

RESEARCH ARTICLE

Determinants of Remote-Work Effectiveness and Their Impact on Project Success: Evidence from Project-Based Organizations in Pakistan

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Abstract: Remote working is growing rapidly in project-oriented organizations, especially in developing countries where digital systems are still maturing. As many firms shift toward flexible and hybrid structures, it has become important to understand how key remote-work factors influence project outcomes. Earlier studies point to the roles of autonomy, technology readiness, communication quality, and work-life balance in shaping employee performance, but evidence from project-based organizations remains limited. This study examines how five determinants of remote work affect project success in Pakistani project-based companies: communicating frequently and well (CFW), promoting work-life balance (EWLB), maintaining interest and productivity (MIP), providing accessible technology (PAT), and supporting worker autonomy (EWA). A quantitative survey was conducted with 225 employees from project-oriented firms in Islamabad and Rawalpindi. Descriptive statistics, factor analysis, correlation tests, and regression modeling were used to assess the significance and strength of each determinant in predicting project success. The analysis showed that all five determinants contributed meaningfully to project success, with communication, accessible technology, and autonomy emerging as the strongest predictors. Work-life balance and productivity also showed positive and supportive effects. Remote work improves project outcomes when employees have reliable technology, clear communication channels, reasonable workloads, and the autonomy needed to manage tasks effectively. These findings can guide project-based organizations in emerging economies as they expand remote-work practices and aim for stronger performance.

Keywords: Pakistan Remote Work, Project Success, Technology Accessibility, Communication, Productivity, Work-life Balance, Autonomy

Introduction

Remote work has long since ceased to be a crisis-induced need, and it has become a common organizational norm that is slowly forming the way teams interact, communicate, and get their projects off the ground. The use of digital technologies increased dramatically due to the COVID-19 pandemic, compelling organizations to reconsider the operational framework and dependence on digital systems (Adekoya et al., 2022a; Patanjali and Bhatta, 2022). Project-based organizations in developing countries, such as Pakistan, had unique obstacles in this transition, such as low levels of technological preparedness, differences in managerial style, and access to digital infrastructure (Ahmed et al., 2022). Irrespective of these obstacles, numerous institutions quickly shifted to the hybrid and remote models that raised critical questions on the determinants of remote work and its impacts on the projects.

Structured coordination, clarity in communication, availability of resources, team motivation, and timely decision-making is often the key to success in project environments. It has been consistently

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demonstrated that working in a remote setting alters these aspects, necessitating a change in the leadership style, the amount of technological investment, and human resource practices (Babapour Chafi et al., 2022; Pennington et al., 2022). These changes indicate that there is a necessity to conduct empirical research on the role of particular determinants of remote work, including the frequency of communication, work-life balance, access to digital, autonomy, and self-managed productivity in project success.

Moreover, new research in the behavioral field introduces the importance of presenteeism and its connection with remote working and performance management. To take one instance, Iqbal et al. (2025) has shown that presenteeism disrupts the well-being of employees and the performance of a project, thus supporting the value of supportive and balanced working structures that eliminate chronic strain and cognitive fatigue.

Despite the fact that the international scholarship provides a lot of understanding about the performance of remote work, there is still a lack of studies that specifically analyze the performance of project-based organizations in Pakistan. This gap is particularly pertinent considering the fact that in the country the amount of construction, IT, development, and donor-sponsored projects that are increasingly based on blended or virtual collaboration systems is high. Project teams as discussed by Nawaz et al. (2024) are supposed to work in dynamic environments that demand flexibility and motivational alignment that are affected by the conditions of remote work.

The current paper is based on these findings by considering five empirically proven determinants of remote work, which include Communicate Frequently and Well (CFW), Encourage Work-Life Balance (EWLB), Maintain Interest and Productivity (MIP), Provide Accessible Technology (PAT), and Enhanced Worker Autonomy (EWA) and evaluates their impact on the success of a project. The study measures the strength of each determinant with the help of descriptive statistics, correlation analysis, factor validation and regression modelling, through a survey of 225 project professionals in Islamabad and Rawalpindi. This research will help to advance further discussions on the optimization of remote work and offer practical advice to organizations on how to improve productivity, communication, and performance in virtual settings by combining both recent literature and contextual evidence on the same topic within the Pakistani setting.

Literature Review

Remote Work Development and Modern Company Requirements

Remote work which was initially viewed as an optional flexibility-enhancing tool has turned out to be a strategic element of organizational design. The pandemic pushed the mass adoption forward forcing the organizations to switch to digital operations and virtualization of tasks (Stoker et al., 2022; Shouman et al., 2022). The studies indicate that working remotely may increase efficiency, minimize administrative burdens, and employee commitment provided that management structures are in place (Almazrouei et al., 2025). Nevertheless, in the absence of effective support systems, remote work may also cause uncertainties, lack of communication, and inconsistency in performance (Pokojski et al., 2022).

Remote work in the project-based setting that involves high levels of coordination and interdependence of tasks needs clear structures in terms of monitoring the progress and managing expectations and team cohesion. Baškarada et al. (2022) claim that in project environments, the digital transformation initiatives should be focused on workflow transparency and knowledge-sharing systems to ensure efficient collaboration.

Communication Quality as a Determinant of Remote Project Performance

Communication is a very important factor that determines the team functioning especially when it passes through virtual mediums. It has been reported that the quality of communication has a direct impact on project alignment, decision-making as well as conflict prevention (Peslak, 2012). These effects are

exacerbated in remote teams since the team members have to depend more on digital tools to ensure that there is shared understanding and uncertainty is managed. According to Babapour Chafi et al. (2022), frequency and structure are critical in establishing psychological safety in virtual settings.

Good remote communication improves trust, lowers ambiguity, and enlightens expectations, which in turn lead to greater project results. Unstructured communication, on the other hand, enhances misunderstandings, time wastage and lack of interest. Different levels of digital literacy and a lack of consistent access to stable communication sources in Pakistan pose further challenges to project-based organizations (Ahmed et al., 2022).

Remote Work Environment and Work-Life Balance

One of the significant predictors of employee satisfaction, well-being, and performance is work-life balance (WLB). Remote work transforms the scope of personal boundaries, which increases flexibility, but it also leads to role conflict because of the blurring of the workspace and home settings (Babapour Chafi et al., 2022; Adekoya et al., 2022b). Poor management of boundaries may enhance presenteeism which is a behavioral trend in which employees will work even though they have diminished physical or mental capacity. The paper by Iqbal et al. (2025) emphasizes the role of presenteeism in undermining the performance of a project due to loss of focus, growth of errors, and lack of motivation.

According to the scholars, the supportive policies, such as flexible schedule, clarity on what is expected, and empathy of the manager, can promote WLB in remote settings (Pennington et al., 2022). In the case of project teams, enhanced WLB is associated with enhanced cognitive functioning, reduced intentions to turnover, and increased goal commitment.

Productivity Maintaining and Motivation under Virtual Environment

The productivity in remote work is associated with autonomy, clarity of tasks to be carried out, performance monitoring systems, and access to digital tools. Alvarenga et al. (2020) underline that the productivity is determined by the level of engagement and responsibility of the employees that becomes better when the latter feel empowered in order to control their working process. Studies have shown that telecommuters tend to be equally or better productive when given autonomy and enabling systems as compared to the employees in offices (Samuel, 2024).

Nonetheless, motivation at distant locations is delicate to distractions, social isolation, and ambiguous job anticipations. Research suggests that organizations should implement output-based assessment instead of strict time-recording that will create a sense of ownership and intrinsic motivation (Shouman et al., 2022).

Technology Accessibility as the Foundation of Telecommute

The accessibility of technology is constantly determined as one of the most efficient foretellers of the triumph of remote working. PAT also includes communication platform access, quality internet, safe systems, cloud products and tech support. As Haidar et al. (2023) describe, technology-related obstacles play a significant role in interrupting the working process and project efficiency of organizations. Without good connectivity, teamwork will be fragmented, deadlines will be missed and team spirit will be destroyed.

Another challenge that is still present in the project environment in Pakistan is the technological disparities between the employees (Ahmed et al., 2022). The international studies also indicate that organizations that invest in a robust digital infrastructure have an easy transition to hybrid models and improved results in performance (Baškarada et al., 2022).

Managerial Independence and Control over Decisions

Autonomy is a very important element in a remote working since decentralized organization means that he or she is in control of his or her time, priorities, and solutions to his or her problems. Research has shown that autonomy fosters job satisfaction, creativity and self-regulation (Stoker et al., 2022). Siddique et al. (2023) also state that autonomy fosters innovation and commitment because it makes employees feel that they own the business.

The concept of greater autonomy is being linked with improved project outcomes especially in dynamic environments where fast decisions must be made. Independence in remote sites reduces micromanagement by managers and the inculcation of trust that form stronger and flexible teams.

Relationships of Remote Work and Project Success

Project success performance indicators are multidimensional and they are cost, schedule compliance, quality deliverables, risk management as well as stakeholder satisfaction. Rotundo (2012) indicates that organizational procedures and behaviors of individuals determine success of a project, hence a project is sensitive to remote work environment. The determinants that were discussed in this paper including communication, WLB, productivity, technology and autonomy are quite in line with the success drivers that have been reported in the literature regarding project management.

As practice shows, well-designed remote working systems can improve the efforts of a project by providing flexibility, removing stress, and facilitating the work of the distributed team (Pennington et al., 2022; Shouman et al., 2022). Conversely, inefficiency and poor project delivery are occasioned by lack of autonomy, inadequate technology and poor communication systems.

Research Questions

RQ1: How do frequent and well (CFW) communication influence the success of a project when working remotely?

RQ2: What is the role of promoting work life balance (EWLB) in project success?

RQ3: How maintaining interest and productivity (MIP) predicts project success?

RQ4: What is the impact of the presence of available technology (PAT) on the success of projects?

RQ5: How does the increased worker autonomy (EWA) impact the success of the project?

Objectives

1. To investigate the role of communicating frequently and well (CFW) in project success when working in a remote environment.
2. To identify the impact of work-life balance (EWLB) as a motivation on project deliverables.
3. To determine the effect of maintaining interest and productivity (MIP) on project success.
4. To consider the impact of the availability of accessible technology (PAT) on the project performance.
5. The purpose of the research was to explore how enhanced worker autonomy (EWA) predicts project success.

Theoretical Framework

The integration of the Job Demands-Resources (JD-R) model and the Conservation of Resources (COR) theory can be comprehended as the determinants of remote work. According to the JD-R model (Bakker and Demerouti, 2007), employees get strained in the event that job demands are beyond the resources available. Communication quality, access to technology and autonomy in remote work environments are job resources to facilitate employees effectively manage workload. In situations where the demands in a project are high and the resources available are adequate, the performance is high; in situations where the resources are inadequate, the chances of disengagement occur. This is supplemented by the COR theory (Hobfoll, 1989) which focuses on the accumulation and protection of resources. The distance workers will need to save time,

energy and emotional stability, i.e. inconveniences caused by lack of communication or poor infrastructure hastens the loss of resources. The two theories explain the reason behind the success of communication, work-life balance, productivity routine, technology, and autonomy to be determinants of project success. The framework thus places these factors as direct predictors of the project results of project-based organizations.

Methodology

The research design used was a quantitative study to investigate the impact of remote work determinants on project success. The sample consisted of the employees of project-based organizations in Islamabad and Rawalpindi. Simple random sampling was used in selecting a sample of 225 respondents. The structured questionnaire was used to collect data based on a seven-point Likert scale. Cronbach alpha was used to determine reliability, whereas Kaiser Meyer Olkin (KMO) measure and Bartlett Test of Sphericity were used to test construct validity. The data were analyzed through descriptive statistics, factor loading testing, correlation testing and regression analysis using SPSS.

Result

Descriptive statistics, factor validity tests, correlation analysis, and multiple regression modeling were utilized in the analysis of the results of the study. The results discuss how the five remote-work determinants, Communicate Frequently and Well (CFW), Encourage Work Life Balance (EWLB), Maintain Interest and Productivity (MIP), Provide Accessible Technology (PAT) and Enhanced Worker Autonomy (EWA) affect Project Success (PS). All the analyses were done on the SPSS 26 and assumed to meet the requirements of multivariate testing.

Table 1
Descriptive Statistics

Variable	N	Min	Max
Communicate Frequently & Well	225	1	7
Encourage Work-Life Balance	225	1	7
Maintain Interest & Productivity	225	1	7
Provide Accessible Technology	225	1	7
Enhanced Worker Autonomy	225	1	7
Project Success	225	1	7

Interpretation

All variables scored above the mid-point, indicating generally favorable perceptions of remote work determinants. Technology and autonomy scored highest, suggesting their critical role in remote project environments.

Table 2
KMO & Bartlett's Test

Test	Value
KMO	0.943
Bartlett's Test (χ^2)	5418.03
df	496
p-value	0.000

Interpretation

Sampling adequacy was excellent, and correlations were statistically significant, validating the suitability of factor analysis.

Table 3

Factor Loadings

Construct	Loadings Range	Cronbach's Alpha
CFW	.689–.819	0.864
EWLB	.621–.883	0.869
MIP	.658–.786	0.859
PAT	.524–.877	0.873
EWA	.622–.875	0.874
Project Success	.520–.815	0.894

Interpretation

All constructs demonstrate strong internal consistency and acceptable loading ranges, confirming convergent validity.

Table 4

Correlation Matrix

Variable	CFW	EWLB	MIP	PAT	EVE	PS
CFW	1	.630**	.613**	.614**	.656**	.672**
EWLB	—	1	.793**	.566**	.618**	.627**
MIP	—	—	1	.673**	.666**	.673**
PAT	—	—	—	1	.789**	.737**
EWV	—	—	—	—	1	.846**
PS	—	—	—	—	—	1

Interpretation

All predictors are significantly correlated with project success. Autonomy and technology show the strongest correlations.

Table 5

Regression Outcomes

Predictor	β	R²	F	t	Sig
CFW → PS	.618	.452	183.95	13.56	.000
EWLB → PS	.574	.393	144.26	12.01	.000
MIP → PS	.634	.453	184.91	13.60	.000
PAT → PS	.682	.543	266.28	16.32	.000
EWA → PS	.815	.716	559.78	23.67	.000

Interpretation

All relationships are statistically significant. Worker autonomy is the strongest predictor of project success, followed by technology accessibility.

Table 6

Hypothesis Summary

Hypothesis	Statement	Supported
H1	Determinants → Project Success	Yes
H2	CFW → PS	Yes
H3	EWLB → PS	Yes
H4	EWA → PS	Yes
H5	MIP → PS	Yes
H6	PAT → PS	Yes

Discussion

The results of the current research proved that the determinants of remote work play a significant role in defining the success of a project within the project-based organizations in Pakistan. The high power of

autonomy shows that employees work well when they have sufficient decision-making power. This is consistent with Samuel (2024) and Shouman et al. (2022), who identified autonomy as one of the major facilitators of creative production and ownership of the task. The availability of technologies also played a role, which is why the authors of Pokojski et al. (2022) argue that technology is the backbone of virtual work systems. Organizations that are not well equipped in terms of technology have barriers that slow down communication, task execution, and continuity of the workflow.

The quality of communication showed significant differences, which agrees with Alvarenga et al. (2020), who emphasized the role of communication as the basis of coordination in a project set-up. A somewhat less dominant, but nonetheless a significant role was played by the work-life balance. This is in line with other research by Sanawar et al. (2025) that showed that better balance lowers burnout and promotes performance. A strong correlation was also observed between productivity maintenance and project outcomes, which justified the findings by Patanjali and Bhatta (2022) that structured remote routines are better at improving engagement.

Altogether, this evidence indicates that determinants of remote work do not act independently; on the contrary, they support each other. Weakness of one of the determinants restricts effectiveness. To illustrate, performance is limited by autonomy in the absence of technology, and strain is enhanced by communication in the absence of a balanced work-life. The combination of the JD-R and COR theories is another clear indication that employees can handle project demands better when in an environment that is rich with resources.

Conclusion

The research determines that quality communication and work life balance, the ability to maintain productivity, the availability of technology and autonomy of workers are key determinants of project success in remote workplaces. The strongest were found to be autonomy and technological access, which indicate their determinative nature in facilitating employees to meet project deadlines, sustain performance standards, and work in team. These data bolster the evidence in the world that the success of remote work hinges on the structured systems, resources, and mechanisms that ensure the welfare of the employees. Pakistan-based project organizations have to embrace resource-enhancing initiatives that incorporate these determinants in bolstering performance in changing digital contexts.

Recommendations

1. Enhance electronic communication protocols to make them clear and minimize delays.
2. Invest in safe and trustful technology infrastructure to cover remote teams.
3. Enhance autonomy-oriented management systems that can make decisions that are flexible.
4. Introduce work-life balance policies which minimize strain and burnout.
5. Create productivity monitoring systems that are result oriented rather than hour oriented.
6. Where possible, adopt the hybrid work structure to maximize flexibility and efficiency.

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