

Impact of Collaborative Innovation Capability and Emotional Intelligence on Sustainable Innovation Performance with Mediation of Employee Burnout

Prof. Dr. Muhammad Shaukat Malik (Supervisor)

*Institute of Banking and Finance
Bahauddin Zakariya University, Multan
Iqra Mohsin (MS Scholar)*

iqramohsin1504@yahoo.com

*Institute of Banking and Finance
Bahauddin Zakariya University, Multan*

Abstract

Purpose – This study was conducted to find out the impact of emotional intelligence and collaborative innovation capability on sustainable innovation performance and to know whether the organizational culture moderates and employee burnout mediates this relationship or not.

Design/Methodology/Approach –The researcher adopted cross sectional and quantitative research design to fulfill this study's objectives. Owing to Covid-19 pandemic, online survey was conducted through questionnaire for data collection of 300 employees who are currently working in Telecom Industry of Pakistan. As a statistical tool, Smart PLS (Partial Least Square) v.3 was run by adopting the Structural Equation Modeling (SEM) to find out the direct and indirect effects among the variables while the descriptive statistics were employed by using SPSS v.20.

Findings – The proposed hypothesized relationship of this study was found supported wherein positive and significant relationships were found among organizational culture, emotional intelligence and collaborative innovation capability on sustainable innovation performance while between the sustainable innovation performance and employee burnout, a negative relationship was found.

Originality/value – Along with new dimensions and locality, the current study was a first attempt to provide the practitioners, policy makers and researchers to understand the issues of Sustainable Innovation Performance related to the

employees' Emotional Intelligence and their Collaborative Innovation Capability with the main focus of mediation role of Employee Burnout and moderating role of Organizational Culture.

Keywords: Employee Burnout, Sustainable Innovation Performance, Organizational Culture, Emotional Intelligence, Collaborative Innovation Capability

Paper type Research paper

Introduction

In view of the evolving difficulties of business activities, collaborative innovation systems have developed in recent years. By bringing various synergies, resources, technologies, skills, ideas, and new methods, collaborative innovation allow for the production of new values. This entire strategy has been described in various ways by the researchers (Cinelli, Ferraro, & Iovanella, 2019). (Cinelli et al., 2019) reported in their studies that, for the successful innovation of technology in industries, collaboration has much importance. Owing to bear various capabilities for integrating and reproducing the best information gained through multiple strategies regarding collaboration, all partners are different from each other in terms of the capabilities in all organizations. The investigators likewise demonstrated that in cooperation between various partners, they can combine and join their abilities, assets and limits and can assist with making new information. They can likewise move current information towards each other. The partners bear high level creativity and development capacities are required to react unequivocally to cultural changes. Further, this reaction depends on the partners' capacity to rapidly change, adjust and execute their information to design and make the most recent highlights of items and administrations. In addition, a high degree of collaborative and innovative functions promotes and enhances the integration of relevant data and information from various partners.

Sustainable innovation plays an important role in corporate success through which performance of an employee can also be influenced (Delmas & Pekovic, 2018; Mustafa & Nishat, 2019). Sustainable innovation performance is known as “a most advanced innovative strategy to improve the performance of the three dimensions of sustainable growth in the economy, society and the environment” (Kneipp, Gomes, Bichueti, Frizzo, & Perlin, 2019). Understanding these knowledge interactions is not only a necessary condition for environmental innovation, but also a necessary condition for social innovation. Social innovation means “services aimed at satisfying social needs

or products" (Ghisetti & Pontoni, 2015). Environmental regulations can limit the growth of companies and increase the strength and attractiveness of sustainable innovations. For example, one study confirmed that companies "face different technical and economic problems involving the interaction between different types of information and knowledge" (De Medeiros, Ribeiro, & Cortimiglia, 2014).

Numerous empirical studies (Zhang, Chen, & Sun, 2015) show that emotional intelligence is a prerequisite for employee innovation in every organization. Research shows that emotional intelligence in the construction industry correlates positively with compromise, dominance, and integration style and innovation performance. Similarly, research by (Njoku, 2020) shows that emotional intelligence and perceived stress play an important role in predicting employee engagement. Nowadays, Emotional Intelligence is seen as the key for increasing organizational engagement, improving job satisfaction, relieving pressure in the workplace, and building pressure among employees in the organization. (Nanayakkara, Wickramasinghe, & Samarasinghe, 2017) found that the non-financial performance of the organization is positively influenced by the emotional intelligence. The study further concluded that high level emotional intelligence of employees is more important for their career success and thereby accelerate company performance. Some researchers believe that employees' emotional intelligence plays a major role in the organizational structure (Deshwal, 2016). He has shown that emotional intelligence increases with education, experience, and age. When employees understand their emotions better, it has a significant impact on their performance.

Previous studies show that sustainable innovation performance and organizational culture are negatively influenced by the employee burnout which is a psychological barrier and response to stress that employees are exposed to during their shifts at work. A multidimensional concept that comprises of 3 further sub-dimensions has been found in Employee Burnout. These dimensions include emotional exhaustion, decreased personal performance and depersonalization disorder (Martínez-Monteagudo, Inglés, Granados, Aparisi, & García-Fernández, 2019). Depersonalization disorder is defined as an employee's indifferent attitude towards simply working in terms of impartiality to the feelings or reactions of customers. Emotional exhaustion or burnout is defined as the decrease in employees' emotional resources due to work demands or stress in the workplace. Reduced personal performance indicates that employees perceive a lack of progress or unsuccessful performance in the

workplace (Abdelhamied & Elbaz, 2018). Therefore, printing will not encourage sustainable innovation.

In order to develop new and innovative ideas in the company, employees must be comfort in an open environment. A relaxed and open environment can be created if companies place more value on their organizational culture (Abdi et al., 2018). A stable culture encourages employees to actively participate in decision-making as well as to bring latest progressive plans for management to improve the overall performance of a firm. The company can maintain a sustainable innovation performance in the light of previous studies. Further, when any organization's management involves its employees in various strategy-making processes, this turns them into competitive advantage for the company and the maintenance of a flexible culture in the organization.

We may need to highlight gaps through contribution of this study and to find out the impacts of collaborative innovation capability and emotional intelligence on organizational culture and the organizational sustainable innovative performance and how the employee burnout mediates these relationship in telecom sector of Pakistan.

Literature Review and Hypotheses Development

Sustainable Innovation Performance and Collaborative Innovation Capability

Innovation capability is portrayed as a capacity of an organization to improve and progress. This implies that it's the organization ability to accomplish imaginative and innovative outcomes. Especially, this infers that the capacity of an organization to produce new data and information like scholarly or learned property just as the execution of fitting data, imaginative thoughts and information decidedly to accomplish the market worth of their organization. Besides, this capacity alludes to an organization's ability to adjust, change and foster the current innovation, administrations or items and furthermore to make new advances and items. A large portion of the organizations searches to foster the advancement ability of their organization to accomplish the inventive results just as to expand the benefits of their organizations to oversee better execution on the lookout. Different researches have been conducted to examine the relationship between an organization's performance with innovative capability of its employee. These associations have perceived that for the accomplishment of the association, the term "Innovation Capability" is the basic component of an individual (Bukhamsin, 2015). Bukham's study utilized the recently inspected and created SME-based

innovative model as the source for a questionnaire of 2,088 SMEs in Northern Ireland. Results of his review uncovered that the size and classification of SME firms have impact on the managers, workers and culture, TQM/CI, innovation and information management.

Innovative development is significant for the organizations to accomplish an upper hand over the competitors which are additionally the thought process power behind the performance of the association. The dynamic capacities belonging to the Innovation performance of the organization fills in as an organization's capacity to make esteem with the creation of new administrations and items. For maintainability system, the innovation is tied in with making changes in the process of the organization that should not be noticed simply based on financial or economic point of view while undertaking the activities that are connected with the sustainability (PV & Lorsuwanarat, 2018).

According to a sustainability perspective, organizations should give every one of the vital assets to have the option to request new sustainable and long haul administrations and items, and they should likewise utilize and foster their own abilities and skills. Since this makes potential for development and improvement to accomplish the sustainability of current items, which can eventually give the organization an upper hand on competitors. As indicated by the analysts, the connection between sustainability practices and the innovative capabilities inspected is positive. Accordingly, addressing these organizations can work on their intensity and inventive capacity while supporting the sustainable development and advancement of the association. This investigation has shown that practical sustainability is turning into a significant method for assembling organizations to work on their productivity and upper hand by working on their competitor presentation in market. In accordance with the present green obligation, a few types of coordination, for example, cross-practical coordination inside the organization and outside coordination components for the production network can facilitate the connection between environment sustainability and organizational performance. Despite the fact that coordination is significant, there are moderately barely any observational investigations that inspect the intervening job of such coordination. The hypothetical model of this exploration analyzes the job of coordination. The outcomes show that the connection between organizational performance and environment sustainability is accomplished through the coordination of green creation and green stock chains (Koo et al., 2014).

These past studies have shown that the Sustainable Innovation Performance is influenced by Collaborative Innovation Capability. Therefore, this research

requires sorting out the relationship of Collaborative Innovation Capability and Sustainable Innovation Performance in the Telecom sector of Pakistan. For determining the relation thereof, the hypothesis is developed as:

H1. There is a significant relationship between Sustainable Innovation Performance of firm and Collaborative Innovation Capability of employee.

Sustainable Innovation Performance of a Firm and Emotional Intelligence of Employee

Organizational innovation is seen as an important factor in the survival of the organization. Today innovative expansion methods help to expand the world market. (Tsakalerou, 2016) describes that the basis of innovation can be an idea or an individual who creates, transmits, reacts and adapts or modifies the idea. It is important to research the factors that can encourage and encourage certain innovative behaviors in employees. Therefore, personal creativity and innovation play an important role in the development and survival of the company. In addition, various methods should be established to improve the company's employees' ability to innovate. Most studies know that motivating the company's employees to engage in entrepreneurial work and improving the organization's creativity and innovation are the keys to success. It depends on a few variables, like emotional intelligence which is viewed as a significant factor. Studies additionally show that different components of emotional intelligence likewise assume a significant part in organization innovation. The emotional intelligence is an individual's capacity to manage their own sentiments and feelings, just as the sensations of others, as a reason for connecting with others. The emotional intelligence has a significant capacity as an essential expectation of individual conduct in the working environment in organizations. The emotional intelligence is seen as the non-psychological capacity, viable capacity and capacity of workers. Thusly, individuals who control and deal with their own feelings can beat their pressing factors and pressing factors. They tracked down that, notwithstanding the impacts of general mental health batteries (GMAs) on execution; EI is additionally a significant indicator of occupational performance. The consequences of innovative work specialists at an enormous Chinese IT organization affirmed the impact of this forecast. The outcomes likewise show that one revealed IE WLEIS scale produced for Chinese respondents is more unsurprising as far as workload than the scale created by MSCEIT in the US (Yang, 2016).

In addition, (Gorji et al., 2014) have shown that emotional intelligence can help individuals solve their problems and reduces conflict between individuals.

It also support them in fulfilling their responsibilities and their work in the company. People with the highest emotional intelligence tend to satisfy and satisfy the interests of others and thereby obtain positive solutions. Therefore, it shows a preference for the company's innovation performance. Hence, it can be assumed that emotional intelligence has a significant positive impact on a firm's performance. In addition, a number of studies have shown that emotional intelligence has a significant positive influence on employee behavior and attitudes, team performance, and job performance. The results also show that employees with the highest emotional intelligence explain conflicts at a low level, which leads to a strong willingness to be creative and innovative on the part of employees.

For sustainable innovation performance of a firm, the emotional intelligence of employee should also be considered an important factor with some another service settings. Therefore, the previous studies (Santos, Wang, & Lewis, 2018) also recommended emotional intelligence for sustainable innovation performance of any organization. In order to follow this, this research aims to check the relationship of employee's emotional intelligence and firm's sustainable innovation performance. For determining the relation thereof, the hypothesis is developed as;

H2; There is a significant relationship between Sustainable Innovation Performance of a firm and employee's Emotional Intelligence.

Employee Burnout and Sustainable Innovation Performance of a Firm

(Kapusuz & Çavuş, 2019) defines burnout among employees as emotional stress that can arise in the workplace. It is depicted as a psychological, mental and different depersonalization issue, passionate depletion and diminished delight in work when individuals connect with different representatives with uncommon potential and abilities. They broke down that the term burnout is known in the area of psychology and organizational behavior. Freudenberg (1974) first utilized this term to clarify emotional and mental fatigue. Burnout is characterized as the physical and mental exhaustion of human energy which is fundamentally because of enthusiastic and relational pressure issues in the work environment. Also, "burnout" is depicted by different responses that are explicit to an individual's natural design.

(Mo & Shi, 2017) Find out that stress at work can lead to burnout. Hence, there is a direct link between a poor work environment and mental health, which is ultimately linked to one of the burnout phases. Burnout is severe corruption or a lack of interest in employee performance. The term "employee

burnout” can lead to long-term indicators for many illnesses, such as high drug and alcohol consumption, poor guarantees or warranties, low job satisfaction, performance and income, more employees and low returns. There are many causes of job burnout; the first component of burnout is “contrast on an individual level”. This includes factors based on individual weight and exhaustion such as commitments, weak identities, and the restoration of unattainable labor standards. The second factor in job burning is “the level of interpersonal communication”. This situation will develop even more in those who interact directly with customers and there will be a discrepancy between the representative's boundaries and the needs of the customers. This can be a little helpful from an authority and authority standpoint. Personal burnout is an important element that directly affects agent performance. These factors include the quality or compliance with spending in the organizations in which they all work. The final explanation for employee burnout is the many thoughts or thoughts that are sometimes referred to as “passion work”. He recommends the process of relying on the authorities to guide and control their thoughts in accordance with the rules, norms and values established by law. The use of "enthusiastic work" is particularly pronounced when individual organizations are called before workers and other partners have many repetitive conversations that bring supporters and parties together; they also need enthusiastic work and manual labor.

It is shown in above researches that the Employee Burnout influenced on Sustainable Innovation Performance. Therefore, this research requires checking the relation between Sustainable Innovation Performance and Employee Burnout in the Telecom sector of Pakistan. For determining the relation thereof, the hypothesis is developed as:

H3. There is a significant relationship between Sustainable Innovation Performance and Employee Burnout.

The relationship of Sustainable Innovation Performance with Emotional Intelligence mediated by Employee Burnout

Researchers and professionals (Zysberg, Orenshtein, Gimmon, & Robinson, 2017) studying the emotional experience of people have recently joined the theoretical framework demonstrating the ability to form possible protective factors against burnout and stress. Despite the various meanings of EQ, it is by and large acknowledged that EQ is how much individuals viably perceive, oversee and control and oversee feelings to accomplish objectives and goals and to adjust and decently oversee different issues and difficulties. Emotional

intelligence can play the role of personal resources and make emotion processing an effective and influential behavior. The capacity to appreciate people at their core, in this manner, can be something contrary to burnout or stress, which is because of the absence of compelling and delicate enthusiastic guideline and control. Past proof absolutely shows that capacity to understand anyone on a profound level is contrarily connected with employee burnout. Consequently, the ability to understand anyone on a deeper level can be a defensive element for representatives in the firm.

Employees suffering from emotional exhaustion and burnout, personal and professional problems, work pressure and role conflicts can often make managers and employees feel frustrated, frustrated and exhausted. In a challenging, demanding and challenging environment, under the current circumstances, emotional intelligence will influence the control and choice of various leadership strategies. The same results were found in another study conducted in educational institutions, which reveals that employees with high ability to understand individuals at their core were probably going to experience down-grade, low-level positions, and those instructors had higher working desires (Santos et al., 2018).

If the burnout of the employee is low, this leads to sustainable innovation. Therefore, one has to take into account the generally accepted understanding of innovation, that is, innovation means turning creative ideas and concepts into some kind of profitable inspiration and support in developing various ideas or creative skills turning their ideas into innovations. In particular, when employees are satisfied and satisfied with the growth and development of the organization, their innovative attitude is developed in the workplace (Albort-Morant et al., 2020).

Under the Employee Burnout, the above studies have recommended that the some other factors of Sustainable Innovation Performance may be utilized to investigate further. Therefore, this research supports for identifying the relation of Sustainable Innovation Performance and Employee Burnout. For determining the relation thereof, the hypothesis is developed as;

H4: The relationship between Sustainable Innovation Performance and Emotional Intelligence are mediated by Employee Burnout.

Relationship of Sustainable Innovation Performance with Employee Burnout moderated by Organizational Culture

Organizational culture is the most important part in relations to the employee burnout in any firm. Organizational culture is a term that is recently

introduced for a firm's internal employee management system. Organizational culture has become a significant part and the investigation of the management has become the most significant and basic subject in organization. The social model of an association should be appropriately arranged in an organization. The foundation of a fitting organizational culture with exceptional thought of the workers can work on the components of employee burnout in the association. In this express, the connection between the Organization and its workers decides the development of the organization. Thus, a quick or moderate development in corporate culture can influence employee burnout. Employee burnout is seen as a reaction to steady pressure or stress. Service delivery workers spend a lot of time and energy providing services and are easily affected by burnout. In the service sector, burning of jobs not only affects the health of employees, it also increases their anxiety and stress. Various organizational psychologists believe that when an organization meets the needs of employees, disabled behavior and employee behavior are reduced, thereby improving their skills and efficiency (Olynick & Li, 2020).

The studies show that each company has culture and values. Because of the culture, organization's productivity is affected. Employees need organizational culture in order to be able to carry out tasks effectively. Researchers have found that an organization's culture is much important, performs an important character for successfulness of a firm. This belongs to productivity as well as employee satisfaction. A strong corporate culture encourages employees to actively participate in the process of decision-making and thus demonstrate for creativity and creative concepts and abilities. Hence, this may be helpful for the development of firm's betterment by improving the organization's productivity. The firm has likewise developed a system that encourages employees to develop their concepts and ideas. These employees likewise enable themselves for participating in creative plans and management decisions. The courage of organizational culture shows that when an organization organizes itself through cultural values and knowledge sharing, employees are keen to find solutions to problems. A constant firm's culture may effectively stimulate innovation and innovative behavior between workers in the firm. Embedding innovative ideas in a firm is beneficial as it is an integral part of any firm. Keep the culture of innovation, traditional rules and regulations to a minimum, and create an open environment to encourage the development of creative thinking (Hahsmi & Siddiqui, 2020).

Because of the burnout of the employees, the profitability and productivity of an organization usually decrease when employees experience psychological

stress at work, their interest and physical strength decrease. Eventually, their incompetence manifests itself in the workplace. Studies have shown that the pressing factors and stressors related with the workplace that regularly lead to employee burnout incorporate ecological, social, social and character factors. The organizational culture decides the climate vanquished in the association in which people complete various exercises. Further, employees' activities and practices are molded in like manner. This issue significantly affects the association's performance. Simultaneously, the work force is without a doubt an important asset in any organization. Quite possibly the most well-known organizational issues is helpless worker management. Because of poor performance, the organization's innovation and creativity are diminishing despite a strong and integrated culture and responsive individuals. By better understanding and understanding the organizational goals and guidelines related to norms, values, and standards, employees can gain a sense of engagement and satisfaction. Hence, strong and controlled leadership can improve the enthusiasm, productivity, and organizational performance of the people in the organization. The problem is, bad management can cause burnout, weakness, and stress. The study showed that employee burnout can be predicted based on the culture, elements and factors of the organization. Other research has shown that employee burnout is linked to other aspects of corporate culture (Dimitrios & Konstantinos, 2014).

The above studies have suggested conducting the study on organizational culture. Therefore, this research objective is to analyze that how Employee Burnout and Sustainable Innovation Performance influenced by the organizational culture. For determining the relation thereof, the hypothesis is developed as;

H5: The relationship between Sustainable Innovation Performance and Employee Burnout moderated by Organizational Culture.

Methodology

All factors are standardized due to the quantitative nature of study. This dissertation used casual study approach because this study's core aim was to check the effects which are occurred by the employees' emotional intelligence and their collaborative innovation capability on sustainable innovation performance along with mediation role of employee burnout and moderating role of organizational culture.

Sample Size and Data Collection

In this study, employees of telecom industry in Pakistan were target population from which 300 respondents were conveniently selected as sample from Multan and Lahore, Pakistan. The respondents' demographic characteristics of job experience-wise, gender-wise and age-wise were examined. The data was collected and measured through five point likert scale (from 1=Strongly Agree to 5= Strongly Disagree). The questionnaire was filled by Managers, middle level employees of PTCL, Zong, Jazz, Ufone and Telenor telecom companies.

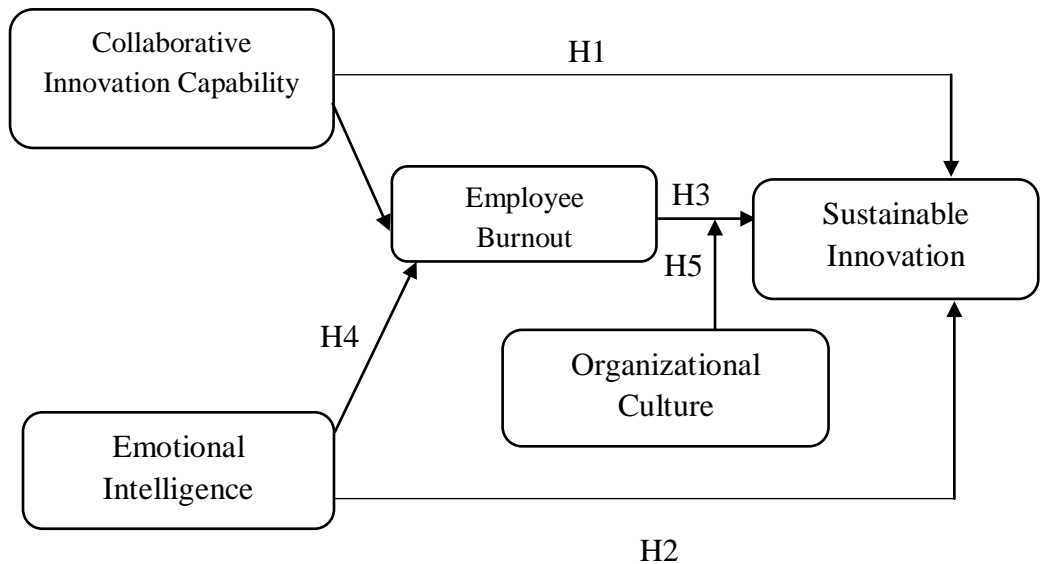


Figure 1: Hypothesized Research Model

Measurement of Collaborative Innovation Capability

CIC scale was developed by (Blomqvist, K., & Levy, J., 2006). This scale consists on 10-items to determine the effects of Communication of Information and knowledge, empowerment of staff, organizational platform, innovative strategies, collective enterprises, encourage and support, corporate strategy, culture, organizational, technical, marketing, systems and management on collaborative innovation capability of employees.

Measurement of Emotional Intelligence

EI scale was developed by (Hakim, A. et al., 2020). This scale also consists on 10-items to determine a person's psychological capability to understand,

control and handle his/her own behavior, emotions, anger, and achieve his/her set/assigned goals.

Measurement of Sustainable Innovation Performance

SIP scale was developed by (Shen, J., Sha, Z., & Wu, Y. J., 2020). This scale consists on 5-items to determine how much a firm emphasizes to reduce environmental pollution, prioritize resource efficiency in production, and focus on social responsibility, product sustainability and building a sustainable business for its Sustainable Innovation Performance.

Measurement of Employee Burnout

EB scale was developed by (Wu, G., Hu, Z., & Zheng, J., 2019). This scale consists on 7-items to determine how an employee has intention for burnout due to feel physically and mentally exhausted, less interested and less enthusiastic towards workplace.

Measurement of Organizational Culture

OC scale was developed by (Aranki, D. H., Suifan, T. S., & Sweis, R. J., 2019). This scale consists on 13-items to determine how a firm encourage and motivate employees with innovative organizational climate, Open dialogues, exchange of opinions and support to initiate new ideas.

Data Analysis

In order to analyze the collected data, Smart PLS v.3 software was run in this study. Usually, Smart PLS software is used by the researchers for checking Structural Equation Modeling (SEM) on variance based that is also defined as Partial Least Squares (PLS) in path modeling method. Therefore, SEM model technique was run to generate relevant results. Meanwhile, Hypothesis testing, Q Square Mediation Test, R Square, Correlation, Regression Analysis, SEM Model, Factor Loading, Reliability and Validity and Model Assessment are utilized to test the validity and reliability of questionnaire.

Results

Descriptive Analysis

This study is comprised on 300 participants whom data was encoded and inserted into statistical software (SPSS v.20) for analysis. The data was processed and descriptive frequencies of the same were brought out according to the participants' demographic statistics. The main features of respondents included gender, age and working experience as well.

Table 1: Demographic Statistics

		Frequency	Percent
Age	21-30 years	92	30.7
	31-40 years	109	36.3
	41-50 years	66	22.0
	above 50 years	33	11.0
Gender	Male	231	76.7
	Female	69	23.3
Work Experience	Less than 1 year	31	10.3
	1-4 years	78	26.0
	4-10 years	99	33.0
	above 10 years	92	30.7
Total		300	100.0

Table 1 shows the demographic information regarding the participants of this study in which majority of respondents are; 31-40 years old (109, 36.3%), male (231, 76.6%) and 4-10 years experienced are (99, 33%) among the 300 respondents. These demographic results reveal that telecom sector of Pakistan has less female, fresh and non-experienced work force which can play a vital role for better sustainable innovation performance of these organizations if hired not only due to these particular demographic features but also on the basis of artificial intelligence.

Assessment of Structural Equation Model (SEM)

In SEM, two types of Models (Measurement Model and Structural Model) are used on the data collection based to find out demographic statistics, data reliability and validity as well as the nature of relationships which actually exists among variables (J. Hair et al., 2011). SEM is, further, described by J. Hair et al., (2011) that constructs of study variables are examined in means of their validity and reliability in form of factor loadings. Various types of analysis are performed through SEM technique i.e. factor analysis, linear regression, covariance analysis, mediating and moderating tests through path analysis in Smart PLS v.3

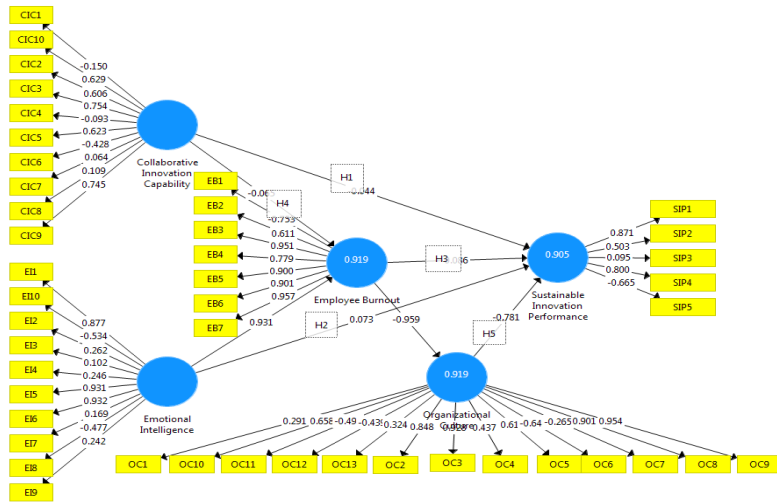


Figure 2: Factors Loading Model (The Initial Model)

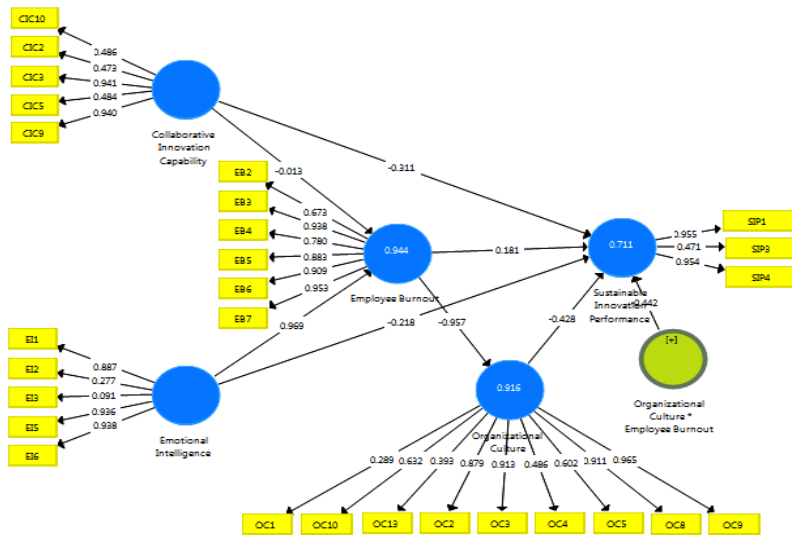


Figure.3: Structural Equation Model (Measurement Model)

Results of data reliability of all variables are shown in measurement model (Figure 3). According to Gefen and Straub, (2005) items having value higher than 0.7 or (<0.6) are counted valid and reliable mathematically while the items having low factor exposure are not valid therefore, they must be dropped in order to get valid results. Therefore, 17 items (OC12, OC11, OC7, OC6, SIP5, SIP2, EB1, EI10, EI9, EI8, EI7, EI4, CIC8, CIC7, CIC6, CIC4, CIC1) are

dropped in measurement model. After modified the required changes in the initial model, Structural Equation Model (Measurement Model) is shown as above in Fig.3.

Reliability and Validity Analysis

In order to evaluate the model either the collected data is reliable and valid or not, Reliability and Validity Analysis was run in Smart PLS. Questionnaire was comprised on 48 items against which total 300 responses were collected and entered into SmartPLS. After creating initial model, internal consistency of 48-items was measured in SEM through Cronbach's Alpha, rho_A, Average Variance Extracted (AVE) and Composite Reliability which is shown in Table 2 below for Factor Loadings and Table 3 for variables' scales.

Table 2: Factor Loadings, Reliability and Validity

“Variables”	“Items”	“Loadings”	“Cronbach's Alpha”	“rho_A”	“Composite Reliability”	“Average Variance Extracted (AVE)”
Collaborative Innovation capability	CIC3	0.837	0.830	0.872	0.859	0.552
	CIC9	0.837				
Employee Burnout	EB3	0.938	0.927	0.936	0.945	0.743
	EB4	0.779				
	EB5	0.883				
	EB6	0.911				
	EB7	0.953				
Emotional Intelligence	EI1	0.882	0.707	0.916	0.804	0.525
	EI5	0.941				
	EI6	0.942				
Organizational Culture	OC2	0.881	0.861	0.932	0.895	0.512
	OC3	0.912				
	OC8	0.907				
	OC9	0.967				

Sustainable Innovation Performance	SIP1	0.942	0.792	0.888	0.875	0.708
	SIP4	0.927				

Under the estimation of Data Reliability and Validity, Table 2 and Table 3 below show that all the scores of factors' loadings fulfill the conditions for model internal consistency >0.5 . Hence, the reliability and validity of the present data is proved.

Table 3: Reliability of Scales

Scales	“Cronbach's Alpha”	“rho_A”	“Composite Reliability”	“Average Variance Extracted (AVE)”
CIC	0.830	0.872	0.859	0.552
EB	0.927	0.936	0.945	0.743
EI	0.708	0.917	0.805	0.526
OC	0.860	0.93	0.893	0.511
SIP	0.79	0.889	0.876	0.709

Table 4: Discriminant Validity

	CIC	EI	EB	OC	SIP
CIC	<i>0.742</i>				
EI	-0.177	<i>0.725</i>			
EB	-0.192	0.671	<i>0.862</i>		
OC	0.195	-0.925	-0.956	<i>0.715</i>	
SIP	-0.422	0.712	0.802	-0.702	<i>0.806</i>

Note: Values in Italic represent Square-root of AVE.

In SEM, Fornell-Larcker criterion is used to test Discriminant Validity. Table 4 indicates that values of all 5-scales are above (<0.7) score and met the minimum discriminant Validity.

Table 5: HTMT Ratio

	CIC	EI	EB	OC	SIP
CIC					
EI	0.261				
EB	0.187	1.077			
OC	0.317	1.032	1.012		
SIP	0.264	0.75	0.738	0.865	

CIC	0.447	0.734	0.778	0.764	0.618
-----	-------	-------	-------	-------	-------

In Table 5, the HTMT ratios are show for discriminant reliability of all 5-scales which must be below 0.90 as shown all scores are below the required ration in studies (Henseler et al., 2015).

Table 6: Model Fit Summary

	Saturated Model	Estimated Model
SRMR	0.067	0.074
d_ULS	0.22	0.65
d_G	0.15	0.31
Chi-Square	172.98	580.76
NFI	0.188	0.351

Table 6 shows the Measurement Model Fitness. According to Henseler, et al. 2014, a model has good fit when SRMR is less than .08. Values of Estimated Model and Saturated Model are 0.074 and 0.067 respectively that are below the standard numbers which means the Model is fit.

Table 7: Determination Coefficient of R²

“Endogenous Variable”	“R ² ”	“Adjusted R ² ”	“Accuracy Level”
CIC	0.387	0.381	Moderation
EI	0.226	0.224	Moderation
EB	0.395	0.391	Moderation

Key: EB=Employee Burnout, EI= Emotional Intelligence; CIC= Collaborative Innovation Capability

In order to assess the strength between variables, the subsequent procedure to check R2 values was adopted for completion of the structural equation model. Procedure of R2 measures the values from 0 to 1 in which higher value means more accuracy for prediction. In table 7, scores of R2 0.387, 0.395 and 0.226 indicated the effect as strong, moderate and weak respectively. This table also reveals that EB (R2 = 0391) is predicting the SIP 39%, EI (R2 = 0.224) is predicting SIP 22% and CIC (R2 = 0.381) is predicting SIP 38%.

Structural Equation Modeling

To assess proposed paths and hypotheses, correlation has been performed through SEM Model in which the total, direct and indirect effects of independent and mediating variables have been computed on dependent variable of the study (Figure 3 and Table 8 and Table 9).

Table 8: Path Coefficients for Direct Relationship of H1, H2 and H3

“Hypothesis”	“Original Sample (O)”	“Sample Mean (M)”	“Standard Deviation (STDEV)”	“T Statistics (O/STDEV)”	“P Values”
OC Moderates EB-> SIP	0.402	0.013	0.051	4.555	0.000
EB Mediates EI -> SIP	0.427	0.022	0.054	5.654	0.013
EB -> SIP	0.434	0.114	0.065	8.552	0.032
EI -> SIP	0.205	0.007	0.074	3.541	0.014
CIC -> SIP	0.407	0.002	0.064	4.501	0.031

Table 8 reveals that relationships between all constructs of this study are significant and positive. Hypothesis of (EI -> SIP and CIC -> SIP) shows two direct relations in which the relationship is found significant and positive while in (EB Mediates EI -> SIP and OC Moderates EB-> SIP) shows two indirect hypotheses which has also significant value ($p < 0.01$) while (EB -> SIP) shows one direct hypothesis that is insignificant and (negative relationship). Hence, all hypotheses are found supported as shown through 5000 PLS bootstrapping in below Table 9 and Figure 4.

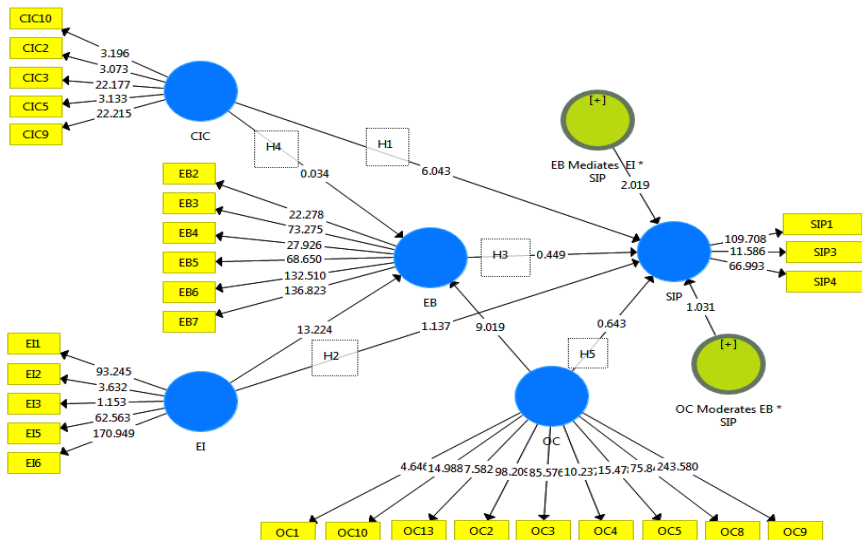


Figure 4: PLS bootstrapping Algorithm Results

Table 9: Results of Mediating and Moderating Effect for H4 and H5

“PATH”	“Path Coefficient”	“SE”	“T-Value”	“P-Value”	“Bootstrap”	
					95% LL	95% UL
EI -> EB -> SIP						
Indirect Effect	0.232	0.034	9.194	0.000	0.301	0.302
Direct Effect	0.221	0.057	3.758	0.000	0.335	0.332
Total effect	0.451	0.043	10.287	0.000	0.546	0.543
OC -> EB -> SIP						
Indirect Effect	0.202	0.054	11.194	0.000	0.352	0.301
Direct Effect	0.293	0.062	3.798	0.000	0.322	0.315
Total effect	0.433	0.012	10.022	0.000	0.534	0.530

Key: Key: SIP= Sustainable Innovation Performance; EB=Employee Burnout; EI= Emotional Intelligence; OC= Organizational Culture

As indicated in table 9, mediating results show the H4 hypothesis for mediating effect of variable which reveals that the employee’s burnout has significant connection between EI and CIC. Indirect effects and direct effects are also shown the beta values ($\beta = 0.232$, $p < 0.01$) and ($\beta = 0.221$, $p < 0.01$) for EB respectively through which is clear that bootstrap deviation for confidence interval is higher than zero and gained 95% (UL = 0.302, LL = 0.301). These values revealed that EB mediates 51.1% of the relations among SIP and OC. Hence, H4 of this study is supported on the bases of these results. Table 9 also shows the results of the moderation effect test for moderation hypothesis H5. The results show that the organizational culture actively and clearly regulates the connection between sustainable innovation and employee burnout. The results also showed indirect effects ($\beta = 0.202$, $p < 0.01$) and direct effects ($\beta = 0.293$, $p < 0.01$) across the corporate culture. For indirect effects, the confidence interval of the bootstrap bias is greater than 95% of the zero load (LL = 0.352, UL = 0.301). Therefore, the moderate hypothesis based on the above results is supported.

Discussion

Data of 300 respondents from telecom sector of Pakistan was analyzed through SmartPLS. According to the quantitative and qualitative nature of this study, four types of analysis i.e. Reliability Analysis, Regression Analysis, Mediation Analysis and Moderation Analysis were run. Five proposed Hypothesis were found supported by the results. The findings show that organizational culture

plays its role as moderator and conquered the adverse consequences of Employee Burnout on Sustainable Innovation Performance. The outcomes show that if an open conversation climate and discussions among the workers are energized by the association which eventually diminishes dissatisfaction, inconvenience and aims in representatives to leave the associations. Moreover, representatives consistently lean toward a very much refined authoritative climate to work for sustainable innovative performance. Since in inventive culture, formal guidelines and rules may be kept up with on least even out and convey an open climate to empower the imaginative contemplations to develop.

The connection between an association's Sustainable Innovation Performance and Emotional Intelligence is significantly mediated by Employee Burnout. Therefore, it can be explored that the employees' creative demeanor instead of work will create if the workers are fulfilled and content with hierarchical development and advancement. Employee Burnout proportion is constantly affected upon the connection between emotional intelligence of worker and an association's sustainable Innovation Performance. A negative relationship was found between employee burnout and sustainable innovation performance that shows organizations are not interested to take the innovative steps to break down the ratio of employee burnout which has a negative impact on Sustainable Innovation Performance of their firms. In addition, organization that stress may lead to burnout in the workplace if innovative environment is not provided by the organization to the employees.

Results show that employee emotional intelligence largely affects employee performance by reducing employee burnout. Negative emotions and indolence, unnecessary and ineffective emotions decrease an individual's personal sense of achievement and these accomplishments are work related behaviors that cause them to burn out of the organizations. Hence, it is more necessary to improve employees' emotional intelligence in order to decrease their intentions to leave the company. Emotional intelligence has positive effects on sustainable innovation performance of the company. That means organizations that develop values based on the emotional needs of the employees are based perform well in to sustain innovation.

CIC has a positive relation with EI and SIP of firms which means all aspects (knowledge, organization, human factors) of the collaborative innovation functions of employees have a significant positive impact on the company's sustainable innovation performance. The business innovation functions affect the overall success of the company as the goal is inconsistent with the organization's policies and visions. By sharing basic skills, resources

and risks, collaborative organization can handle more complex tasks and responsibilities.

Conclusion

The main purpose of this examination was to find the major determinants of the organization's sustainable innovation performance, collaborative innovation performance, emotional intelligence, employee burnout and organizational culture to explore the intervention of employee burnout as well as emotional intelligence. The survey is cross-sectional, quantitative and includes the opinions of 300 employees currently working in the telecommunications industry in Pakistan. Information was collected through closed-ended questionnaires via an online survey and the data was analyzed via SPSS V.20 and SmartPLS V.3. The results show that there is a significant positive correlation between organizationally sustainable innovation performance, collaborative innovation performance and employee emotional intelligence, while employee burnout is negatively and significantly related to organizationally sustainable innovation performance. Furthermore, the results show that the autonomy factors of this investigation, in particular the ability for collaborative innovation and emotional intelligence, are the main components of an organization's sustainable innovation performance. They are transmitted through employee burnout, and the association between sustained innovation performance and employee burnout is negative. It can be seen through inspection that employee burnout is positively related to employee rotation rate such that excessive employee burnout leads to decreased job satisfaction and job satisfaction. This study was cross-sectional and quantitative, and therefore needed to focus more on a subjective and longitudinal study program that would strengthen the results. As this study covers the telecoms industry, different industries with similar factors should be examined to explore a cross-association horizon and partially sustained innovation capability. The study was also limited to workers in Lahore and Multan-Pakistan and analysis was done only on sustainable innovation performance of the organization and related factors. While this examination might be Pakistan's first endeavor, it was difficult to cover everything simultaneously and there are consistently gaps in any investigation. In this manner, it tends to be intriguing as a future objective to add further methodologies. Further, this inquiry can be stretched out to different locales. Get-together information will be the hardest and most significant downside of this exploration.

Practical Implications

- Managing employee retention surveys can help companies reduce employee burnout, and given the many demographic and geographic factors that influence employee behavior, it may be helpful to conduct research as part of future research.
- It is necessary to examine strategies to reduce the organization's revenues and expenses.
- Organizations must also create a positive work environment. A review of the literature reveals that there is little research on the innovation policies that organizations employ to reduce burnout and improve employee intelligence and performance.
- Fewer exchanges are planned between company employees and relationships between managers need to be strengthened to improve day-to-day operations, social relationships and employee participation.
- Companies need strategies to motivate employees, emotional intelligence, collaborative skills for innovation and a corporate culture to increase corporate productivity.
- There are fewer strategies and plans for companies to use survey results to implement strategies.
- The lack of storage methods can have a significant impact on an organization.
- Pakistani companies are building industries but are not actively using new innovations and methods. Because of this, they cannot link organizational performance to employee training.
- Learning how to develop innovation strategies is crucial for companies new to the telecommunications sector in Pakistan.
- All t-test scores were low, indicating insufficient understanding of emotional intelligence, organizational culture, and employee performance. HR managers in organizations need to focus not only on technical knowledge, skills and competencies, but also on recruiting people with emotional intelligence.
- Specifically, an emotional intelligence test must be carried out during recruitment.
- In Pakistan, the telecom sector has implemented innovative strategies and developments, however this is also program based. This means that employees' emotional intelligence and collaborative innovation functions are unaware.

Theoretical Implications

This study's findings has added to the institutional organizational theory (Meyer & Rowan, 1977) literature by providing important insights on the influences of external factors in original constructs of this theory. The study results revealed that that Emotional Intelligence (EI) and Collaborative Innovation Capability (CIC) have strong influences on the fundamental factors of this theory; Sustainable Innovation Performance (SIP), Organizational Culture (OC) and Employee Burnout (EB). They jointly explained 84% of the total variance of SIP, OC and EB. Also, results found that, EI had significant positive effect on SIP and OC. These indicated that both EI and CIC are the two dominant external factors that influence Employee Burnout behaviour. Similar to prior researches, the study results revealed EI significant effect on EB and CIC's significant effect on OC. Therefore all these two external factors are found to be important and considerable factors that influence Employees' intentions and behaviour. These finding supports the results of (Hakim, A. et al., 2020) where they reported that the collaborative innovation capabilities, emotional intelligence and organizational culture, have a significant positive influence on the sustainable innovation performance and organizational culture. Supporting existing research reported strong relationships among company's sustainable performance, emotions, burnout of employees, organizational culture, employee burnout and emotional intelligence. These findings support the theoretical claim of (Meyer & Rowan, 1977) that future research based on institutional organizational theory must address how external variables affect original constructs of institutional organizational theory model. This study contributes to the institutional organizational theory based model with literature by demonstrating the significant effects of external variables that are salient in determining emotional intelligence of employees toward sustainable Innovation Performance of an organization.

References

- Abdelhamied, H., & Elbaz, A. (2018). Burnout in tourism and hospitality SMEs: The moderating role of organizational commitment. *International Journal of Heritage, Tourism and Hospitality*, 12(2), 66-82.
- Abdi, K., Mardani, A., Senin, A. A., Tupenaite, L., Naimaviciene, J., Kanapeckiene, L., & Kutut, V. (2018). The effect of knowledge management, organizational culture and organizational learning on

- innovation in automotive industry. *Journal of business economics and management*, 19(1), 1-19.
- Cinelli, M., Ferraro, G., & Iovanella, A. (2019). Network processes for collaborative innovation. *International Journal of Entrepreneurship and Small Business*, 36(4), 430-452.
- De Medeiros, J. F., Ribeiro, J. L. D., & Cortimiglia, M. N. (2014). Success factors for environmentally sustainable product innovation: a systematic literature review. *Journal of Cleaner Production*, 65, 76-86.
- Delmas, M. A., & Pekovic, S. (2018). Corporate sustainable innovation and employee behavior. *Journal of business ethics*, 150(4), 1071-1088.
- Deshwal, P. (2016). Impact of emotional intelligence on organizational performance. *International Journal of Advanced Research in Management and Social Sciences*, 5(1), 173-182.
- Ghisetti, C., & Pontoni, F. (2015). Investigating policy and R&D effects on environmental innovation: A meta-analysis. *Ecological Economics*, 118, 57-66.
- Kneipp, J. M., Gomes, C. M., Bichueti, R. S., Frizzo, K., & Perlin, A. P. (2019). Sustainable innovation practices and their relationship with the performance of industrial companies. *Revista de Gestão*.
- Martínez-Monteaquedo, M. C., Inglés, C. J., Granados, L., Aparisi, D., & García-Fernández, J. M. (2019). Trait emotional intelligence profiles, burnout, anxiety, depression, and stress in secondary education teachers. *Personality and Individual Differences*, 142, 53-61.
- Mustafa, A. R., & Nishat, M. (2019). Dynamics of Social Protection in Context of Structural and Institutional Performances: A Disaggregate Analysis for Pakistan. *Business & Economic Review*, 11(1), 31-54.
- Nanayakkara, S., Wickramasinghe, V., & Samarasinghe, G. (2017). *Emotional intelligence, technology strategy and firm's non-financial performance*. Paper presented at the 2017 Moratuwa Engineering Research Conference (MERCon).
- Njoku, E. C. (2020). EMOTIONAL INTELLIGENCE AND PERCEIVED JOB STRESS AS DETERMINANTS OF ORGANIZATIONAL COMMITMENT AMONG FUEL DISPENSERS IN OWERRI. *Journal of Professional Counselling and Psychotherapy Research*, 3(1).
- PV, G. K., & Lorsuwannarat, T. (2018). The Determinants to Foster Innovation Performance from a Sustainable Development Perspective. *Thai Journal of Public Administration*, 16(1), 127-127.

- Santos, A., Wang, W., & Lewis, J. (2018). Emotional intelligence and career decision-making difficulties: The mediating role of career decision self-efficacy. *Journal of Vocational Behavior, 107*, 295-309.
- Zhang, S. J., Chen, Y. Q., & Sun, H. (2015). Emotional intelligence, conflict management styles, and innovation performance: An empirical study of Chinese employees. *International Journal of Conflict Management*.
- Zysberg, L., Orenshtein, C., Gimmon, E., & Robinson, R. (2017). Emotional intelligence, personality, stress, and burnout among educators. *International Journal of Stress Management, 24*(S1), 122.