable which is innovative work behavior with one mediating variable i.e psychological capital. All these variables have their sub-variables (facets). The questionnaire was designed accordingly with variable and sub-variables. The questionnaire was comprised of two parts. The first part holds a demographic section which consists of gender, age, working experience, education, and job title. While the other hold the 55 questions which supported the three variables.

The first variable was Innovative Work Behavior which consists of 9 items that were developed by (Janssen, 2000). A 5 point Likert scale questionnaire was used, which scale range is “1 strongly disagree” to “5 strongly agree”. Similarly, the Psychological Capital Questionnaire was measured which has 24 items, these questionnaires were developed by (F. Luthans et al., 2007) to check the nature of Psychological Capital. The 5 points Likert scale questionnaire design was used i.e. “1 strongly disagree” to “5 strongly agree”. And for measuring human resource flexibility (i.e. skill, behavior, and HR practices) a questionnaire consists of 5 points Likert scale questionnaire i.e. “1 strongly disagree” to “5 strongly agree” that was used to collect the responses from employees. This questionnaire was developed by (Bhattacharya et al., 2005).

Table No 1: Research Instrument

Variables	No of Items	Reference
Psychological Capital	24	F. Luthans et al., 2007
Innovative Work Behavior	9	Janssen, 2000
Human Resource Flexibility	22	Bhattacharya et al., 2005

Results and Analysis

Overview of the section

This section provides a complete analysis of the data collected and provides results of observations into the findings which are numerically represented to interpret the results. The study used Smart PLS 3.2.4 software for analysis and applied Partial Least Squares, Structural Equation Modelling (PLS-SEM). PLS is considered the best choice for a small sample size because of unbiased estimation. It does not require a normal distribution or a substantial number of observations. This study used two techniques, the measurement model and structural model to test the hypothesis which was recommended by the previous literature (Hair et al., 2018).

Demographic Profile

The demographics for this study includes gender, age, education, experience, and designation of supervisors and employees. The gender demographics splits the population in two streams i.e. male and female. In the table it shows ratio of female and male respondents. As we can see the largest part was male which is 85% of the population and 15% were female.

Table 2: Demographic

		Count	Column N %
Gender	Male	119	85.0%
	Female	21	15.0%
Age	22-28	90	64.3%
	29-33	41	29.3%
	34-38	9	6.4%
	39-43	0	0.0%
	44-49	0	0.0%
	Above 50	0	0.0%
Education	Bachelor	82	58.6%
	Master	38	27.1%
	MS/M.Phil	20	14.3%
	Ph.D.	0	0.0%
	Others	0	0.0%
Experience	1-5 years	98	70.0%
	6-10 years	39	27.9%
	11-15 years	3	2.1%
	more than 15 years	0	0.0%
Designation	CEO	11	7.9%
	HR Manager	5	3.6%
	Project Manager	3	2.1%
	Software Engineer	30	21.4%
	Developer	43	30.7%
	Graphic Designer	29	20.7%
	Marketing Manager	3	2.1%
	Programmer	10	7.1%
	Sales Manager	1	0.7%
	Product Specialist	1	0.7%
	Product Deployment Engineer	1	0.7%
	Technical Support Engineer	3	2.1%

The table also depicts the age section which shows the majority of the respondents are range between 22-28 with having 64.3%, 29.3% respondents were from age 29-33, and only 6.4% of respondents belong to age group of 34-38. Education is another significant demographic aspect which was consider to find out the creative avenues for achievement and innovation. Education plays a vital role in representing innovation. In table it clearly shows that most of the respondents had qualification of bachelor which comprises of 58.6% of the total respondents. As in IT field the minimum qualification is honors degree. 27.1% respondents had their master and 14.3% had their eighteen years of education MS/M.phil degree.

To collect the information from respondents regarding their experience in the relevant field, various ranges were set to recognize the respondents with their particular tenure in the companies. 70% of the respondents have 1-5 years of experience in their relevant field. 27.9% belongs to experience range from 6-10 years and only 2.1% ranges between 11-15 years. While conducting this study the data gathered from different designations such as CEO, Managers, Software engineers, Designers etc. In this study, 7.9% data was taken by CEO, 3.6% and 2.1% were HR managers and project managers, and 52.1% were software engineers and developers which also played their role in administrative and recruitment tasks, while 7.1% belongs to programmer, 0.7% are sale manager, project specialist, project deployment and 2.1% belongs to technical support engineers.

Measurement Model

The measurement model checked and test the reliability, convergent, and discriminant validity for all the constructs. Hair and Kuppelwieser (2014), suggested that the composite reliability should be greater than 0.7 and the value of average variance extracted exceeds 0.5 for all the constructs. If the values are above the describe values then there is sufficient convergent validity. Similarly, Fornell & Larcker (1981) said, the average variance extracted for each construct should be higher than the correlation with all other variables.

Table 3: Construct Reliability and Validity

Construct	CA	rho_A	CR	AVE
IWB	0.913	0.92	0.929	0.595
PsyCap	0.905	0.91	0.921	0.516
HRF	0.918	0.92	0.93	0.506

Note: IWB = Innovative Work Behavior, PsyCap = Psychological Capital, HRF = Human Resource Flexibility, CA = Cronbach’s Alpha, CR = Composite Reliability, AVE = Average Variance Extraced

Table 3 shows the construct reliability and validity. Composite reliability, factors loading and AVE was used to access the convergent validity. The composite reliability indicates the construct values ranged from 0.92 to 0.93, which exceeds the recommended value which is 0.7 so there is a convergent validity. In this table, the value of the average variance extracted exceeds the recommended value which is 0.5. The value of average variance extracted (AVE) was in the range of 0.51 to 0.59 which indicates convergent validity results are satisfactory.

Table 4: Fornell-Larcker Criterion

	IWB	PsyCap	HRF
IWB	0.771		
PsyCap	0.815	0.719	
HRF	0.783	0.82	0.712

Note: IWB = Innovative Work Behavior, PsyCap = Psychological Capital, HRF = Human Resource Flexibility

Table 4 shows the Fornell-Larcker Criterion. To calculate the measurement model, discriminant validity was used. Discriminant validity shows the degree to which a construct is different or distinct from its other counterparts (Hair et al., 2014). Discriminant validity is examined by squared correlations between the construct and the variance extracted for the construct. The discriminant validity can be assessed by the values in diagonal should be greater than all the values in the respective row and column (Hair et al., 2014). Table 4 does not shows the diagonal values are greater than the others therefore we check the HTMT for discriminant validity. Moreover, discriminant validity has also been proved with the HTMT 0.90 criterion as all the values reported in Table 4 are below 0.90. These findings are further elaborated through the graph as shown in Figure.

Table 5: Discriminant Validity (HTMT 0.90 Criterion)

	IWB	PsyCap	HRF
IWB			
PsyCap	0.882		
HRF	0.823	0.876	

Note: IWB = Innovative Work Behavior, PsyCap = Psychological Capital, HRF = Human Resource Flexibility

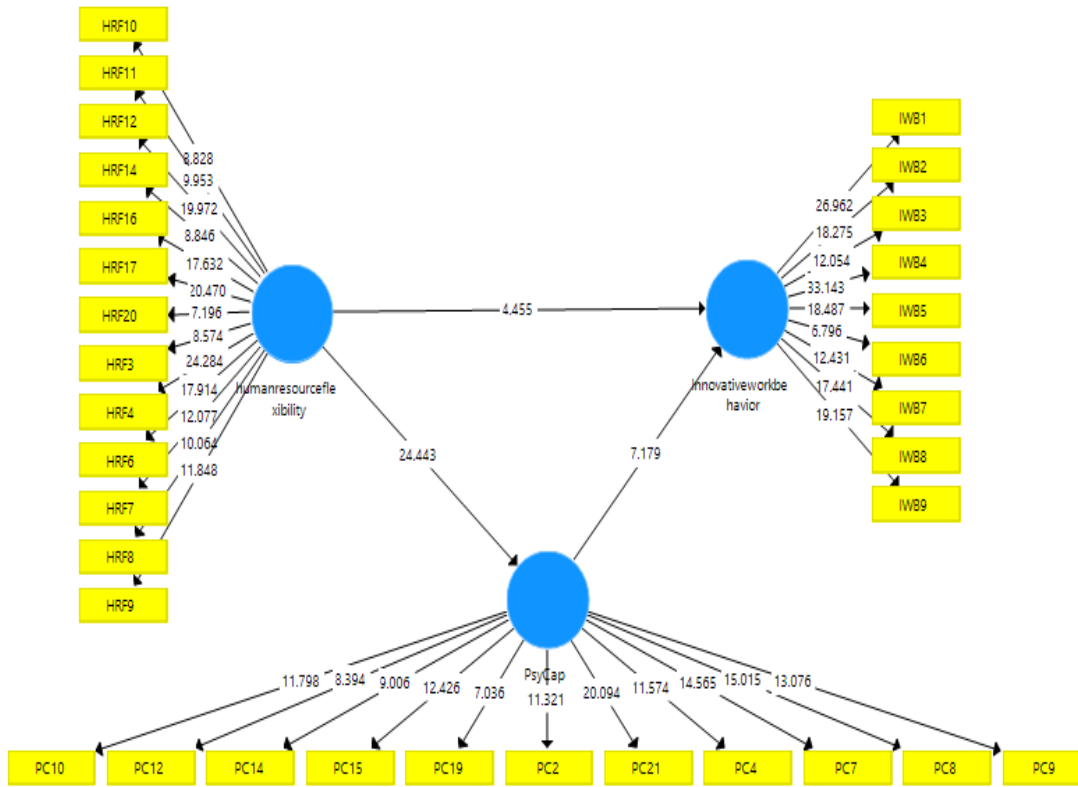


Figure 2: Measurement Model

Structural Model

The Structural model is used for testing the hypothesis. The structural model involves evaluating the R-Square beta and corresponding t-values for each hypothesis of the study. Table 5 path coefficient and hypothesis represent the results of the structural equation model. The Structural model was used for testing the hypothesis, the bootstrapping technique was performed with a re-sampling of 500, t-statistics were calculated for the hypothesized relationships. Table 5 shows the hypothesis testing.

Table 6: Path Coefficient and Hypothesis Testing

Hypothesis	Causal Path	Beta	Sample Mean	Standard Deviation (STDEV)	T-Values	P-Values	Result
H1	PsyCap -> IWB	0.527	0.531	0.073	7.179	0	Supported
H2	HRF -> IWB	0.351	0.35	0.079	4.455	0	Supported
H3	HRF -> PsyCap	0.82	0.823	0.034	24.443	0	Supported

From the analysis, it was found that psychological capital ($\beta = 0.527, P < 0.01$) was positively related to innovative work behavior. Human resource flexibility ($\beta = 0.351, P < 0.01$) was positively related to innovative work behavior. Similarly human resource flexibility ($\beta = 0.82, P < 0.01$) is positively related to psychological capital.

Table7: Mediation

Hypothesis							Result
	Causal Path	Beta	Sample Mean	Standard Deviation (STDEV)	T-Values	P-Values	
H4	HRF -> PsyCap -> IWB	0.432	0.438	0.068	6.338	0	Supported

The mediation role of psychological capital, the indirect effect has been tested, ($\beta= 0.160$, $P < 0.01$) results are significant which indicated that there is a mediating effect of psychological capital.

Discussion and Conclusion

Discussion

The findings of the study are discussed with the set hypothesis and the acceptance of this hypothesis is proved with empirical findings of previous studies. This chapter also discusses the limitations and recommendations for future researches.

The research aims to observe the mediating role of psychological capital between human resource flexibility and innovative work behavior. The results completely supported all four hypotheses. This research extended the theoretical arguments of the previous researches on human resource flexibility with employee innovative work behavior.

Hypothesis 1: Human resource flexibility is positively related to innovative work behavior.

The findings of the study show that human resource flexibility has a significant and positive relationship with innovative work behavior which supported H1 which is consistent with the previous study (Ali et al., 2017). This indicates organizations increase their flexibility in Hrm in such a way that they expand their employee's skills, behaviors, and functioning. By this, they could adapt and deal with the changing requirements which enhance the employee's innovative work behaviors. The employees are more able to produce, promote and realize new, creative and valuable ideas.

HRF can be derived adopting the flexible HR practices and policies which facilitate employee to provide a work-life balance also provides safety and also supports positivity in an organization (Michel & Michel, 2012). Chen and Li (2015) describe that having a flexible human resource system and human capital flexibility are two main aspects of human resource flexibility. A flexible human recourse system acts as a coordination mechanism and on the other hand flexibility in human capital uses team knowledge to develop new information. It focuses on the long-term competitiveness of an organization as well as for its employees.

Employees who distinguish a wide variety of organized HR practices show higher IWB. Therefore, a wide source of human resources flexibilities enhanced the apparent desires of the organizations, higher innovative work behavior of employees contribute more to organizational success. By integrating human resource practices and HR systems helps organizations to build excellent relationships with their employees. Consequently, it influences the employee perspective which in return increases innovative work behavior (Abstein et al., 2014).

The employees can develop different skills through functional flexible strategies i.e. job rotation and teamwork. It helps to combine the knowledge and transformation in human capital. Skill flexible strategies like training, recruitment, and guiding the employees can help to increase their learning ability, they can achieve goals effectively and create enthusiasm for innovation. Behavior flexible strategies are helpful to

enhance the diversities and freedom of behavior, raise initiative, and improves the performance of the staff. These behavior flexible strategies include flexible work time, salary motivation for employees, and rational authorization.

Hypothesis 2: Human resource flexibility is positively related to psychological capital.

The relation between human resource flexibility and psychological capital was positive and significant, H2 was supported and it is consistent with the study (Esfahani & Parsa, 2017). This means if psychological capital increases the human resource flexibility also increases. While having high PsyCap in employees can do perform better in terms of skills, behavior, and function of an organization. Employees with higher flexibility strength are more practical and adopt the environment quickly. The managers involved in PsyCap have more chance in sustainable purpose and they put more efforts into HR flexibility which ultimately achieved better opportunities more easily and effectively.

HR practices flexibility shows the ability of HR practices of a firm to be adapted and applied across different situations or different sites and units of the organization, and how quickly these adaptations can be made (Bhattacharya et al., 2005), by developing flexibility of these resources employees get motivated and capacity to dedicate their efforts to exploitative and exploratory activities (Esfahani & Parsa, 2017).

Hypothesis 3: Psychological capital is positively related to innovative work behavior.

Similarly, the psychological capital has a positive and significant relationship with innovative work behavior i.e. self-efficacy, hope, optimism, and resilience which have a more influence on innovative work behavior, H3 was supported and consistent with. This shows that the individuals having high PsyCap, hold positive characteristics of self-efficacy, optimism, hope, and resilience, which increase the ways to show innovative behavior at work.

Similarly, employees having high psychological capital are more confident, hopeful, optimistic, and resilient. The researchers have mentioned that for enthusiastic innovative work behavior the individual should have trust in their capabilities. Likewise, literature defined that, employees show innovative behavior in their work when they are hopeful and having self-efficacy (confident) that their idea can benefit the organization as well as also helps them to improve their performance (Yuan & Woodman, 2010). Individuals having high self-efficacy are more confident about themselves. An optimistic individual is determined to have a positive attitude about successful ideas and a resilient in the same way is likely to express the courage to deal with difficult circumstances. Individuals having high hopes can do objective valuation of their ideas and having alternative plans to deal with any unwanted scenario.

Psychological capital has been shown to significantly affect innovation in an organization. Jafri (2012) admits that psychological capital and its four facets influence the innovative behavior of employees. It also predicts the innovative behavior of employees working in a firm. Innovative behavior is considered as a key factor in all the organizational levels for encouraging innovation further innovation also plays an essential part in organization performance to work more effectively and efficiently (Abbas & Raja, 2011). Bhatnagar et al. (2013) suggest that a positive attitude increases more work possibilities for future activities. The optimistic attitude containing positivity and constructive thinking plays a vital role in all innovative work behavior stages.

Hypothesis 4: Psychological capital mediates between human resource flexibility and innovative work behavior.

This study also shows that the mediator variable supported H4. The result supports the theoretical assumption that psychological capital is an important factor in predicting innovative behaviors in the workplace (Hsu & Chen, 2017; Wojtczuk-Turek & Turek, 2015). The mediating relationship of

psychological capital between human resource flexibility and innovative work behavior shows an indirect connection between the human resource system and individual disposal which developed through psychological capital (Wojtczuk-Turek & Turek, 2015).

The mediating variable which is psychological capital enhances human resource flexibility which leads the employee towards greater innovative work behavior. It shows that in an organization, employees with high positive characteristics i.e. psychological capital enhance the human resource flexibility by adapting the skills, behaviors, and functions, and deal with the changing environment increases innovative work behavior. The employees become more capable to generate, promote and realize ideas.

Conclusion

In the present period, while technology was developing rapidly, the importance of innovative work behavior was somewhat ignored by firms. By taking this into account the present research supports the innovative work behavior and combined with human resource flexibility which offers a comprehensive summary. This research was conducted to extend the present literature on HRF and IWB. The mediating role of PsyCap between human resource flexibility and innovative work behavior has also been demonstrated in this study. The data was collected from the IT sector of Peshawar, KPK which consists of 19 companies that were registered with KPITB. The questionnaires were circulated in these firms for the collection of data. The 140 questionnaires were distributed to find out the analysis. The Smart PLS software was used to measure the data. For checking the reliability and validity of data the measurement and structural model were used. In the literature, the study put its contribution by studying psychological capital as a mediator. Four hypotheses were developed in the context of the Peshawar IT industry to investigate the phenomenon. The results indicated H1, H2, H3, and H4 are accepted. The objectives of the study were also accomplished.

Implications

Human resource flexibility is very important for organizations. The organizations should focus more on recruiting those employees which have high psychological capital with leads towards innovative work behavior. As IT companies required more innovative work, therefore, employees having high self-efficacy, hope, optimism, and resilience can put more effort to increase the innovative behavior of the organization. Employee becomes more likely to be efficient and provide the company with his best when his talents and abilities suit the needs of the organization. Managers must take into account those people who are experienced, talented, and have high personality behaviors. Managers must maintain a balance between the interests of employees and organizational activities with people's views on work and skills. This correspondence guarantees positive results which help out in innovative work behavior.

The organization employees rely on their managers for help and motivation, the fragility and fear of coercion on employees will possibly be reduced due to uncertainty regarding innovative work behavior efforts. Employers can build the urge in employees to engage in innovative thoughts and not consider the consequences of their results. Workers are usually reluctant to talk in organizations because if the concept was unsuccessful, the initiator would be criticized and threatened. While people with high psychological capital are more motivated, energetic, and developed a positive attitude to be successive in the future and present.

Limitations

The first limitation of the study is that there are no proper IT firms in Peshawar, there is only one IT park in Peshawar which consists of 19 firms, most of which are startups having fewer employees such as 10 or 12. There are only two to three companies which have comparatively more employees such as 25 to 30

employees. But if we look at other cities such as Lahore Karachi and Islamabad, many IT parks are there and each IT firm has more than 70 employees.

The second limitation of the study was related to the sample size, as the sample size is small. In Peshawar, there are 40 IT firms but most of them are inactive, so the sample had to be selected from 19 active firms. In this way, the small sample size may not enable generalization for a large number of firms and big IT firms having a large number of more capable employees.

Third, due to COVID-19, most of the employees were working from home and there were very few employees (respondents) at the IT firm, and most of the offices were closed due to COVID-19 which was a great hurdle in data collection.

Future Directions

In future studies it might be valuable to undertake an effort to replicate the conducted analyses in order to better understand the HRF mechanism impacts over IWB, while simultaneously extending the range of examined mediators and including in the research model the individual and contextual moderators. It is also recommended that future research may need to make efforts on the comparative studies to identify and test systematically variables that could effect on innovation in IT. As the IT sector of Peshawar lacks behind in comparison with other developed cities such as Islamabad, Lahore, and Karachi. So the researcher can investigate the same model in other cities as well. Future researchers can test this relationship in different sectors such as Healthcare and education sectors. As innovation is nowadays a requirement and is very much important in these two sectors. Future researchers can also check the effect of behavioral flexibility, skill flexibility, and human resource practices flexibility on innovative work behavior individually.

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