

Embracing the New Normal: A Study on Employee Engagement in Pakistan's Post-Covid IT Sector

Zain Zulfiqar, Muhammad Rafay, Hammad Aslam, Muhammad Sheeraz Khalil, Muhammad Zain Ul Abedeen
NUST Business School

Abstract

Significant changes in work dynamics brought about by the COVID-19 pandemic have resulted in a widespread adoption of remote work or telework. This study examines how employee engagement is affected by remote work in Pakistani businesses, with a particular emphasis on the IT industry. The study explores several factors, such as cultural considerations, communication strategies, and the availability of support for home office setups, that impact employee engagement in remote work arrangements through interviews with IT professionals. The results underscore the significance of adjusting to novel approaches that facilitate remote work, like digital communication instruments and organized virtual gatherings. Furthermore, the study clarifies how cultural aspects play a part and how important it is to help remote teams develop a feeling of community and team success. According to the study, remote work can improve employee engagement by lowering social loafing and interdependency. There is also discussion of the study's limitations and ethical issues. In general, the study offers significant perspectives on the connection between remote work and worker satisfaction in Pakistan.

Keywords: Remote work, Employee engagement, IT professionals, Pakistan.

Introduction

Covid-19, which is considered as the century's greatest health crisis (Naseer et al., 2023) has reshaped lives in many ways. The effect of this pandemic was a global one, impacting not only health, but mobility, travel, workforce, trade and much more (Shrestha et al., 2020). To curb the spread of virus, many governments went to extreme ends and implemented lasting lockdowns called NPIs or non-pharmaceutical interventions (Camera & Gioffré, 2021).

According to the International Labor Organization (2021), in the second half of 2020, 81% of all workers were from countries where workplace closure was either recommended or required. As per the ILOs policy framework (2020), to protect the workforce, work processes should be adjusted. ILO suggested the adaptation of Telework or what is otherwise called remote work So, that employees are not exposed to the risk of coronavirus. A survey carried out in the USA by Bureau of Labor Statistics (2022) reports that in 2020 about 38% of the respondents worked from home or at least spent some of their time working from home, which is up from 24% in 2019. According to Vyas (2022), there are going to be some trends that will persist in post-covid era. Remote and hybrid work have become the 'new normal'. However, the adoption of the new normal will depend on the type of work (Dingel & Neiman, 2020). While it's hard for the hospitality and tourism sectors to adopt remote working, it seems easily adaptable to sectors like software development, banking, and financial services.

Along with globalization and advances in ICT, the rise in the trend of remote work can be attributed to the benefits it provides. Remote working is of great advantage to employees as it gives them flexibility in work hours and helps in cutting down commute cost (Flores, 2019). A survey by flexjobs (Pelta, 2020) says that remote working also provides work-life balance.

However, remote working is not without its downturns, with employees feeling isolated as there is no face-to-face interaction with other employees (Flores, 2019). Employees have also reported facing family-work conflict, which negatively impacts their work (Xiao, Becerik-Gerber, Lucas, & Roll, 2021). From a managerial perspective, there are also the challenges of monitoring employee performance, team communication issues, in-person collaborations and data security (Golden & Gajendran, 2019). In the light of all these challenges, it is hard to discern whether employees remain engaged or not.

Employee Engagement is confusing, as there is absence of universally applicable definition. Business and academic practitioners define employee engagement differently, but generally, it is related to a positive attitude

toward the organization. Engagement can be judged by different factors such as organizational citizenship Behavior, Organizational commitment, and job satisfaction (Tikare, Sreeram, & Verlekar, 2022). However, academicians define employee engagement through multiple explanations. Firstly, Robinson et al. (2017) referred to employee engagement as a “positive attitude towards the organization and its value.”

Similarly, Kahn (1990) gave his idea of employee engagement through a Need satisfying approach. These three psychological factors were identified which made employees engaged i.e. meaningfulness, safety, and availability. Overall, meaningfulness here refers to the sense of achievement involved in the job role (Mansoor & Hassan, 2016).

Moreover, another approach is the burnout antithesis produced by Maslach and Leiter (1997). In this, it was defined that burnout and engagement are two opposite phenomena. Therefore, an individual facing burnout or feeling exhausted would be less engaged in his or her role.

The previously available studies sought to answer the question of employee engagement impacted in a remote-working environment, however, they met with multiple limitations and gaps. Firstly, there was a lack of qualitative research conducted in this area which explored the universal experiences of employees working in remote-working settings after COVID-19.

Additionally, no specific industry or sector was targeted in this research; alongside this there is an absence of these studies conducted in the context of Pakistan's IT sector.

As established before, some of the industries were quick to adopt remote working models during the pandemic and the computer and IT sector was best to adapt to this type of system (Haan, 2023). Due to this and other reasons like digital globalization, the IT sector's growth increased significantly. Pakistan's IT sector showed a growth of 25.6% per annum in FY 2021-2022, with Software development and IT enabled services making up 75% of the total (PWC, 2023). The main objective of this research is to analyze how the adoption of remote working has affected employee engagement in Pakistan's IT sector domain. Additionally, this study also aims to identify the factors that contribute to effective employee engagement in a remote-working setting. Lastly, this study will briefly analyze strategies that organizations can utilize to enhance employee engagement among remotely working IT professionals of Pakistan.

The insights from this research can help the growing IT sector of Pakistan. According to Khan, 54% of the Pakistani workforce is not-engaged, while 17% is actively disengaged (2020). As per the Board of Investment Pakistan (n.d.), the number of well english speaking IT specialists in Pakistan is around 500000, and every year more than 25000 new graduates become part of this sector. Also, there are around 21 STPs and more than 20000 IT companies & call centers in Pakistan with the number increasing by the year. This study can help these professionals and organizations in implementing policies that can make employees more effective and more engaged.

In the coming sections we will investigate the existing literature on remote work, employee engagement and related factors to contextualize our research. Then we will provide the methodology, including the way in which we collected data, the characteristics of the sample and the analytical approach used. In the end we will present our findings, contemplate them, and draw certain conclusions for theory, practice, and research in the future.

Literature Review

Due to the perpetual evolution in the work arrangements over time, scholars have spent considerable time exploring the impact of remote work on employee engagement. This section will delve into the literature on adoption of remote work, implications of employee engagement for any industry and the interplay of the two, further looking into the benefits and challenges that this widely accepted working model poses to the professionals of the IT sector in Pakistan.

Remote Work

Vijaya Lakshmi et al. (2023) provide the list of different types of remote work including full time and part-time remote work, telecommuting, freelancing and contract work, Remote Work for Distributed Teams, Digital

nomadism, Remote Work for Field Employees, Remote Work on a Flexible Schedule, and Remote Work during Emergencies. Each type offers a specific set of benefits and challenges and thus are opted by organizations and individuals accordingly. This research is mostly concerned with telecommuting and related models that allow employees to work out of office space.

A study by Kramer and Kramer (2020) shows the impact of the COVID-19 pandemic on the employment situation, working from home and job mobility. Studies have shown that the adoption of remote work increased during the pandemic, and high levels of adoption are expected to be maintained beyond the emergency (Galanti, Guidetti, Mazzei, Zappalà, & Toscano, 2021). These changes were driven by the need to reduce the risk of the spread of COVID-19 and major changes in the workplace and the use of ICT to support remote work (Awada, Lucas, Becerik-Gerber, & Roll, 2021).

Employee Engagement

The concept of employee engagement is multifaceted and can be defined in several ways. Purbey (2020) defines employee engagement as the emotional and psychological commitment of an employee towards their organization, leading to their willingness to invest discretionary effort in their work. This definition emphasizes the intrinsic motivation and dedication of employees to contribute to the success of the organization. De-la-Calle-Durán and Rodríguez-Sánchez (2021) propose the 5Cs Model, which defines employee engagement as a complex interaction between cognition, connection, and contribution, leading to a sense of being supported and cared for by the organization.

Remote Work and Employee Engagement

Several remote workplace factors have been found to significantly influence employee engagement. Job autonomy, engagement, communication skills, trust in co-workers, and family-work conflict have been identified as critical factors that influence both social and technical performance in a remote work environment (Zhiqiang et al., 2021). These findings highlight the multifaceted nature of remote work and its impact on employee engagement, suggesting the need for a comprehensive approach to understanding and addressing these factors.

De Klerk et al. (2021) found that remote work during the pandemic had a negative impact on employee performance levels due to increased workload, online exposure, unemployment, and failure to adapt to new ways of working from home. This is like the findings of Adisa et al. (2021), who showed the challenges of remote work, including the lack of routines, problems and long working hours that are difficult for managers to monitor.

But remote work has also benefited employee engagement. Adekoya et al. (2022) found that leadership behavior and team effectiveness have direct and positive effects on work engagement and performance, and work effectiveness on work outcomes. In addition, remote work and videoconferencing have brought new stressors into the workplace, but workers have developed strategies to reduce the impact of these stressors (Szulc, McGregor, & Cakir, 2023).

Challenges and Opportunities of Remote Work in the IT Sector

The quantitative study by Gigig and Sangeetha (2020) dissects the experiences of professionals working remotely in the IT sector. The study suggests that where network issues, unnecessary disruptions, lack of freedom in choosing tasks, and poor communication channels pose a challenge to the workers working remotely, Enhanced Work-Life Balance, Flexible Work Arrangements and Improved Productivity Methods provide employees and organizations with great opportunities.

The study conducted in Poland's IT sector by Błaszczyk et al. (2022) shows that the perceived productivity of employees increased as they shifted to remote work and thus their preference for this model also increased.

Cultural and Contextual Factors in Pakistan

Kashif et al. (2022) conducted a study on the experiences of people working remotely in Pakistan and contrasted them with their European counterparts. The findings report that, while most of the European population was familiar with remote work, a sizable percentage of Pakistani workforce found remote work as a new and uncommon strategy.

Illiteracy, poor service quality and high tariff on the internet, censorship, and lack of proper regulations from the government have widened the already existing digital divide in Pakistan.

This digital divide has serious implications on remote work culture as more than half of the population lacks access to stable internet and other digital resources (Jamil, 2020).

Pakistan's case is also unique as the access to internet and ICT devices to women is barred by families on religious grounds. These religious restrictions have not only created a gender gap but also affect Pakistani working women in many other ways (Jamil, 2021).

The study by Mushtaque and Siddiqui (2019) reports that out of the four different types of organization cultures, market culture, which is the most dominant organization culture in Pakistan, causes high stress levels and has negative implications on employee engagement.

Best Practices and Strategies for Remote Employee Engagement

The study by Ngai et al. (2020) underscores the effects of communication strategies on public engagement on social media. It is essential for organizations to adopt similar strategies to engage remote employees effectively through various digital communication channels.

The study conducted by Adisa et al. (2021) also shows the importance of virtual team building activities among UK workers during the pandemic in fostering their sense of connectedness among remote workers. Virtual team building programs such as online team building games, virtual coffee breaks, and collaboration programs can improve employee engagement in a remote work environment. Virtual Team Building programs should also be applied by organizations in the post-covid era to keep employees engaged as they work remotely.

Hyland-Woo et al. (2021) highlight the importance of government communication strategies in the era of COVID-19. Research shows that clear, transparent, and consistent communication is key to engaging remote workers. Organizations must use information technology to keep the lines of communication open, provide regular updates, and ensure employees are informed and connected.

Knowledge Gaps and direction for Future Studies

Although the current body of research offers insightful information about how remote work affects employee engagement, there are still several unanswered questions that demand more research. Initially, it is imperative to investigate the distinct contextual elements present in Pakistan's IT industry that could impact the correlation between remote work and employee engagement. This might entail looking at organizational, technological, and cultural aspects that are particular to Pakistan.

There is also lack of research on how the economic, demographic, and political factors are reinforcing the transition to remote working culture in Pakistan.

Furthermore, longitudinal research can offer a more comprehensive comprehension of the long-term consequences of remote work on organizational dynamics, mental health, and employee engagement. Furthermore, comparative studies conducted in Pakistan's various sectors and areas can provide insightful information about the contextual differences in the effects of remote work on employee engagement.

Methodology

Research Design

Since the nature of the research is to understand the shift in employee engagement due to adoption of remote work after the pandemic in Pakistan, a qualitative approach has been used to delve into the experiences of the IT professionals working remotely by conducting semi-structured interviews to ensure rich-data collection all the while refraining from unnecessary deviations. Thus, this research is of ethnographic nature as it tries to explain the behavior of a specific group of people in a particular culture i.e. Pakistan. Due to the constraints of time and resources, participants were selected through convenience sampling from the researchers' network. For this purpose, 4 participants having a professional background in Information Technology and experience with both remote working and on-site environment were initially contacted through phone and were briefed about the

research topic. During the recruitment process it was made sure that all the candidates have prior on-site job experience in order to provide a well rounded perspective for research.

Data Collection

While half of the interviews were conducted face-to-face, others were conducted remotely via video conferencing tools to accommodate the geographical dispersion of participants. The interview guide served as the primary tool for data collection. The guide was designed to elicit insights into participants' experiences with remote work and its impact on employee engagement. We also sought the experiences of the participants with any innovative methods and their recommendations and suggestions regarding the improvement of engagement in remote environments.

Ethical Considerations

Ethical guidelines were adhered to throughout the research process. Participants were provided with informed consent forms outlining the purpose of the study, confidentiality measures, and their right to withdraw at any time without consequences. Confidentiality and anonymity of participants were maintained by assigning pseudonyms to interviewees and to any person that was referred to during the interview, ensuring that sensitive information was handled with care.

Data Analysis

Thematic analysis was employed to analyze the interview data. The interviews were first manually transcribed and then preliminary codes were assigned. Coding was done manually and initial codes were marked with the instances and descriptions from the transcriptions. Codes were iteratively refined, allowing for the extraction of meaningful insights from the data. Afterwards, the interviews were analyzed multiple times to identify recurring patterns and generate themes. A hierarchical coding framework was followed as the refined codes were then merged in to generate 5 major themes.

Themes	Frequency	Themes	Frequency
Flexibility and Work-Life Balance		Interdependence and empowerment	3
Female Responsibility	2	Leadership and Organizational Support	
Flexibility	6	Role of Leadership	3
Commute	4	No Extra Hours	1
Learn New Skills	2	Wellness holidays and allowance	1
Inclusivity	2	Difference Preference	1
Hybrid Approach	4	Hybrid Work Models	
Communication, collaboration and Cultural Factors		Hybrid Approach	4
Employee Interaction	5	Difficulty in Abrupt Transition	2
Digital Ways of Communication	7	No Extra Hours	1
Disturbance	1	Future of Remote Work in Pakistan's IT Sector	
Meeting Disruptions	5	New Hires	2
Team Cohesion	3	Internet Issue in Pakistan	1
Motivated in Ramadan	1	Future of Remote Working	5

Cultural Factors	2	E-Gaming	1
International Clients	2	Issue of Dual Employment	1

Discussion

As a result of our Thematic analysis, five major themes were identified- 1) *Flexibility and Work-life balance*; 2) *Communication, collaboration, and cultural factors*; 3) *Leadership and Organizational Support*; 4) *Hybrid Work Models*; 5) *Future of Remote working*. These themes highlighted both negative and positive aspects of remote working, additionally, they also provided suggestions for the improvement of the current remote working landscape in Pakistan's IT sector.

Flexibility and Work-life balance:

A key major benefit which nearly all the interviewees reported was Flexibility and Work-life balance. Participants reported that they had the liberty to work from anywhere and Mrs.M. (Employee at S&P Global) commented:

We have flex-timings so I can clock out when Ml (her daughter) wakes up or she needs me but then I put in those hours by working extra.

Factors like these provide personal flexibility which helps in improving the productivity of employees. In remote working, individuals are allowed to work from different locations away from office; therefore, there is democratization of opportunities. Mr.Mb (IT Specialist at Quantino) reported:

In Pakistan's IT sector, remote work has really broadened the talent pool, making it easier to include folks from all over the country. This inclusivity is fantastic, but it also means companies need to double down on engagement strategies to ensure everyone feels a part of the team.

In Work from Home, workers save time and financial resources on commuting as mentioned by Mr. T. (Employee at Systems Ltd):

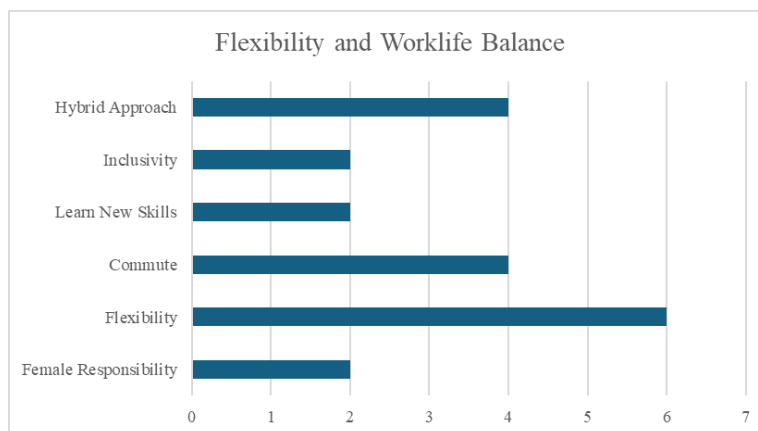
You can invest your time into learning new technology/skills simultaneously.

Additionally, remote based jobs in Pakistan are advantageous to Females who have to support their families. This in return has a positive effect on their engagement level. Mrs.M. (Employee at S&P Global) reported:

I have a daughter who is a toddler. If it's a different situation I would prefer working in the office.

Building upon this, as per the research the disturbance from their children was never a major hurdle for them performing their jobs as flex-timings allowed them to leave meetings, Mrs.M.(Employee at S&P Global) also shared:

On the positive side our organization S&P Global is a people organization and even my boss's five year old son comes in during the meeting, he sits on his lap. So our company kind of encourages it and we feel that I am valued or my family is valued so when Ml (her daughter) is crying I tend to leave the meeting or work for the time being.



Therefore, the analysis clearly shows how multiple factors revolving around flexibility helps in improving engagement levels of the employees.

Communication, Collaboration and Cultural factors

All the participants highlighted the ease of communication in on-site jobs due to physical interactions. Communications in office-based jobs allowed employees to have spontaneous conversations which promoted team-cohesion. On this note, Mr. T. (Employee at Systems Ltd) reported:

When you are working remotely you cannot chase employees to join a client meeting however in the office you can look for that employee and ask him to join the meeting.

In the same way, Mr. AB. (CEO at BuhTech) shared:

There's something irreplaceable about in-person interactions, especially for creative brainstorming and team bonding.

On the positive side, social loafing was countered in remote based jobs as everyone was now expected to bring forward their own work. Ms. M. (Employee at S&P Global), who is in a senior position shared:

The connection did break but still since the dependency of my teammates reduced it gave them an opportunity to do the tasks by themselves instead of staying dependent on me fully as they used to do it previously.

Thus, the employees, especially the seniors, were able to focus on their work. Similarly, the employees who were previously dependent on others worked by themselves, allowing them to feel accomplished.

It was also identified that with a more structured way of communication digitally the void that existed was partially covered. Employees had regular check-ins and virtual meet sessions to discuss their progress. This whole process was similar to instances faced in on-site settings. Ms. M. (Employee at S&P Global) underscored that multinational companies were already used to virtual meetings and she further shared:

The tasks are divided fully and then we have weekly or bi-weekly meetings in which we share our progress and what were the hurdles we faced and just brainstorm in general.

... Since we are a multinational organization, we are used to these types of hybrid meetings.

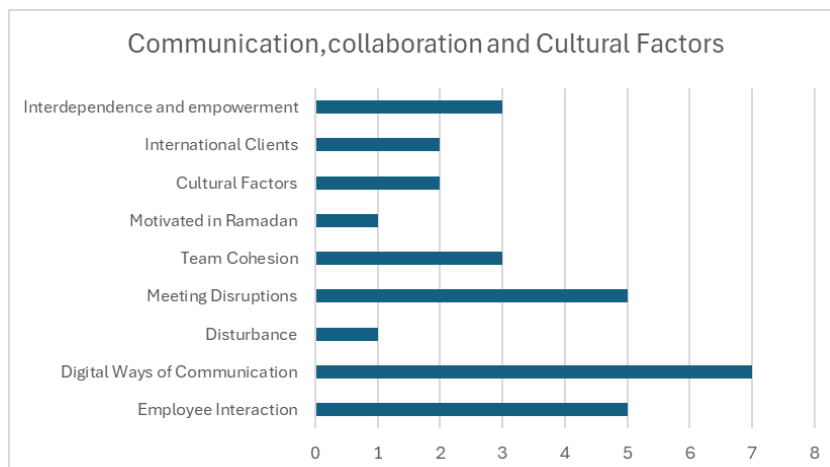
An interesting argument was raised which shared that disturbance also exists in offices as well but they are of different types. Ms. M. (Employee at S&P Global) commented:

Yeah but it also happens in the office, for instance construction going on nearby in the office or airplane flying by. So, the disturbances are different, but they still exist.

Moving on to cultural factors, Mr. T. (Employee at Systems Ltd) shared that he felt motivated working remotely in times such as Ramadan, alongside this Mr. Mb and Mr. AB. both shared the importance of collectivist culture that exists in Pakistan. Mr. AB. (CEO of BuhTech) shared:

In Pakistan, there's a strong emphasis on community and relationships, so any strategy that fosters a sense of belonging and collective achievement tends to be more effective. We make it a point to celebrate cultural and personal milestones, which helps strengthen bonds within our remote teams.

However, Mr. T. (Employee at Systems Ltd) shared that companies which work for international clients follow the client's calendar and their employees take holidays of the client; therefore, cultural factors do not play a vital role.



Leadership and Organizational Support

All the participants highlighted the importance of leadership as effective leadership helped in creating trust, empowerment and led to better communication. Leadership strategies should vary as different employees have different requirements, Mr. T. (Employee at Systems Ltd) reported that many employees work for international firms to benefit from high salaries while some employees value the working environment and usually opt for on-site jobs.

Furthermore, some companies offer wellness allowances such as monetary compensation and holidays, and according to Ms. M. (Employee at S&P Global) these factors help in keeping employees satisfied.

Although, this might not be followed in every organization but it highlights the need for providing support to employees in their home office setup. Mr. Mb (IT specialist at Quantino) and Mr. AB. (CEO of BuhTech) both shared that organizations must adapt to new strategies that are favorable to remote working such as use of digital communications tools adequately to stay in touch with the employees and allow them to feel empowered. Moreover, Mr. T. (Employee at Systems Ltd) and Ms. M. (Employee at S&P Global) shared that leniency towards the interruption caused by children of employees has a huge impact on the motivation level of employees. Ms. M. (Employee at S&P Global) highlighted:

Our company kind of encourages it and I feel that I am valued or my family is valued so when Ml (her daughter) is crying I tend to leave the meeting or work for the time being.

Hybrid Work Models

Nearly all the participants shared their preference towards a hybrid working model. Mr. T. (Employee at Systems Ltd) and Ms. M. (Employee at S&P Global) both shared that their companies were shifting to a hybrid approach, however, they are facing problems in making this transition.

In this regard Mr. T. (Employee at Systems Ltd) highlighted:

The employees in general go into their comfort zone and even if the company asks the employee to come to the office they don't.

Mr. AB. (CEO of BuhTech) also underscored the fact that hybrid approach leads to better ideation and team building skills and this model provides a healthy work life balance.

Future of Remote working

For the future of remote working in Pakistan's IT sector according to some of the participants it does look bright and beneficial but then organizations are expected to be adaptive to new ways of leadership to ensure that inclusivity is created among the workforce. However, the downsides also exist in remote based setups which hampers the future growth of remote working. Mr. T. (Employee at Systems Ltd) and Ms. M. (Employee at S&P

Global) emphasized that new entrants must initiate their careers with either hybrid approach or on-site setup in order to benefit from the development of soft skills and in future they can transition to remote working. Additionally, in Pakistan several issues exist in the internet infrastructure. Since Pakistan is a third world country, the reliability of internet connection is lacking, hindering employees from joining the meetings with stable internet connections. Mr. T. (Employee at Systems Ltd) identified:

In Pakistan there's a huge issue of the internet system and many employees prefer attending client meetings from the office because if their internet system is not efficient then the clients will report it to the higher management.

Moreover, the issue of dual employment also affects the future of remote working in Pakistan's IT sector. It was highlighted that individuals who were focused on earning higher amounts indulged in dual employment. Dual employment here refers to individuals working for different companies at different times. According to Mr. T. (Employee at Systems Ltd) dual employment is a challenge for companies as employee focus would be diverted. Lastly, an interesting point came forward which emphasizes that team cohesion can be fostered in remote working through the use of E-gaming which is a fun initiative to allow colleagues to interact with each other outside of their job domains. Mr. M. (IT specialist at Quantino) highlighted:

An innovative initiative I've seen includes virtual team-building activities, such as online escape rooms, which not only provide a fun break from work but also foster team cohesion and engagement.

The use of E-gaming widely by management of companies can enhance employee engagement and so it highlights a bright future of remote working in Pakistan's IT sector.

Conclusion

During the COVID-19 epidemic, companies and individuals have faced both possibilities and challenges as a result of the transition to remote work. Although working remotely has made it possible for better organized communication and virtual meetings, it has also brought attention to problems like the reliability of internet infrastructure and the possibility of distractions in domestic settings. The transition to remote work has also had an impact on organizational culture, communication, and teamwork, with both positive and negative outcomes. It's clear that remote work has changed how workers communicate and collaborate, opening new possibilities for personal freedom and task ownership. It has, however, also highlighted how critical it is to deal with internet infrastructure issues and preserve efficient communication and teamwork in a distant environment.

Limitations

Both the small sample size and the use of convenience sampling technique may limit the generalizability of the results to the broader population of IT professionals in Pakistan. The subjective nature of qualitative research introduces the potential for researcher bias in data interpretation.

References

- Adekoya, O. D., Adisa, T. A., & Aiyenitaju, O. (2022). Going forward: remote working in the post-COVID-19 era. *Employee Relations*, 44(6), 1410-1427. doi:<https://doi.org/10.1108/er-04-2021-0161>
- Adisa, Ajibad, T., Ogbonnaya, C., & Adekoya, a. O. (2021). Remote working and employee engagement: a qualitative study of British workers during the pandemic. *Information Technology & People*, 36(5), 1835-1850. doi:<https://doi.org/10.1108/itp-12-2020-0850>
- Awada, M., Lucas, G., Becerik-Gerber, B., & Roll, S. (2021). Working from home during the COVID-19 pandemic: Impact on office worker productivity and work experience. *Work*, 69(4), 1171-1189. doi:<https://doi.org/10.3233/wor-210301>
- Błaszczuk, M., Popović, M., Zajdel, K., & Zajdel, R. (2022). The Impact of the COVID-19 Pandemic on the Organisation of Remote Work in IT Companies. *Sustainability*, 14-20.
- BLS. (2022). *AMERICAN TIME USE SURVEY — 2021 RESULTS*. Bureau of Labor Statistics .
- Camera, G., & Gioffré, A. (2021). The economic impact of lockdowns: A theoretical assessment.

- Journal of Mathematical Economics*, Article 102552. doi:https://doi.org/10.1016/j.jmateco.2021.102552
- de Klerk, J. J., Joubert, M., & Mosca, H. F. (2021). Is working from home the new workplace panacea? Lessons from the COVID-19 pandemic for the future world of work. *SA Journal of Industrial Psychology*, 47, 257. doi:https://doi.org/10.4102/sajip.v47i0.1883
- De-la-Calle-Durán, M. C., & Rodríguez-Sánchez, J. L. (2021). Employee Engagement and Wellbeing in Times of COVID-19: A Proposal of the 5Cs Model. *International Journal of Environmental Research and Public Health/International Journal of Environmental Research and Public Health*, Article 5470. doi:https://doi.org/10.3390/ijerph18105470
- Dingel, J. I., & Neiman, B. (2020). How many jobs can be done at home? *Journal of Public Economics*, Article 104235. doi:https://doi.org/10.1016/j.jpubeco.2020.104235
- Flores, M. F. (2019). Understanding The Challenges Of Remote Working And It's Impact To Workers. *International Journal of Business Marketing and Management*, 4(11), 40-44. Retrieved from <http://ijbmm.com/paper/Nov2019/824043604.pdf>
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S., & Toscano, F. (2021). Work From Home During the COVID-19 Outbreak. *Journal of occupational and environmental medicine*, 63(7), 426-432. doi:https://doi.org/10.1097/jom.0000000000002236
- Golden, T. D., & Gajendran, R. S. (2019). Unpacking the Role of a Telecommuter's Job in Their Performance: Examining Job Complexity, Problem Solving, Interdependence, and Social Support. *Journal of Business and Psychology*, 34(1), 55-69. doi:https://doi.org/10.1007/s10869-018-9530-4
- GS, D. G., & SANGEETHA, M. J. (2020). Impact of remote working on employees in IT industry. *The journal of contemporary issues in business and government*, 26(2), 537-544.
- Haan, K. (2023). *Remote Work Statistics And Trends In 2024*. Retrieved from Forbes Advisor: <https://www.forbes.com/advisor/business/remote-work-statistics/>
- Hyland-Wood, B., Gardner, J., Leask, J., & Ecker, U. K. (2021). Toward effective government communication strategies in the era of COVID-19. *Humanities and Social Sciences Communications volume*. doi:https://doi.org/10.1057/s41599-020-00701-w
- ILO. (2020). *A policy framework for tackling the economic*. International Labor Organization . ILO. (2021). *ILO Monitor: COVID-19 and the world of work. Third edition*. International Labor Organization.
- Jamil, S. (2020). A Widening Digital Divide and Its Impacts on Existing Social Inequalities and Democracy in Pakistan. In M. Ragnedda, & A. Gladkova, *Digital Inequalities in the Global South* (pp. 59–78). Palgrave Macmillan, Cham.
- Jamil, S. (2021). From digital divide to digital inclusion: Challenges for wide-ranging digitalization in Pakistan. *Telecommunications Policy*, 45(8), Article 102206. doi:https://doi.org/10.1016/j.telpol.2021.102206
- Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *The Academy of Management Journal*, 34(4), 692–724. doi: https://doi.org/10.2307/256287
- Kashif, S., Arif, M., & Dogar, M. N. (2022). Experiences of Work from Home in Pakistan during COVID-19 . *Competitive Social Sciences Research Journal*, 496-511.
- Khan, N. A. (2020, June 5). *Employees Engagement and Augmented Learning*. PIDE Blog. Retrieved July 21, 2024, from <https://pide.org.pk/blog/employees-engagement-and-augmented-learning/>
- Kramer, A., & Kramer, K. Z. (2020). The potential impact of the Covid-19 pandemic on occupational status, work from home, and occupational mobility. *Journal of Vocational Behavior*, 119, Article 103442.
- Labor, B. o. (2020). *U.S. BUREAU OF LABOR STATISTICS*. Retrieved from <https://www.bls.gov/opub/ted/2020/unemployment-rate-rises-to-record-high-14-point-7-percent-in-april-2020.htm#:~:text=Unemployment%20rate%20rises%20to%20record%20high%2014.7%20percent%20in%20April%2020&text=The%20unemployment%20rate%20in%20April,availab>

- Leiter, M. P., & Maslach, C. (1997). The truth about burnout: How organizations cause personal stress and what to do about it. *Jossey-Bass*.
- Macey, W. H., Schneider, B., Barbera, K. M., & Young, S. A. (2011). *Employee engagement: Tools for analysis, practice, and competitive advantage*. John Wiley & Sons.
- Mansoor, F., & Hassan, Z. (2016). Factors influencing Employee Engagement: A study on a Telecommunication Network provider in Maldives. *International Journal of Accounting & Business Management*, 4(1), 50-64. doi:<https://doi.org/10.24924/ijabm/2016.04/v4.iss1/50.64>
- Merrill, J. S. (2021). COVID 19: REMOTE WORK AND EMPLOYEE ENGAGEMENT. The College of St. Scholastica ProQuest Dissertations Publishing.
- Mushtaque, T., & Siddiqui, D. A. (2019). Impact of Organizational Culture on Job Stress and Employee Engagement in Pakistan. *Social Science Research Network*. doi:<https://doi.org/10.2139/ssrn.3510644>
- Naseer, S., Khalid, S., Parveen, S., Abbass, K., Song, H., & Achim, M. V. (2023). COVID-19 outbreak: Impact on global economy. *Frontiers in Public Health*.
- Nigai, C. S., Singh, R. G., Lu, W., & Koon, A. C. (2020). Grappling With the COVID-19 Health Crisis: Content Analysis of Communication Strategies and Their Effects on Public Engagement on Social Media. *Journal of Medical Internet Research*, 22(8), Article e21360. doi:<https://doi.org/10.2196/21360>
- Pelta, R. (2020, August and September). *FlexJobs Survey: Productivity, Work-Life Balance Improves During Pandemic*. Retrieved from FlexJobs: <https://www.flexjobs.com/blog/post/survey-productivity-balance-improve-during-pandemic-remote-work/>
- Purbey, U. K. (2020). Employee Job Satisfaction and Engagement: Revitalizing a Changing Workforce in Bank of Baroda. *International Journal of Research in Human Resource Management*, 2(2), 16-18. Retrieved from <https://www.humanresourcejournal.com/article/view/40/2-2-7>
- PWC. (2023). *Unlocking Pakistan's IT potential*. Ministry of Information Technology. Retrieved from <https://moitt.gov.pk/SiteImage/Misc/files/Roadmap%20for%20IT%20ITeS%20Growth.pdf>
- Rafael Ferreira, R. P. (2021). Decision Factors for Remote Work Adoption: Advantages, Disadvantages, Driving Forces and Challenges. *Journal of Open Innovation: Technology, Market, and Complexity*, 70.
- Razzaque, R. (2022, October). Reimagining the Future of Work. *DEVELOPMENT ADVOCATE PAKISTAN*, pp. 5-6.
- Robinson, D., Perryman, S., & Hayday, S. (2017). *The Drivers of Employee Engagement*. Brighton: IES.
- Sadaf Kashif, M. A. (2022). Experiences of Work from Home in Pakistan during COVID-19. *Competitive Social Sciences Research Journal*, 496-511.
- Shrestha, N., Shad, M. Y., Ulvi, O., Khan, M. H., Karamelic-Muratovic, A., Nguyen, U.-S. D., ... Haque, U. (2020). The impact of COVID-19 on globalization. *One Health*.
- Suchismita Nayak, D. P. (2021). Potential of telecommuting for different employees in the Indian context beyond COVID-19 lockdown. *Transport Policy*, 98-110.
- Szulc, J. M., McGregor, F. L., & Cakir, E. (2023). Neurodiversity and remote work in times of crisis: lessons for HR. *Personnel Review*, 1677-1692.
- Technology - IT & IT Enabled Services Sector Profile Pakistan. (n.d.). In Board of Investment. Board of Investment. Retrieved July 21, 2024, from https://invest.gov.pk/sites/default/files/inline-files/Profile%20-%20Technology%20Sector_new.pdf?gtranslate=en
- Tikare, M., Sreeram, L., & Verlekar, S. (2022). The Study of Employee Engagement and Positive Outlook WRT Work-From-Home. *Mathematical Statistician and Engineering Applications*, 10328-10341.
- Vijaya Lakshmi, P., Rajadharani, N., Ramvignesh, S., & Ranjani, S. (2023). The Impact of Remote Work on Employee Engagement and Productivity. *International Journal of Research Publication and Reviews*, 1711-1717. Retrieved from <https://ijrpr.com/uploads/V4ISSUE8/IJRPR16266.pdf>

- Vyas, L. (2022). "New normal" at work in a post-COVID world: work–life balance and labor markets. *Policy and Society*, 155–167. doi:<https://doi.org/10.1093/polsoc/puab011>
- Xiao, Y., Becerik-Gerber, B. D., Lucas, G., & Roll, S. C. (2021). Impacts of Working From Home During COVID-19 Pandemic on Physical and Mental Well-Being of Office Workstation Users. *Journal of Occupational and Environmental Medicine*, 181-190.
- Zhiqiang, M., Khan, H. S., Chughtai, M. S., & Li, M. (2021). Re-Engineering the Human Resource Strategies Amid and Post-Pandemic Crisis: Probing into the Moderated Mediation Model of the High-Performance Work Practices and Employee's Outcomes. *Frontiers in Psychology*, 12. doi:<https://doi.org/10.3389/fpsyg.2021.710266>