

An Examination of Technological Innovation Change in Employees Performance in the Context of Post-Pandemic Recovery in the Islamic Banking: The case of Pakistan

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Abstract

This paper analyzed how technology innovation with regard to employee performance in Islamic banks during the COVID-19 pandemic and to what extent it has been influenced. The data were collected from banks that has adopted the progression of technology. The researcher analyzed the dimension of technology innovation that enhances individual performance and also puts into perspective the role played by job satisfaction, work-life balance and burnout. Students got questionnaires on social media, showing them to 225 respondents with a 35-year average work experience. PLS-SEM, which is a software application in the Smart PLS 3, was utilized for the data analysis. The data exposed a high correlation between improvements in technology and improvement in bank employee performance. Research showed that technology innovation adoption was correlated with increased job satisfaction, better work-life balance, less burnout, and the ultimate result, employees performance improvement. This study has in mind features linked to the banking industry and they include the effects of COVID-19 pandemic. Some of the mediating features are however new.

Keywords: Technology innovation; Job satisfaction; Work-life balance; Burnout; Performance

Introduction

The COVID-19 outbreak which took place in China in December 2019 and eventually spread globally is one of the most widely spread diseases all over the world and deeply affected all the sectors. Academicians and policymakers have been continuously searching for the effective ways that can maximize its alleviation. Of all industries, the financial sector of the

global economy has been most affected, having to bear a great portion of the impact this sector experienced both directly and indirectly in the everyday life of people. This is especially notable that the authors have stressed in academic papers like Banna et al. (2022).

While it is clear that the pandemic is here to stay and impacts multiple facets of life including people, planet, and profit, it is still largely unknown to what extent it has affected the aforementioned aspects, as seen in Ashraf (2020) studies. Social distance, lockdowns, and quarantine are among the measures being used to curb the epidemic globally. This has resulted in such economic and social disruptions as Atkeson (2020) writes.

The community is currently experiencing such situations that has led organisations to the implementation of work-from-home (WFH) arrangements where about 1.25 million workers from 3,788 organisations are working from home (Yudianto and Nurpratama, 2021). The pandemic-triggered business closure has caused the most severe recession in the last many decades, affecting the tourism, manufacturing, sports, recreation, and, most of all, banking sectors. What makes the fact that banks, which is used by millions of people for their everyday financial transactions, even worse is that they also have been the subject of many problems, as pointed out by Banna and Alam (2020). The aim of this study is to investigate how technology advancement that is going to play a key role in the performance of the employees in the Islamic banking sector of Pakistan during the recovery from covid-19. The foundation for achieving this aim is a theoretical framework that is built on social influence theory (Fulk, 1993) and literature on social constructionism and sense-making (Claussen et al., 2019, Luckmann and Berger, 1991, Weick and Weick, 1995, Weick, 2012).

The research indicates the conflicting workers' views and application of technology and digitalisation. It does a comparative study of other organizational and technical contexts. For example these include technology uptake and usage across various generational groups. On top of that, the collected empirical data will contribute to the existing research on individual resilience, employee well-being and coping mechanism of the business operations. Innovative banking technologies are a catalyst for financial inclusion and easing of banking processes through smart on-line access to financial services using the internet-connected electronic devices, such as smartphones, laptops, tablets etc. (Manyika et al., 2016, Gabor and Brooks, 2020). The pandemic that hindered physical movement and emphasized the digital financial infrastructure (DFI) for the banking sector of course, was the COVID-19. While this situation may be challenging for some banks, it also presents a unique

opportunity for financial institutions to undergo a complete digital transformation that has been observed in other parts of the world (Ellis, 2020). Islamic banks have demonstrated they have the capacity to be innovatory in their attempts to improve the service delivery both for clients and for workers in their operations, in the fight against the pandemic.

These changed conditions have underlined the fact that workers must acquire new skills for using technological innovations in order to be successful in their jobs. According to the technological improvements used by the Islamic banks, the employees should be assisted with work and they may be able to perform better at their work. Technology at the same time was an important factor in getting employees communicated and in improving working processes, especially when jobs were moved to online and work-from-home (WFH) platforms (Yudianto and Nurpratama, 2021). Nevertheless, the teleworking system resulted in problems since employees had to juggle work and home errands, specifically with having their children schooling online. It was also harder to maintain work-life balance and the chances of burnout were more; I realized this when the lines between work and personal time were blurred.

Being technology-dependent at WFH gave rise to stress related to technology termed as techno stress (Stefanie et al., 2020). The fact that exhaustion and burnout have a great influence on the job performance (Greenberg and Baron, 2008, Stefanie et al., 2020) makes the impact of both factors on the employees severe. As a result, the transition of work to remote work reduced the face-to-face interactions and chances of being socially isolated, which might have affected employee job satisfaction (Stefanie et al., 2020). The study has generated new insights on the impacts of technology on productivity of workers in the context of Pakistan's post-pandemic recovery, highlighting the problems and opportunities that are associated with the advancements.

The investigation is divided into six distinct parts. The first section, called "Literature Review," is devoted to the literature review of the previous studies on the problem. The "Theoretical Framework" part determines the theoretical framework applied in the study. The "Data and Methodology" section illustrates the data sources and model parameters that have been utilized in the research. The "Comprehension of Empirical Results and Analysis" section is to show the outcomes of the empirical analysis. The "Conclusion and Policy Implications" part of the paper is the final one, and it consists of the summarization of the findings and the discussion of the policy consequences.

Literature Review

Schumpeter pointed out the distinction between innovation and invention which he termed as the very first finding of a new item or a process. On the other hand, the terms may be used as the synonyms of technological change that may be applied for ways that a new product is introduced in the market. Innovation, in this context, means either a new product or its stage in its lifespan, a process that blends creation, application, and implementation, as well as the technical, socio-political, and socio-political changes. It is called as continuous, radical, or disrupted, respectively, depending on whether it comes into being from or outside the mainstream and whether they make the existing technologies or procedures unserviceable.

Theoretical background

This research presents the Constraint-Induced Innovation Theory (Silber, 1983), stating that Financial Institution (FI) has to implement financial innovation that increases their profit which is linked to employees' performance. The Theory of Restricted Innovation, which shed light on microeconomic financial innovation and reminds that innovation is very important even in hard times, such as in those where technology innovation (TI) became a dominant idea but because it helps to reduce transaction costs and to use data effectively. The perception of future job insecurities and the anxiety of being made redundant as a result of the lockdown due to the COVID-19 pandemic may lead to people suffering from a negative mental state, hence affecting their financial wellness (Halbesleben et al., 2014).

Employee performance and financial innovation are inextricably related, which is the key of bank profitability. This could lead to being disconnected and emotionally numb in the workplace for the employees which might cause depression. Digital banking, constituting online banking, mobile banking, and bank agencies as the main means of operation, facilitates profitability by reducing process costs. In the perspective of Ciner (2019), performance of employees is how well they fulfill their work responsibilities and the tasks. Also, in the same way as the case with Ezeanyim and Ufoaroh (2019), there is a presence of skills and capabilities which are stable in a short run interval, thus influencing performance.

Efficiency is a measure of employee's performance that indicates the level of effort in performing the task. Taghipour and Dejban (2013) assert the performance is the extent of how someone gets something done in accordance with his abilities and goals. As far as the success is concerned, it is being measured by the ability to realize the set objectives. According to Ndulue and Ekechukwu (2016), performance is the expression of an individual

or a business's talents and skills in the course of a specific situation. These skills and abilities remain relatively steady in the short term and are firmly tied to the employee's job. We can define performance as the success of completing tasks performed by people in organisations or companies to realize their goals and reduce losses. It illustrates capability, commitment and ability of people or group to work as agreed and in the right time. Because of the pandemic, the aims and earlier findings mentioned, the authors would like to study how technological innovation and the perceived risk of unemployment affect an employee's performance. This effect is embodied in variables such as job satisfaction, work-life balance, and burnout, which become essential for the Islamic banking sector in Pakistan.

Hypothesis Development

Information Technology

The progress of technology is deliverable through the combination of facts and novel relationships among them. The development of technology occurring at progressively higher speed has a significant role in company success (Martinez-Caro et al., 2020). The link between employees' productivity and technological advancements is a two-way street. Internal progress, which depends on staff capabilities (Pavitt, 1991), leads to technological advancements, and, in turn, technological progress increases the employees' performance (Alam and Murad, 2020, Song et al., 2019, Dnishev and Alzhanova, 2016). In case the tech is used in an efficient way and with the help of other resources and ethically, the productivity and performance would rise (Singh et al., 2019). According to the findings of Sweis (2010), enhancing innovation is a major factor in the satisfaction of employees and in the overall employee fulfilment. The banks increase their IT innovation capability as an essential instrument for improved innovation output, which, in turn, has a positive impact on employee satisfaction (Yaw Obeng and Boachie, 2018).

The organizations that value modernization must place human resource management systems that use technologies to create an effective work environment in priority (Ratna and Kaur, 2016). In tandem with the way employees evaluate their company's innovations (Sockel et al., 2004), employee satisfaction increases. The study done by Ratna and Kaur (2016) proved that technology may play a significant role in job satisfaction and performance of employees. Solution of technological innovations, which are driven by new technologies that help the employees to complete their assigned tasks within the stipulated timelines, have a fundamental influence on their job satisfaction. Fast pace of technology development

leads to new concepts that result in improved performance of the company (Martinez-Caro et al., 2020). The internal progress, which arises from employees skills and abilities, is a driver of technological advancement (Pavitt, 1991) as it is an evidence that we are walking in the right direction of technological progress and performance (Alam and Murad, 2020, Song et al., 2019, Dnishev and Alzhanova, 2016).

Implementing technology allows quick information transfer, which helps in producing an effective management system (Khanam et al., 2017, Sriyakul et al., 2019, Theresia Dwi Hastuti, 2018). Based on the theoretical perspective stated above about how Technology Innovation affects employee performance, we can propose the following hypothesis: Based on the theoretical perspective stated above about how Technology Innovation affects employee performance, we can propose the following hypothesis:

H₁: Innovative technology has a positive influence on the performance of employees and thus a significant correlation is seen.

Job Satisfaction

Job satisfaction can be viewed as an internal personal metric because it is a subjective experience determined by how employees feel about their work, the extent to which they are fulfilled given their expectations, and their own perception of what is fair and deserved (Hu et al., 2022). Satisfaction at work is negotiated by employer-employee interactions, current pay conditions, career advancement opportunities, and relationships with colleagues (Aristana et al., 2022). Such features are often measured and then some weighting is applied to get an overall job satisfaction score (Granziera and Perera, 2019). In addition, the job satisfaction determines the degree to which one is motivated to do their tasks or not, the extent to which they are productive and their level of engagement with work because it also shows how employees' needs are satisfied.

Sutrisno et al. (2020) pinpoints salary, job security, advancement possibilities, management quality, working conditions (such as facilities, ventilation, parking space, and communication), and social aspects of the workplace among the various variables that determine job satisfaction. As per the opinion of Awan and Asghar (2014), the euphoria of employees at the banks is one of the most important motors of success in the banking industry, which leads to better engagement, lower attrition rates, and superior organisation results. Social exchange theory suggests that contented employees will be more likely to react with positive behaviour towards the organization, thus this will benefit it Aselage and

Eisenberger (2003). Moreover, studies establish a causal or correlation relationship between managers' job satisfaction and the way they act, think and feel, and this in turn leads to the same outcomes in both the individual and organisational levels.

Various research suggests that job satisfaction as well as motivation are related positively. Staempfli and Lamarche (2020) puts that job satisfaction being derived from the match of job characteristics with personal attributes that if an individual is satisfied with the aspects that are supported in the workplace and discontented otherwise. Organizational culture as reported by Staempfli and Lamarche (2020) influences individuals to align their values and attitudes with those of the organization which leads to performance. In Yang et al. (2019), it is also the restriction or organization that might have an adverse effect on the effectiveness of the employees, but the individual performance is also influenced by the team or production line peers. Syamsudirman et al. (2019) conclude that job motivation has a positive effect on employee performance; thus, motivation is a determinant factor of performance of employees. Staempfli and Lamarche (2020), as well, proves this to be the case as it illustrates the effect of motivation on performance. Based on the theoretical perspective on how job happiness influences employee performance, we can propose the following hypothesis: Based on the theoretical perspective on how job happiness influences employee performance, we can propose the following hypothesis:

H₂: The relationship between the job satisfaction and the employees' performance is pretty strong and positive.

Work-life balance

Technology advancements are undeniably an integral part of facilitating workers' work-life balance that affects employee performance (Egbuta Olive et al., 2019). Work-life balance means spending a reasonable amount of time to suit one's needs in the workplace and personal life, which results in a balance rather than focusing entirely on work tasks. According to Parkes and Langford (2008), work-life balance portrays the ability of an individual to give attention to his or her work, family, and other activities outside work and accepting the responsibility of these duties. Lockwood (2003) think that the work-life balance is the ratio between one's professional and personal life. Job-life balance for workers, in turn, is nothing more but deciding how to arrange a work schedule so not to jeopardize the commitments in personal life. In essence, work-life balance seeks to ensure a

harmonising state between the job-related tasks and the personal life, thereby reducing conflicts arising from organisational pressures and individual potentials.

When people are in alignment with their job and the duties that it involves, they experience much more balance and contentment both in their professional as well as personal lives. New technologies make employees work faster and more productively, so the possibility of working remotely (such as working from home) or being prepared (for instance, preparing presentations or reports on mobile devices) out of the office is increasing. Nevertheless, the job may sometimes make the boundaries between work and personal life unclear, and this could create challenges when it comes to shutting off the work-related worries (Ratna, 2016). According to Fazili and Khan (2017) it is technological development that disrupts the work-life balance. As a result of Al-Saidi (2015) discovered that in work-life balance modern technology enables employees to do better. As an example, the workplace satisfaction is significantly enhanced by technology innovations as the burnout rates are lowered. Salanova and Schaufeli (2000) claim to see in the organizational response to technical innovations a reduction of burnout. Ratna and Kaur (2016) points out that the innovation technology, working life balance and burnout tend to play an important role in the performance of employees.

Technological competition is increasing as banks and banking competitors are simultaneously working on new technologies research and market exploration. This brings to the forefront the decisive influence of technology on banking future (Kotoroi, 2015). The information technology innovation comes into being as a new product or an improved one. It may deal with the creation, processing, storage, security, or exchange of electronic data. It can be achieved via computer systems, networks, storage devices, and other physically oriented processes which are triggered by market values or political policies. Work satisfaction, following the definitions offered by Ndulue and Ekechukwu (2016) and Cranny et al. (1992), can be described as a psychological condition of employees when they evaluate their job tasks and understand if they meet their expectations and ideals. Employees experience the feeling of being satisfied when they perceive their jobs to be supportive in their journey and reflect their values (Ezeanyim and Ufoaroh, 2019). What was reported by Handayani et al. (2021) as work-life balance is characterized by competently carrying out your professional tasks and also having the chance to enjoy what you do at home, ending the

work-family conflict and allowing you to gain the support of your family or of your personal growth.

Another term which has grown in popularity and importance is work-life balance. Greenhaus et al. (2003) define this as a harmonious blend of work and home activities in which individuals feel content and balanced in both professional and personal domains. Using these theoretical perspectives on how Technology Innovation affects employee performance, we may build the following hypothesis: Using these theoretical perspectives on how Technology Innovation affects employee performance, we may build the following hypothesis:

H₃: That is, there is a significant and good correlation between Work-Life Balance and Employee Performance.

Burnout

A burnout can be thought of as a multifaced disease that includes symptoms of emotional exhaustion, depersonalization, and decrease in personal accomplishment. Emotional exhaustion is represented by emotional fatigue and emptiness, whereas depersonalisation (or cynicism) is experienced as the feelings of indifferentiation from work activities and a lack of accomplishment that workers perceive themselves as incompetent and without achievement (Schaufeli and Greenglass, 2001). Burnout consists of two interconnected components: lack of involvement and psychological burnout (Demerouti et al., 2005).

The mental strains brought forth by continuous emotional pressures are the so-called mental exhaustion and are manifest on several levels as (1) psychological burnout with its signs of low energy levels, chronic fatigue, and susceptibility, (2) emotional exhaustion with its symptoms of helplessness and hopelessness, and (3) cognitive burnout with its characteristics such as negative attitudes towards oneself, job, and life. Along with this, technology has the ability to reduce the strain of certain jobs that commonly led to job burnout. Salanova and Schaufeli (2000) suggest that increases in the number of technical breakthroughs can be among the factors that help eliminate burnout. Based on this theoretical perspective on how technology innovation affects employee performance, we can make the following hypothesis:Based on this theoretical perspective on how technology innovation affects employee performance, we can make the following hypothesis:

H₄: Burnout is likely to be unfavourable and to have a significant correlation with the employee's performance.

Conceptual Framework:

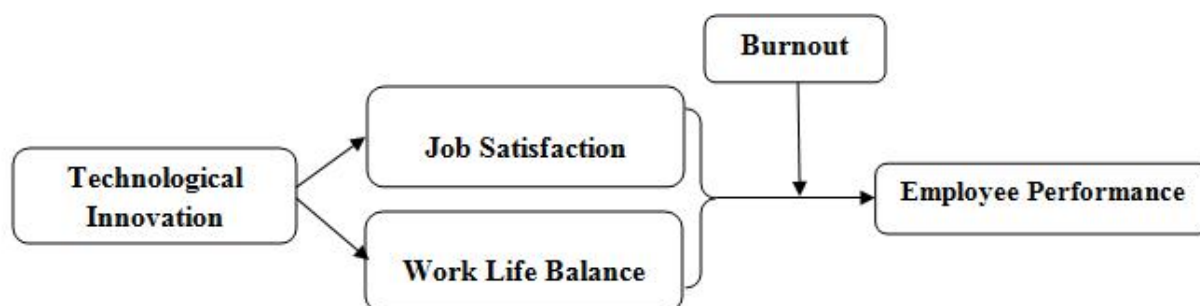


Fig.1; The Model is developed by the Authors

Methods:

Sample design and data collection.

The study is centered on the security of the job for the personnel of Islamic bank in Pakistan with the focus being on the COVID-19 situation. The research utilized a cross-sectional research method to determine the impact of technological innovations on employer satisfaction, work-life balance, and job burnout which consequently affect employee performance. The job market included employees of Islamic banks with no less than the level of a technical college and working at the position of junior managers to the top management. With regard to the selection of subjects, the research utilized non-probability sampling, specifically the purposive sampling strategy. From a sample size point of view, Daniel (2015) and Hair et al. (2011) have recommended that a minimum sample size of 5-10 per questionnaire indication should be taken. As the pre-tested questionnaire contained 45 indicators, the study's sample group had to include at least 225 respondents. In statistics, larger sample sizes are considered favourable and more probability of producing more robust results (Hair et al., 2011).

Questionnaire and pre-test

The scales developed for this investigation are modified from previous relevant literature. The questionnaire incorporated a Likert Scale 5 point (from strongly agree to strongly disagree as Brown and Peterson (1994)), presented the definition of. The questionnaire was built around two sub-sections. The first questionnaire sought for socio-demographic data such as work area, class of service, age, educational attainment and grade of staff. The last part of the questionnaire dealt with the variables like technology IT innovation, work happiness, work-life balance, burnout, and employee effectiveness. Based on the systematic

review of literature, the following 14 components were focused on to establish a basis of the model framework. The construct of IT Technological Innovation was formed from the two items which are; one is derived from Sockel et al. (2004) as well as Al-Saidi (2015) by using the items which were used in earlier studies by Osman et al. (2016).

The work satisfaction variable was created by using three items, adjusted from Ratna and Kaur (2016), while the work-life balance variable was calculated through two items, adapted from Khatri and Behl (2013), Ratna and Kaur (2016), and Al-Saidi (2015). The variable burn out was assessed using two questions derived from the works of Sockel et al. (2004), Wu et al. (2019), and Rehman et al. (2015). Employee performance, however, was evaluated with the help of five modified items borrowed from the research works of Ratna and Kaur (2016), Osman et al. (2016), and Wu et al. (2019). In order to check on the content validity of scales, academics and experts in the field were asked to review the scales. Since they made the suggestion, we did minor changes to the questions to enhance their clarity and readability.

First data was obtained by distributing online questionnaires to bank employees within the Jabodetabek area, including working through it in the midst of the COVID-19 pandemic. The research has a 347 respondents that filled in the questionnaires, selected 225 for the sample after screening. Study applied Partial Least Squares (PLS) Structural Equation Modelling (SEM) method to explore complex, simultaneous, and interdependent relationship between variables. PLS-SEM was selected because it is able to model complex relationships, it is the best model to use when the goal is to predict and the model accuracy is important, it has the most stable estimates with sample size, it provides a clear estimate of latent variable scores, and PLS-SEM is the best in terms of predictive accuracy (Richie et al., 2019). The application of the PLS method led to the creation of the structural model which dealt with an employee performance factor and had several unobservable variables.

There were some endogenous latent variables included in the performance of employee and some exogenous latent variables including technology innovation, job satisfaction, work life balance and burnout that were taken into consideration and impacted the endogenous variables. PLS-SEM analysis with hypotheses testing was done using the Smart PLS 3 software programme, which provided results of inner and outer model analyses as well as hypothesis testing.

Results and Discussions

Table 1 presents the socio-demographic elements for the 225 respondents who filled in the questionnaires that were used for analysis. We wrote these questions for the purpose of dividing respondents into groups that are relevant to the study as well as obtaining data that is consistent with the study's objectives.

Table 1:

Socio-demographic characteristics of the respondents

Characteristics	Number	%age
Age		
20-30	123	54
31-40	102	46
Last education		
Associate degree	9	4
Bachelor's degree	189	84
Master's degree	20	9
Doctoral degree	7	3
Position level		

Source: Author Calculated

Reliability and Validity Test:

The main issue in research is validity and reliability of the measures because they determine the quality and accuracy of the obtained results. Reproducibility deals with the stability of a measure, while validity is related to the aptness of a measure for a subject it intends to assess (Middleton, 2019). In this study, validity was assessed using SmartPLS 3 with appropriate indicators; the valid threshold was an average variance extracted (AVE) of 0.5 and greater for each model. In the PLS-SEM framework, the reliability of a specific indicator is calculated with the single reliability coefficient that ranges from 0 to 1; the higher the value, the better the reliability will be. Composite reliability refers to 0.7 as one of the most prevalent definition. In accordance with the Cronbach's alpha, 0.6 is also the adequate criterion for the exploratory research. For this research to be valid, the reliability must be more than 0.7 and Cronbach alpha above 0.6.

Table 2:

Descriptive Statistics

Characteristics	N	Mean	Minimum	Maximum	Std. Deviation
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Technological Innovation	225	8.5	4	10	1.282
Job Satisfaction	225	10.56	5	15	2.072
Work-Life Balance	225	7.9	3	10	0.83
Burnout	225	6.03	2	10	1.426
Performance	225	19.22	3	25	3.038

Source: Author Calculated

Table 2 is the output of the analysis of all the valid variables, done using a sample size of 225. Technical innovation generally has the data ranging from 4 to 10, with average standing at 8.40 as well as standard deviation standing at 1.282. Satisfaction in job scores range between 4 and 15, having a mean standing at 11.77 as well as a standard deviation standing at 2.072. Balance of work and life ratings were scored on a scale of three to ten having average standing at 7.08 as well as standard deviation standing at 1.426. Individuals have burnout scores that range from 2 to 10, with an average of 6.20 and a standard deviation of 1.830. The data on the performance has a range from 5 to 25; having a mean standing at 19.59 as well as standard deviation standing at 3.308. These two figures demonstrate mean values are more compared to standard deviation values, this indicates that the data is almost uniform and in other words, that the data has low variability.

The following table is the table 3 which shows outputs from analysis of validity andreliability. With respect to column of factor loadings, every indicator is greater comparee to the 0.6 threshold and this shows that all items are valid. "The AVE column too has values more than 0.5, thus indicating convergence." Regarding the reliability, all factors on both colomns of Cronbach's Alpha as well as Composite dependability have values higher compared to minimum standardswhich indicates every indicator is reliable.

Table3:

Reliability and Validity Test

Variable	N	Cronbach's Alpha	Composite Reliability
Technological Innovation	225	0.749	0.888
Job Satisfaction	225	0.754	0.859
Work-Life Balance	225	0.754	0.859
Burnout	225	0.681	0.854
Performance	225	0.918	0.939

Source: Author Calculated

In table 4 we show the hypothesis' results, including the relation between the negative and the positive variables in the Original sample column. T-statistic column of above table presents the degree of these correlations and also relates the P-values of these correlations.

Table4:

Hypothesis test

Variable	N	T-Statistics	P-Values
H1:	225	8.760	0.000
H2:	225	9.851	0.000
H3:	225	0.321	0.859
H4:	225	6.681	0.000
H5:	225	5.631	0.365

Source: Author Calculated

As table 4 below presents, the hypothesis findings are set out below. It is shown that the most of respondents have the positive relation between technological innovation and job satisfaction (H1), and work-life balance (H2). These results are in fact accord with the previous studies revealing that technological innovation increases employee satisfaction and work life balance (Yaw Obeng and Boachie, 2018, Fazili and Khan, 2017). Nonetheless, the data are proven to have a negative yet insignificant correlation with technology and burnout (H3) that corroborate with Knani (2013) statement that new technology can lower burnout. Question H4 and H5 are depicted with the table showing that there is a strong positive correlation between job happiness and work-life balance and performance.

In addition, these outcomes conform to other studies that have shown that when employees are contented and there is harmony between their work and the life outside, the productivity level is higher (Tabassum and Gupta, 2016). On the opposite side, however, burnout has a small but positive impact on performance (H5). However, the same level of detachment or delay in making a decision among employees in relation to physical exhaustion during the epidemic didn't find a notable effect on their performance. The viewpoint expressed here is reinforced by the fact that employees were more efficient and their performance improved when they started their careers during the pandemic.

This research explores how technology innovation lift the job satisfaction, work-life balance and employee performance. Research has also demonstrated the successful implementation of IT innovation as a way of improving employee performance, most

especially during the pandemic. According to the data, there is the positive connection between the level of tech innovation and the level of job satisfaction, which makes employees give the examples of the technologies that ease remote work as the most important factors of their job satisfaction. Besides, there are also positive effects of a technological advance in terms of work-life balance. Employees who have benefited from technical improvements are reported to be more satisfied with their work and to have a higher quality of life.

Nonetheless, the question of burnout's potentially negative effects on mental health, which entail fatigue and sadness, two conditions that have been proven to have a negative impact on technological creation, still remains. This supports my own prior research, as I had also found that new technology comes with higher expectations of employees, emotional exhaustion and reduced job satisfaction. Contrary to job dissatisfaction, a study conducted on employees during the COVID-19 pandemic has shown that a positive relationship exists between job satisfaction and performance, where the employees feel a sense of comfort and pride in their work in spite of the challenges posed by the pandemic. Work-life balance also has significantly good impact on work performance and career development because of the reason that employees report better tasks accomplishment and personal time management, mainly during the pandemic. It was indicated that improved work performance is the result of burnout, but it was not statistically significant in this study. The fatigued workers at work did not affect their performance at all. It seems that the pandemic had no noteworthy influence on it. Using the data, Yaw Obeng and Boachie (2018) as well as Fazili and Khan (2017) theory, can be viewed as the best explanation for how technology enhances employees' levels of satisfaction and work-life balance. Besides, the study of Tabassum and Gupta (2016) also proved that happiness at work is in a positive relationship with performance while work-life balance is in the favor of higher performance, the result of Kim et al. (2017)'s study.

Conclusions

In our study, four out of six hypotheses held true. Organizational culture has been proven to be affected positively by introducing cutting edge technology at work. It leads to improvements on job satisfaction, work-life balance, and employee performance. Nevertheless, this study did not reveal any statistically meaningful associations between burnout and performance, nor did it prove a positive impact of technological innovations on the decrease of employee burnout. The last part of the findings have led industries and companies to start focusing on the redesign and implementation of banking technologies.

These technologies will not only ease the lives of customers during their activities, but also employees' tasks through expediting their work, especially taking into account the pandemic. Provision of technology tools such as online learning platforms must be ensured for the employees to perform their duties effectively in the hard times.

Also, organisations can innovate technological options which facilitate more flexible working hours and help employees resolve the issue of finding a balance at work and home. Employees would be able to handle the conflicting tasks of the job and home life if they were equipped with tools to enable efficient time management and task completion. Through this approach, work satisfaction, balanced work-life, and ultimately the performance of the organization can be boosted. Companies should be required to create policies governing the effect of technology and set an example by following them as well. This research shows the privileges that arise as a result of technological innovation in terms of employee happiness and work-life balance. Employee satisfaction coupled with an appropriate work-life balance is an indispensable factor for productivity. As such, their performance increases to a very high level. These, in turn, have an effect on company's performance and, consequently, on its accomplishment of business objectives.

Organizations can implement some measures such as flexible working hours, employees competitions or games, and give rewards like door prizes for those who meet their job key performance indicators (KPIs) through technology to get better employee satisfaction and work-life balance. Such research showed that such training courses can pour into employee moral, self-confidence, desire to take on new tasks and the ambition to innovate. Additionally to that, employee recognition, including awarding, is also vital in this respect. Nevertheless, it should be taken into account that this research is done in Pakistani bank employees only and it is conducted during the COVID-19 pandemic. Consequently, this may create some pitfalls in generalization of the results to other social groups or businesses far outside the study area. Perspectives of workers and their views on technological progressions may not be the same amongst non-banking industries or zones where the study does not specifically cover.

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Appendix

SURVEY QUESTIONNAIRE

Dear Respondent!

I am a PhD student in Superior University, Pakistan, conducting research: An examination of Technological Innovation change in Employees Performance in the context of post-pandemic recovery in the Islamic Banking Market Leading Countries. The questionnaire solicits your opinions and experiences regarding Technological Innovation. Your response will be kept confidential, and you will never be identified. Your participation is entirely voluntary, and you may withdraw at any time without incurring any penalties. Please respond to the queries below to the best of your ability. We appreciate your participation. Your participation is highly appreciated. Thank you for your response.

Demographic profile

Gender		Male		Female	
Educational Background	Associate degree	Bachelor	Master	MPhil	PhD
Position Level	Junior Manager	Manager	Senior Manager	Top Level Manager	CEO

Work Experience	5 years	10 years	15 years	20 years	25 years
Age Group	25-30	31-35	36-40	41-45	46-50

Variable	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Technological Innovation	Copied with changes to your core tasks.					
	Learned new skills for core tasks.					
	Innovation is a strategic priority.					
	Innovation improves teamwork.					
	Competency improved by innovation.					
	Self-discipline improved by innovation.					
	Motivated for innovation activities.					
	Performance bettered by innovation.					
	Innovation has improved performance.					
	Job Satisfaction	Efforts for job goals.				
Energy into job.						
Won't give up job easily.						
Committed after technological changes.						
Work appreciated through innovation.						
Work Life Balance	Provided all resources to work.					
	Focus on personal life after work.					
	Handle responsibilities with technology.					
Burnout	Reduced working hours by tech changes.					
	Physically and mentally exhausted.					
	Used up after work.					
	Tired facing the day's work.					
	Working all day stressful.					
	Feel like collapsing after work.					
	Less interested in work					

	overtime.					
	Less enthusiasm for work and colleagues.					
	Doubt the meaning of work.					
Employee Performance	Greater work opportunities by tech.					
	Increased productivity by new tech.					
	Improved performance by new tech.					
	Task easier and efficient by tech.					
	Commitments met on time by tech.					