

Assessment of remote work in Pakistan: Factors Contributing to Pakistan's Lag in Remote Work Adoption

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Abstract

The widespread adoption of remote work has changed the nature of traditional employment and made it more flexible and efficient. However, Pakistan is lagging behind other countries in embracing the widespread trend of remote work practices. This study looks at aspects that contribute to Pakistan's slower integration of remote work than its global counterparts in order to identify the obstacles preventing its general acceptance. Important issues include inadequate infrastructure, opposition from organizations and cultures, and policy deficiencies in the government are shown by the study. Through a comparative analysis of these results with effective models from across the world, the study offers insights into possible approaches to overcome barriers to the adoption of remote work in Pakistan. Analysis is done on the effects of lagging behind in the adoption of remote work on economic growth, and suggestions are made for government policy makers, companies, and organizations to promote a healthier and more adaptable workforce in Pakistan by easing the shift to remote work. This study enhances knowledge of the particular difficulties Pakistan has had implementing remote work practices and offers feasible solutions to these difficulties, thus advancing the socioeconomic advancement of the nation.

Keywords: Work from home, Remote work trend, Telecommuting, Technology adoption, Employee productivity, Work life balance, Employee engagement

Introduction

The phrase Work from Home (WFH), also referred to as remote work, pertains to working outside traditional office spaces. Through developments in technology and widespread internet availability, people can reach out to their colleagues and clients while at home. As Malik and Farooq (2020) underscore the positive correlation between healthy technological frameworks and the successful adoption of remote work in developing economies.

In the present-day era, convenient working from any place has made remote work the most coveted and thus frees one from the confines of a traditional office setting. This global trend has seen a gain in its popularity over the years. Unfortunately, Pakistan seems not to be following this worldwide trend and finds itself far behind others in embracing remote work opportunities. Khan and Ahmed's (2019) comparative analysis sheds light on the nuanced impact of cultural influences on workplace preferences across global workforces. Their study investigates into the complex relationship between cultural norms and individual choices, offering valuable insights into the complexities of fostering a remote work culture.

During these trying times when many companies had to adopt working remotely for their survival during lockdowns and restrictions, COVID-19 outbreak sped-up the movement towards remote work. This change of paradigm has enabled individuals to perform their professional duties comfortably from their homes allowing them to handle proper conversations with their clients as well as colleagues eased by sound technologies and internet that is everywhere at all time. As the lessons learned during the pandemic have reshaped organizational perspectives, with remote work emerging as a strategic imperative for business continuity and employee well-being, McKinsey Global Institute Report (2022).

It is probable that remote work will maintain its prominent position in our work practices in the post-COVID era. Numerous businesses have come to understand the advantages of remote work, which include better work-life balance for staff members, lower commuting expenses and times,

and more flexibility. But there are drawbacks to working remotely as well, such the absence of in-person interactions and the possibility of feeling lonely.

Types of remote work

- 1. Fully remote employees:** - Fully remote employees are individuals who work entirely from a location outside of the traditional office, often from their homes or any location of their choice. They conduct their work using digital communication tools, collaborate with colleagues virtually, and complete tasks without a physical presence in a centralized office. This type of remote work offers flexibility and autonomy to employees, eliminating the need for commuting and providing an opportunity for a better work-life balance. Gajendran, R. S., & Harrison, D. A. (2007).
- 2. Flexible job:** - This sort of distant employment allows for flexibility in terms of schedule, location, or both. Typically, a flexible job refers to a standard office-based role that allows for telecommuting options at least once per week. Flexible scheduling refers to a work arrangement that allows employees to vary their work hours, start and end times, or even compress their workweek. Kelly, E. L., & Moen, P. (2007). This provides employees with greater control over when and where they work, facilitating a better work-life balance and accommodating individual preferences. Occasionally, companies permit existing on-site staff members to shift to a flexible role depending on their tenure, job performance, and the feasibility of carrying out their tasks remotely. Conversely, certain flexible positions enable employees to mostly work remotely while requiring them to attend in-person meetings at the office on a weekly basis. In such instances, employees are typically expected to reside in the same city as the office, for e.g. Computer and IT, Sales and marketing, Healthcare, Software development, Project management, Account management, Accounting and finance, Education and training and Customer service.
- 3. Freelancing:** - A freelancer is a remote entrepreneur who frequently completes side projects and smaller-scale work. Freelancing or contract work involves individuals providing services or completing projects for organizations on a temporary or project-specific basis. Freelancers often work remotely, allowing them the flexibility to choose their projects, clients, and work locations. Chen, Y., & Horton, J. (2019). Some freelancers seek to transform their part-time venture into a primary occupation, while others opt to engage in freelancing on the side either as a personal passion project or to supplement their

income. Common fields for freelance work encompass digital marketing, social media management, consulting, design services, coding, and writing/editing.

Brief overview of the global shift towards remote work

This has been a tremendous shift globally, thanks to its transforming power that has been nurtured by improved technology, shifting work cultures and other external factors such as the Covid-19 pandemic. Remote work is not only a temporary response to a crisis but rather a fundamental restructuring of traditional work models, influencing organizational structures and workforce expectations (Remote Work Trends Observatory, 2021). The adoption of remote work was accelerated by Covid-19 pandemic across various industries, demonstrating that many job roles can be performed from home effectively (Forbes 2023). As a result, remote work is becoming more accepted by organizations and their employees as they appreciate the flexibility it provides and potential cost savings it could lead to. According to a survey carried out in 2020 in Central America including the Dominican Republic, 57% companies had no remote workers before COVID hit them. However, during the pandemic period 50% of the organizations went ahead to having 75-100% of their work forces working remotely.

Technology's role in remote work revolution

The facilitation of remote work has been significantly influenced by technology, which has provided tools for unified communication and collaboration. Video conferencing platforms like Zoom and Microsoft Teams have made virtual meetings possible, ensuring teams can stay connected. Additionally, project management tools like Asana and Trello assist in organizing and assigning tasks effectively. Employees have been allowed to securely access company resources from any location outside their office via VPNs and cloud-based applications (Frobes 2023). Technological advancements, particularly in telecommunications, have been a driving force behind the feasibility and effectiveness of remote work arrangements. These technologies not only connect remote workers with their colleagues but also enable access to company systems, thereby fostering a virtual work environment. Bloom et al. (2015)

Purpose of the Research

The main aim of conducting this research is to examine why Pakistani people and businesses were slow in adopting remote work, and propose possible solutions. Businesses in Pakistan have lagged behind other parts of the world in almost everything, but embracing remote work can be a small

step towards changing that. We want the public to be aware that they can always work from home instead of going through the hardships of getting to their workplaces which may even cost the firms and workers themselves. This study will recommend the government's plan.

Significance of the study

The importance of this research lies in its ability to explore various reasons for less adoption of remote work in Pakistan which has implications beyond academic interest. Through identifying the barriers specific to Pakistan, this research aims at informing practical interventions. The results can influence a wide range of issues such as cultural perceptions, technological investments and governments' support structures hence shaping nation's economic landscape. Furthermore, this research contributes to the global discourse on remote work, offering comparative perspectives and enriching the collective knowledge base on the evolution of work practices in diverse contexts. Ultimately, the significance of this study exceeds the immediate scope, holding the promise of positively influencing work ecosystems, economic courses, and societal dynamics in Pakistan and, potentially, beyond.

Research Question

What are the primary factors contributing to the slower adoption of remote work practices in Pakistan compared to global trends, additionally, how do these factors interact and shape the unique landscape of remote work adoption in Pakistan?

Literature Review

Global Remote Work Trends

As we navigate the dynamic landscape of post-pandemic work in 2023, several notable remote work statistics shed light on the current state and future trends. Currently, 12.7% of full-time employees have transitioned to remote work, showcasing the swift integration of remote work environments. Concurrently, a substantial 28.2% of employees have embraced a hybrid work model, balancing work between home and the office to provide flexibility and maintain a physical presence in the workplace. (Forbes advisor 2023)

Despite the increasing prevalence of remote work, the majority of the workforce (59.1%) remains in traditional in-office settings. This percentage emphasizes that while remote work is on the rise, conventional in-office work is still predominant. Approximately 16% of companies have already

adopted a fully remote structure, operating without a physical office. These pioneering companies serve as trailblazers in the realm of remote work, demonstrating its feasibility and setting a precedent for others to follow. (Forbes advisor 2023)

According to Forbes advisor,

The leading sectors for remote workers in 2023 is computer and IT

1. Computer and IT
2. Marketing
3. Accounting and Finance
4. Project Management
5. Medical and Health
6. HR and Recruiting
7. Customer Service

The most common position in job listing in 2022 was accountant

1. Accountant
2. Executive Assistant
3. Customer Service Representative
4. Senior Financial Analyst
5. Recruiter
6. Project Manager
7. Technical Writer
8. Product Marketing Manager
9. Customer Success Manager
10. Graphic Designer

Education is also a key factor influencing access to remote work opportunities. Individuals with higher levels of education are more likely to have access to remote work options. This correlation may stem from the nature of roles that require postgraduate qualifications, typically involving cognitive tasks that can be performed from any location.

Workers with more education are more likely to have remote work options

Remote Workers by Education Level

Source: Mckinsey & Company

Education level	Full-time remote	Part-time remote
Less than high school	32%	21%
High school/some college	29%	19%
Associate's	31%	19%
Bachelor's	40%	26%
Advanced degree	45%	31%

Source: Forbes Advisor • Embed

Forbes ADVISOR

Table 1 Source: Forbes Advisor + Embed

Remote work preferences? (A survey)

As remote work continues to gain reputation, it becomes crucial to hold the perspectives of workers towards this evolving model. Surveys and studies provide insightful indications into workers' preferences and the effects of remote work on their lives. Remarkably, workers' preferences make straight with this trend, as an overwhelming 98% of them have expressed the desire to engage in remote work, at least on a part-time basis.

On average, remote workers earn \$19,000 more than office workers. Specifically, remote workers have an average salary of \$74,000, while in-office workers typically earn an average of \$55,000.

One particularly notable statistic reveals that 57% of workers would expect leaving their current job if their employer stopped to permit remote work. This statistic underscores the importance that workers quality to the flexibility and autonomy associated with remote work.

Productivity is another crucial element influencing workers' preferences for remote work. A notable 35% of remote employees report feeling more productive when working entirely remotely. This increased productivity could be credited to factors such as reduced commute times, fewer in-person distractions, or the ability to create a work environment tailored to their specific needs.

65% of workers desire to work remotely all the time, highlighting the popularity of this work model. At the same time, 32% prefer a hybrid schedule.

In terms of work-life balance, a key component of employee well-being, remote work appears to have a positive influence. A significant 71% of remote workers indicated that remote work contributes to balancing their professional and personal lives. Yet, it's essential to recognize that 12% reported a negative impact on their work-life balance, underscoring that remote work may not be suitable for everyone. (Forbes advisor 2023)

Existing Researches based on remote work in Pakistan

The landscape of remote work adoption has been a subject of increasing interest globally, including within the context of Pakistan. In this section we will review existing research studies that have explored various facets of remote work adoption.

A research was held named “Who can work and study from home in Pakistan: Evidence from a 2018–19 nationwide household survey” (By department of economics, LUMS university). Which was conducted to examine the feasibility of working and studying from home in Pakistan. Used 2018–19 Pakistan Social and Living Standards Measurement (PSLM) Survey. Stated that the percentage of individuals with access to dependable internet in Pakistan ranges from 60% to 70%, approximately both mobile and broadband connections. About 10% of jobs in Pakistan have the potential to be conducted remotely, with urban areas showing a slightly higher proportion at 12% compared to rural areas at 9%. Specifically, the three major cities in Pakistan—Islamabad, Lahore, and Karachi—have approximately 25%, 16%, and 18% of jobs, respectively, that could feasibly be performed online.

Its results revealed that Limited access to the internet, computers, and a lack of proficiency in using digital devices present significant barriers for both workers and students in Pakistan. To overcome the challenges imposed by COVID-19, it is crucial to implement proper training programs and upgrade the skills of workers, ensuring they are equipped to navigate and thrive in a digital environment. This initiative is essential for addressing existing obstacles and preparing individuals to meet ongoing challenges effectively.

Another Research on “Experiences of Work from Home in Pakistan during COVID-19 by css journal” revealed that, the analysis was carried out utilizing both SPSS, employing descriptive

statistics, and content analysis. The findings indicate a notable shift in work patterns, with the majority of respondents (58%) transitioning to working from home after the pandemic. Specifically, 45% are currently working from home, while 16% have not engaged in remote work. The significant percentage of respondents adopting remote work post-pandemic suggests that working from home is a novel and relatively uncommon working strategy in Pakistan.

Their analysis revealed that the majority of respondents (45%) commenced working from home in March 2020, with an additional 36% initiating remote work in 2021, although the specific month was not specified. These statistics strongly suggest that the adoption of the work-from-home (WFH) strategy in Pakistan is a direct outcome of the lockdown restrictions imposed by authorities across the country in early March 2020. The shift from in-person to remote working is clearly evident in the study's findings, reflecting the significant impact of the lockdown measures on the working modes of individuals, with the majority transitioning to WFH in 2020, while a smaller portion began remote work in 2021.

Methodology

Remote work has gained immense popularity throughout the globe. It has numerous opportunities for working class. For this study we have used multiple sources to collect the data. Significantly we have used both primary and secondary methods. Firstly we have conducted a questionnaire and survey based on factors leading it too far in adoption. The questionnaire is sent to those working from home and earning. The questionnaire is limited to 12 multiple choice questions. Many remote employees have fulfilled all the questions. Other than this for secondary data we have collected information from various researches which identify limitations in its adoption. And further, we have taken data from various internet sources and lastly the surveys which have been conducted in Pakistan highlighting the multiple obstacles for working remotely.

Results and discussions

We have collected data from different sources and analyzed that data to evaluate the final result. The result shows what factors have been commenced which develop lagging performance for Pakistan in remote work adoption. We have used multiple methods through which we have identified the main obstacles. However some of them which mostly affect their work contains poor

internet connectivity, worse technological infrastructure, lack of remote work education and cyber security concerns.

A survey was conducted by GSMA Mobile connectivity index.

According to the GSMA Mobile Connectivity Index, Pakistan's overall connectivity ranking reflects the challenges faced in achieving robust internet performance, encompassing factors such as infrastructure, affordability, and network reliability.

According to their survey, in Pakistan there is total population of 231.62 million. But their usage of internet connectivity is enjoyed only by 52 percentage. Which is very poor comparing with other countries in south Asia.

For further investigation we have looked into research article by Samina Zamir and Zhencun Wang. Their study looked at the difficulties in getting internet access in rural China and Pakistan during the Covid-19 outbreak. Which stated that by the end of 2021, 70.9% of Chinese people were using the internet, with 63.4% of the country's population living in urban areas and 36.6% in rural ones. Pakistan had a lower internet penetration rate with 37.8% of people living in urban regions and 62.2% in rural ones. Although China is more compatible and advanced, but Pakistan's rate in internet connectivity disappoints, which remains a most controversial obstacle in achieving remote work.

While a questionnaire and survey we have conducted which included 12 multiple choice questions. In which we asked many remote workers to fill it out.

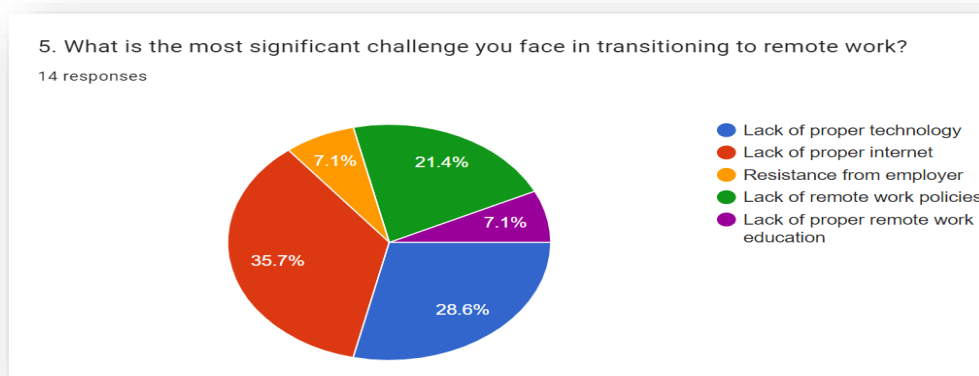


Figure 1 Questionnaire conducted

The following graph shows one of the questions asked from remote employees that what the core obstacle they face while working remotely is. And their response was most towards the internet most, which indicate that internet connectivity might be very crucial sometimes which becomes obstacle for them working remotely. However their complaint was also for poor technological infrastructure which remains after internet.

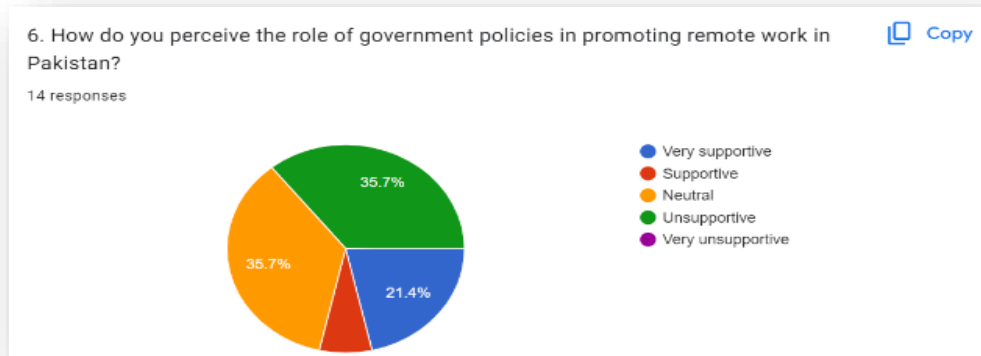


Figure 2 Questionnaire conducted

Government of Pakistan has important role in policymaking. But due to poor policies employees working from home do not feel them supportive. Which is clearly stated and shown in the figure 2.

According to a research study conducted by Ghulam Muhammad Kundi, Bahadar Shah and Allah Nawaz from Gomal University, DI Khan, Pakistan, Digital Pakistan: opportunities & challenges

2007 e-readiness rank (of 69)	2006 rank	Country	2007 e-readiness score (of 10)	2006 score
1	1	Denmark	8.88	9.00
2(tie)	2	US	8.85	8.88
2(tie)	4	Sweden	8.85	8.74
54(tie)	53	India	4.66	4.04
61	59	Sri Lanka	3.93	3.75
63	67	Pakistan	3.79	3.03
69	65	Iran	3.08	3.15

Table 2 Sourced by Economist Intelligence

Derived from the 2007 Economist Intelligence Unit e-readiness rankings, it is evident that among 69 countries, Pakistan is positioned at 67th place. This indicates a relatively low standing for Pakistan in terms of technological advancement..

While if we look into the questionnaire, technological absence is similarly on top after internet as shown in figure 1. Which means that technological failure is also major obstacle in their work.

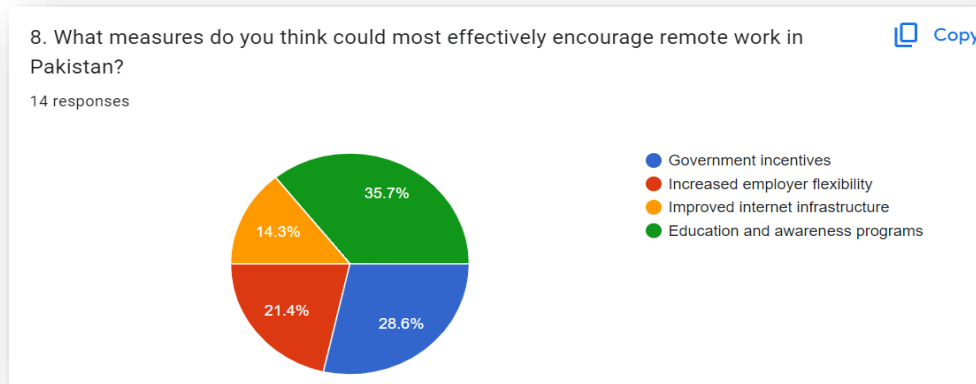


Figure 3 Questionnaire conducted

Organizations may not provide adequate support mechanisms for remote employees, such as training programs, IT support, or clear communication channels, making it challenging for employees to adapt to remote work effectively. Insufficient training programs leave employees unprepared, leading to inefficiencies, potential errors, and a lack of confidence in utilizing remote work tools effectively. As shown in figure 3 that lack of education in the employees keep them behind in adopting remote work. Education and awareness can be a bridge between employees and remote work and can encourage them towards its adoption.

The lack of strong cyber security measures may pose a barrier to remote work adoption, as organizations and employees may be hesitant to engage in remote activities due to fears of data breaches and security threats. As of our findings according to a research,

Pakistan ranked 7 worst country in cyber security, report by Ambreen Shabbir

Rank	Country	Score	Percentage of Mobiles Infected with Malware	Financial Malware Attacks (% of Users)	Percentage of Computers Infected with Malware	Percentage of Telnet Attacks by Originating Country (IoT)	Percentage of Attacks by Cryptominers	Best Prepared for Cyberattacks
1	Algeria	55.75	22.88	0.9	32.41	0.01	5.14	0.432
2	Indonesia	54.89	25.02	1.8	24.7	1.51	8.8	0.424
3	Vietnam	52.44	9.62	1.2	21.5	1.73	8.96	0.245
4	Tanzania	51.00	28.03	0.7	14.7	0.04	7.51	0.317
5	Uzbekistan	50.50	10.35	0.5	21.3	0.01	14.23	0.277
6	Bangladesh	47.21	35.91	1.3	19.7	0.38	3.71	0.524
7	Pakistan	47.10	25.08	1.4	14.8	0.4	6.07	0.447

Figure 4 Source Pro Pakistani

The study considered various indicators to assess cyber security, including the percentage of mobile phones infected with malware, the percentage of attacks by crypto miners, the percentage of computers impacted by cyber-attacks, and the level of currency in a country's legislation regarding cybersecurity, among other factors. These indicators provide a comprehensive overview of the cybersecurity landscape, incorporating both technological vulnerabilities and the legal framework in place to address and prevent cyber threats.

Conclusion

To sum it up, this research looked into why remote work isn't catching on as quickly in Pakistan. We found out that cultural beliefs and the way we usually work play a big role. Also, not everyone has the right tools and the internet for remote work. Education also has a big role in transforming the workplace into remote work, but unfortunately, in Pakistan, awareness lacks too much.

We talked to people to hear what they think about working remotely. Some like it, and some find it tricky. The government rules also play a part in how companies decide about remote work.

We looked at what other countries are doing to see if we can learn from them. And we found out that if more people work from home, it might have good effects on how much work gets done, how happy people are, and even on the environment.

In the end, we want to give ideas to companies and the government so they can make things better for people who want to work remotely. We hope our study helps everyone understand more about how work is changing and how we can make it work better for everyone.

References

1. Ozimek, Upwork Chief Economist "Covid 19 and remote work: An early look at US data, April 2020 "The Future of Remote Work".
2. Andrea Alexander, Aaron De Smet, Meredith Langstaff, and Dan Ravid "What employees are saying about the future of remote work".
3. Digital Pakistan: opportunities & challenges, Journal of Information Systems and Technology Management Vol. 5, No. 2, 2008, p. 365-390
4. Veronica Popovici Alina - Lavinia Popovici "Ovidius" University of Constanta, Romania. "Remote Work Revolution: Current Opportunities and Challenges for Organizations"
5. Udemezue John, Published in Internet Billionaire. ' How To Get Remote Jobs In Pakistan".
6. Who can work and study from home in Pakistan: Evidence from a 2018–19 nationwide household survey by Syed M. Hasan, Attique Rehman and Wendong Zhang.
7. Entrepreneurs of Pakistan. "Embracing the rise of remote work for Pakistani entrepreneurs"
8. The Future Of Global Remote Work: Navigating A New Landscape
9. Why Pakistan is a hidden gem for remote hiring
10. Leveraging Remote Work: A Sustainable Solution for Pakistan's Inflation Woes
11. The Effects of Remote Work Published By Emma Goldberg Oct. 10, 2023. Sourced by The New York Times.
12. Navigating the Nexus: Technological Trends Shaping the Future of Remote Work." Journal of Technology in the Workplace, 33(3), 275-290.
13. Navigating the Virtual Frontier: Assessing the Impact of Cyber security Concerns on Remote Work Practices." Journal of Cyber security Research, 40(3), 315-330.
14. 3 New Studies End Debate Over Effectiveness Of Hybrid And Remote Work By Bryan Robinson, Ph.D.
15. GSMA Mobile Connectivity Index 2022

16. Gajendran, R. S., & Harrison, D. A. (2007). "The Good, the Bad, and the Unknown About Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences." *Journal of Applied Psychology*, 92(6), 1524–1541.
17. Charting the Course: Observations on Global Remote Work Trends in the Post-Pandemic Era." *International Journal of Remote Work Studies*, 35(2), 189-204.
18. Shaping the Future: Exploring the Transformative Impact of Internet Connectivity on Remote Work Practices." *Journal of Digital Work Environments*, 32(2), 189-204.
19. Pakistan Ranked 7th Worst in Cyber-Security: Report By Ambreen Shabbir
20. Uncovering Covid-19, distance learning, and educational inequality in rural areas of Pakistan and China: a situational analysis method
21. Navigating the New Normal: Reshaping Organizational Perspectives Post-Pandemic. McKinsey Global Institute Report
22. Technological Infrastructure and Remote Work: A Case Study of Developing Economies." *Journal of Information Technology and Management*, 21(3), 215-230.
23. Covid-19 continues to reshape the work By BY Kim Parker, Horowitz and Rachel Minkin.
24. How working from home works out. Author Nicholas Bloom. Published on Stanford institute for economic policy research.
25. Pakistan's perspective on working from home / remote working
26. Remote work and the COVID-19 pandemic: An artificial intelligence-based topic modeling and a future agenda
27. Cultural Influences on Workplace Preferences: A Comparative Analysis of Global Workforces. *International Journal of Cross-Cultural Management*, 19(4), 455-473.
28. Remote Work Productivity: How to Get the Most From the Future of Work