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Exploring the Effect of Hybrid Work Flexibility on Employee Innovation Performance, Mediated by Work Engagement and the Moderating Effects of Digital Leadership Competency

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ABSTRACT

The study examines whether employee innovative performance is influenced by hybrid work flexibility, which relies on work engagement and is affected by digital leadership competency. With the help of JD-R theory, the study employed a cross-sectional design and obtained samples from employees, analyzing data through AMOS from 295 IT manufacturing employees working in a hybrid work environment in Pakistan. The findings reveal that hybrid work flexibility positively influences employee innovative performance, and work engagement partially mediates this relationship. Moreover, digital leadership competency moderates the impact of hybrid work flexibility on the employee's innovative performance. These research findings provide theoretical and practical implications for organizations in hybrid work.



Introduction

Because of the COVID-19 pandemic, businesses across the world have had to change, which has led to more digital transformation in places like Pakistan. Digital technologies play an important role in helping organizations handle competitive pressure, boost innovation, streamline operations, and respond well to changes in the market (Muneer et al., 2024). In Pakistan, with SMEs making

up over 90% of the private sector and giving a 40% contribution to the GDP and 78% to employment, digital transformation has become crucial and is no longer optional (Williams & Shaw, 2025).

Being aware of its potential, the Government in Pakistan launched the “Digital Pakistan Vision” and SME policies under the Ministry of IT and Telecommunication to promote both technology and digital knowledge in businesses (Sarkis, 2025). Although businesses in SMEs are taking these steps, their rate of adopting digital technologies remains lopsided because of issues such as poor infrastructure, a shortage of finances, and a lack of skilled employees (Zia et al., 2024). According to a study conducted recently, over half of SMEs in Pakistan are having trouble introducing digital solutions because of issues with talent at leadership and management levels (Zapata et al., 2024).

When organizations transform digitally, there may be employee resistance, stress that comes with new technology, and difficulties in finding a good work-life balance—all these can cause employee dissatisfaction and a drop in digital productivity (Zia et al., 2024). Most Pakistanis are young, many of whom use the internet regularly and are important workers as well (Zapata et al., 2024). Consequently, if workers use digital tools well to complete tasks, the overall performance of transitioning firms is greatly affected, showing that digital skills at the worker level matter a lot (Haleem et al., 2022).

Current studies in Pakistan rarely examine the outcomes of digitalization for employees when looking at digital technologies and organizations. There is still a major gap in knowing which organizational aspects help small and medium enterprises perform well in digital spaces. It is becoming clear from recent findings that digital leadership, which involves vision, promoting digital methods, and being technically adept, helps to increase employee engagement and digital innovation (Zahoor et al., 2024).

Hybrid work flexibility is not merely a logistical shift but a redefinition of how work is organized, executed, and evaluated. It grants employees greater autonomy over their work schedules and locations, potentially fostering a more empowered and productive workforce. Amid this transformation, innovation performance among employees has become a critical factor for organizational survival and competitiveness in an increasingly volatile, uncertain, complex, and ambiguous environment (Krajčák et al., 2023). Employee innovation performance refers to the generation, promotion, and implementation of novel ideas and solutions within the workplace (Gibbs et al., 2024). As firms strive to adapt and innovate, understanding how flexible work structures influence this performance becomes imperative.

Still, there has not been much research on how HWF, EIP, WE, and DLC interact in the Pakistani context (Zia et al., 2024). It is essential to examine how such variables interact since this can boost digital performance in smaller companies that handle resource constraints and significant uncertainty. It attempts to address the gap in the literature by examining the effects of HWF and EIP, with WE mediating, and DLC as moderating factors. Using Job Demands–Resources (JD-R) theory, the study suggests that HWF affects EIP and the moderating mediating association. The research provides relevant advice and insights for those wishing to build digitally skilled and capable employees in Pakistan’s digital economy.

2. Theoretical basis and research hypothesis

2.1. Theoretical basis

In today's workplace world, hybrid work flexibility helps to improve both how employees prosper and the development of new ideas. This study examines hybrid work models through the Job Demands–Resources (JD-R) theory (Standal & Kristensen, 2022) and questions how they influence workers' innovative performance by using the motivational route of work engagement, taking into account the effects of digital leadership competency. Researchers explain that jobs may require energy while at the same time giving us the chance to use resources that boost performance (Effiyaldi et al., 2025). Hence, the flexibility of hybrid work, seen as a job resource, can increase workers' freedom, control over their duties, and sense of well-being, all of which are expected to help boost employee engagement and innovative ideas (Standal & Kristensen, 2022).

Because organizational culture in Pakistan used to be highly hierarchical and firm, the pandemic helped move work practices toward flexibility in the IT, banking, education, and telecom industries (Datta et al., 2025). Working remotely and on-site has helped organizations change their work systems to make the organization more flexible and efficient. Flexibility at work allows employees to manage their time better, which promotes creativity and encourages the tryout of new ideas, helping a company become innovative (Jiang et al., 2023). Still, flexibility will not produce the results it should unless it is supported by work engagement and digital leadership competency.

Having engaged employees, described as feeling strong, dedicated, and interested, plays a role in demonstrating the connection between certain job conditions and the outcomes at work. Based on research, when jobs are flexible, there is less stress for employees, their satisfaction with the job increases, and they feel more responsible for their work. If workers are engaged, they have a tendency to try new things, be creative, and take sensible risks, which helps improve innovation in the company (Jiang et al., 2023).

Even though hybrid work helps, how well it improves engagement depends in part on how prepared leaders are to lead in a digital environment. This study adds digital leadership competency as a factor that makes hybrid work practices more effective. People who are digitally competent as leaders can benefit from digital tools, bring teams closer together online, and support virtual teams (Yozi & Mbokota, 2024). Since Pakistan's digital infrastructure is not as advanced as some countries, and leadership skills online are still developing, having leaders who are skilled with digital tools matters a lot for flexible work to truly succeed. This study, therefore, contributes to both theory and practice by proposing and empirically validating a framework that integrates hybrid work flexibility (predictor), work engagement (mediator), and digital leadership competency (moderator) to explain their collective impact on employee innovative performance.

2.2 Hybrid Work Flexibility and Innovative Performance

Organizations these days commonly offer employees flexibility in their hours and place of work. As a result of this flexible work structure, employees are more likely to achieve balance in their work and personal life, feel more secure, experience more autonomy, and support innovations in their actions (Jiang et al., 2023). Hybrid work models in Pakistan's corporate and service sectors allow employees to focus more effort on jobs that add value and require creativity because urban crowding and long commutes are usual.

The Job Demands–Resources (JD-R) theory gives strong support to the idea that hybrid work benefits innovation. According to the theory, having control, decision power, and flexibility in work cuts down on stress and encourages people to boost innovation (Effiyaldi et al., 2025). In a hybrid workplace, employees often feel that their jobs and schedules are in their hands, so they have time for deep work that encourages creativity and new ideas (Zhang et al., 2024).

These statements are backed up by recent investigations and findings. A research study by Yozi & Mbokota (2024) revealed that employees became much more adept at coming up with innovative solutions when performance measures and digital systems were a part of their hybrid work setup. We see this most clearly in Pakistan, where modern technology has been introduced in urban organizations after the pandemic. Likewise, Effiyaldi et al. (2025) suggest that workers can feel empowered by hybrid work, resulting in them taking more risks and doing less predictable jobs, crucial for creativity.

Yet, if hybrid work is to result in better innovation, it depends on excellent managerial practices and digital leadership. When there is no proper coordination, employees might not communicate well, be confused about their duties, and interact less, resulting in a lack of new ideas (Effiyaldi et al., 2025). Therefore, employees in these environments need digital tools, online meeting platforms, and support from their leaders. Both private IT businesses and educational institutions in Pakistan are using the hybrid model, as is common globally now. Because they can adapt their schedules, employees can handle family matters and job responsibilities, which helps them feel more satisfied and mentally healthier and, in turn, increases their creativity at work. As mobile devices and cloud services become more available in cities, there is a greater chance of innovations in hybrid work (Zia et al., 2024).

Many employees in hybrid workplaces find they face fewer distractions than when in the regular office setting. Thus, you can pay closer attention, organize your time, and reflect on ideas, all important factors for innovation. When there is flexibility, accountability, and strong leadership, it encourages innovative actions in a company (Datta et al., 2025). However, according to JD-R theory and backed by current studies, it can lead to more employee innovation through the autonomy it provides, less work stress, and higher engagement levels. Therefore, hypothesized that:

H1: Hybrid work flexibility positively affects employee innovative performance.

2.3 The Mediating Role of Work Engagement

Work engagement is best known to be a satisfying state of mind at work, including vigor, dedication, and being fully engaged (Schaufeli et al., 2002). It helps explain the role of employees' will to go above and beyond in efforts involving creativity and innovation (Abualigah et al., 2021).

Flexibility is the main job resource according to the Job Demands–Resources model, and it helps improve engagement, which makes employees more likely to show good performance and increased innovation (Tang & Ishak, 2025). Researchers from Pakistan showed in the (Shahzad, 2023) using a hybrid system, instead of remote work, results in employee satisfaction and makes remote work more likely to be understood by managers as productive.

People began to have more choice over workplaces and schedules because of the COVID-19 pandemic. Many studies confirm that it has many useful effects. The meta-study discovered a

meaningful positive connection between flexible working arrangements and aspects of employee performance (ŞİŞÜ, 2023), for instance, efficiency, innovation, and well-being. Moreover, knowledge workers, with flexible arrangements, greatly increased their efforts to innovate by boosting inner motivation and helping them match their energy and creativity to their work (Yozi & Mbokota, 2024).

Hybrid work flexibility (HWF) enables employees to decide when and where to work, and this increases motivation and psychological well-being. Such independence promotes work engagement (WE), a condition of vitality, effort, and focus, which has a positive relation to innovative behavior. Flexible work arrangements are defined in the Job Demands-Resources (JD-R) model as a job resource that heightens engagement, thus inflating innovation (Montani et al., 2020). This mediating relationship is confirmed by studies. As an example, (Jindain & Gilitwala, 2024) revealed that geographic flexibility improves productivity via engagement. Similarly, (Yozi & Mbokota, 2024)) evidenced that engagement mediated the connection between work flexibility and innovative outputs. Thus, H2 is suggested:

H2: Work engagement mediates the relationship between hybrid work flexibility and employee innovative performance

2.4 Digital Leadership Competency, Hybrid Work Flexibility, and Innovative Performance

Hybrid working flexibility (HWF) has been a sensible change of movement within organizations with hybrid working. The environment is dynamic enough to facilitate the autonomy of employees, a balance between work and life, and increased working results. Despite the prior studies indicating a positive connection between the flexibility of hybrid work and work engagement (WE) (Standal & Kristensen, 2022). This relationship does not apply to every single context. One of the most significant moderating factors that may define this type of relationship is that of digital leadership competency (DLC).

The area of digital leadership competency is stipulated as the ability of a leader to make use of digital technologies, virtual teams, organization, and a digitally welcoming organizational culture (Mollah et al., 2025). In the case of hybrid workspaces, employees tend to get irritated due to the lack of comfort of utilizing digital resources to accomplish their duties, communicate with their colleagues, and connect to the management team. This kind of atmosphere can be created with the help of leaders who have a high level of digital competencies to help by carrying out the smooth integration of technology, helping in the right moments, and contributing to digital upskilling. This, subsequently, makes the employees more confident in the digital structure of the organization and helps them to get more psychologically involved in the work (Zia et al., 2024).

In the job Demands-Resources (JD-R) model, leadership is considered a crucial organizational resource that influences the motivation process that leads to engagement. Coupled with a high level of digital leadership competency, hybrid work flexibility results in the employees having the perception that fewer digital obstacles, more pro-social communication and superior orientation to organizational objectives exist. Such synergy allows the motivation potential of hybrid work to grow and contributes to rising work engagement (Datta et al., 2025), The adaptive qualities of flexibility, on the other hand, may get overwhelmed by poor communication, digital burnout, and lack of support in settings with minimal digital competency to the point of low employee engagement. Therefore, proposed that:

H3: Digital leadership competency moderates the relationship between hybrid work flexibility and work engagement, such that the relationship is stronger when digital competency is high.

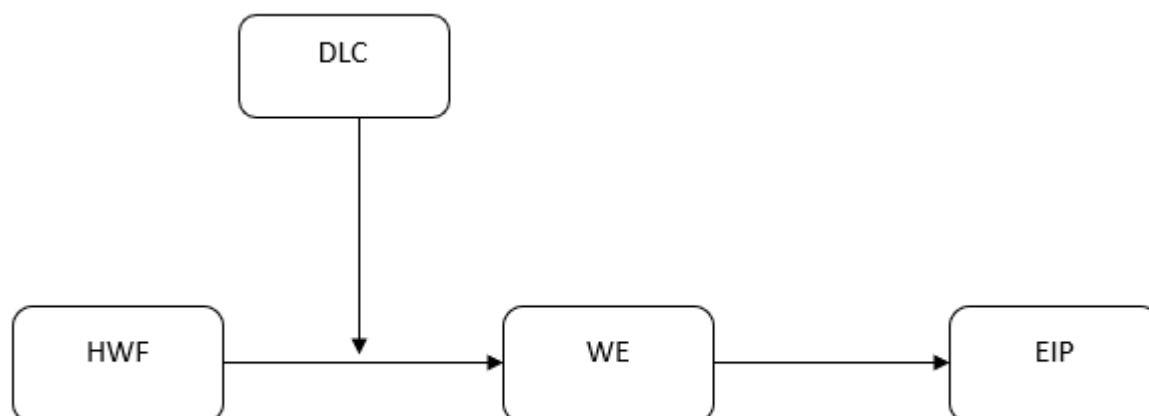


Figure 1: Conceptual Framework

3. Research Methodology

3.1 Sample and Data

In the first half of 2024, data was collected from small- and medium-sized IT firms in Lahore, Karachi, and Islamabad, the main cities in Pakistan. The sample was selected at random to increase its representativeness and reliability. Human resource managers from the chosen IT companies were informed and briefed about the aim and confidential rules of the research. Once the agreement was reached, HR departments gave access to the lists of employees in hybrid or flexible roles.

To make the study applicable to many IT workers in Pakistan, random team members were selected from the lists. The team chose to use random sampling to ensure that the data included a variety of jobs, organizational positions, and hybrid ways of working across several companies. The research team obtained approval from an ethical committee before distributing the survey to the participants and made sure everyone understood the survey and its implications. To be included, individuals had to currently work in a hybrid way and have at least six months of experience in their role, so they could give meaningful input about hybrid work flexibility, digital leadership, and innovative performance.

3.2. Measurement Scale

Hybrid work flexibility refers to the degree to which employees can choose when and where they work—such as alternating between home and office environments—while maintaining productivity. Therefore, hybrid work flexibility acts as a catalyst for fostering innovation, especially in knowledge-intensive roles. HWF is commonly evaluated by the 8-measurement scale utilized (Datta et al., 2025). Scale items include: I can decide which days to work from home, ‘I can use my judgment to complete a task.

Employee Innovative Performance refers to an individual’s ability to generate, promote, and implement novel ideas that can improve products, services, or processes within an organization. EIP construct adopted 10 scale items via (Wang et al., 2025). Scale items included: ‘I will provide

new ideas to improve the current situation, 'I can transform innovative ideas into actual applications.

Work Engagement refers to a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. WE adopted a 6-item measurement scale from (Janssen, 2000). Scale items included: 'I feel full of energy at my work, 'I am enthusiastic about my job.

Digital Leadership Competency refers to the leader's ability to manage, inspire, and guide teams in a digital environment, leveraging technology to achieve strategic goals. DLC measurement scale adopted 8 items via (Roodt et al., 2025). Scale items include: 'I ensure the team adopts and integrates digital solutions effectively, 'I enable digital communication and knowledge sharing across virtual channels.

3.1.1. Pilot study

With a sample of 30 professionals working in a hybrid environment, they conducted a pilot study to assess the reliability, clarity, and suitability of the research instrument. In the questionnaire, well-validated measurement scales of Hybrid Work Flexibility, Work Engagement, Digital Leadership Competency, and Employee Innovative Performance were all independently measured on a 5 Likert scale. Through an online survey, data were gathered, and Cronbach alpha coefficient has shown a high internal consistency in all the constructs: Hybrid Work Flexibility ($\alpha = 0.83$), Work Engagement ($\alpha = 0.87$), Digital Leadership Competency ($\alpha = 0.89$), as well as Employee Innovative Performance ($\alpha = 0.91$). A few adjustments were made to improve clarity based on the participants' reactions. The findings confirmed that the tool was reliable and appropriate for the main investigation.

3.1.2. Gathering the data and removing errors

Data for this study came mostly from online surveys that were sent and managed electronically. We cleaned the data to ensure the answers were of good quality. Questionnaires that were not answered for at least 5 minutes were excluded from the analysis. The typical time taken to complete the questionnaire during the pilot study was used to establish the standard for the main study. We examined surveys for missing information or conflicting answers to ensure the data's reliability. As a result, we discarded 45 invalid questionnaires, resulting in 295 valid responses.

3.1.3. Response Rate

In total, 340 surveys were sent, and I received 295 useful responses, so the response rate was 86.76%. The involvement of HR personnel made the response rate so high. This large response rate suggests that the subjects of digital leadership and organizational sustainability interest the respondents a lot.

4. Data Analysis

4.1 Demographic Information

The sample contains 295 respondents, where males account for 50.36% and females for 49.64%. The majority of participants were in the age range of 26 to 35 years (54.34%), showing that the group was mostly young or mid-career professionals. Of the surveyed population, 41.49% possessed a bachelor's degree and 29.53% had completed college-level programs. Nearly two-thirds (66.49%) reported working for less than 10 years, and two-thirds of them had known their

leader for less than two years (76.45%). Among the staff, 38.95% were employees and 34.06% were junior managers. The majority of the respondents worked for companies with 51–150 employees. All in all, the sample comprises a group of young, well-educated professionals who work in either small or mid-sized organizations.

Table 4.1 Demographics Variable

Category	Subcategory	(n)	(%)
Gender	Male	149	50.36
	Female	146	49.64
Age	Under 25 years	19	6.34
	26–30 years	71	23.91
	31–35 years	90	30.43
	36–40 years	53	17.93
	41–50 years	40	13.41
	Over 50 years	23	7.97
Education	High school or lower	47	15.76
	College	87	29.53
	Bachelor's degree	122	41.49
	Master's degree	24	8.15
	Doctoral degree or higher	15	5.07
Work Experience	1–5 years	102	34.42
	6–10 years	95	32.07
	11–15 years	43	14.49
	16–20 years	31	10.33
	More than 20 years	24	8.14
Time with Leader	≤ 6 months	37	12.68
	> 6 months and < 1 year	75	25.36
	> 1 year and < 1.5 years	57	19.38
	> 1.5 years and < 2 years	56	19.02
	2 years or more	70	23.55
Position Level	Employee	115	38.95
	Junior Manager	101	34.06
	Middle Manager	71	24.09
	Senior Manager	8	2.9
Company Size	50 or fewer employees	2	0.72
	51–100 employees	97	32.79
	101–150 employees	77	25.91
	151–200 employees	32	10.87
	More than 201 employees	14	4.71

4.2 Confirmatory Factor Analysis (CFA)

CFA is the method for confirming that the grouping of constructs in the model is fitting (Hair, Gabriel, & Patel, 2014). This study gave the following results. χ^2 (p) equals 606.247, with a value of 0.000; χ^2 /df has a value of 1.263, and RMSEA measures 0.022. Besides, both incremental fit

indices, IFI and CFI, are 0.989. Next, parsimonious fit indices indicate that PGFI is 0.802 and PNFI is 0.863. The researchers considered Average Variance Extracted and Composite Reliability values during the study. The values that AVE recorded included Hybrid Work Flexibility of 0.653, Employee Innovation of 0.633, Work Engagement of 0.627, and Leadership Competency of 0.642; all of which surpassed 0.5. For CR to have value, the Hybrid Work Flexibility score should be 0.802, Employee Innovation should reach 0.755, Work Engagement needs to be 0.811, and the Leadership Competency should achieve 0.761. If the AVE is higher than 0.5 and the CR is higher than 0.7, then the factor analysis measurement proves significant validity. Also, all the values for significance were below 0.001. Also, a review of the reliability of the structure is done. According to Cronbach's alpha, Hybrid Work Flexibility got 0.919, Employee Innovation secured 0.896, Work Engagement was 0.913, and Leadership Competency was 0.899. Cronbach's alpha >0.7 means that the result of the reliability analysis will be accepted as valid. The findings are all listed in Table 4.2.

Table 4.2 CR, AVE, and Factor Loading

Construct	F.L	AVE	CR	α
Hybrid Work Flexibility	0.71 – 0.85*	0.653	0.802	0.919
Employee Innovation	0.68 – 0.82*	0.633	0.755	0.896
Work Engagement	0.70 – 0.83*	0.627	0.811	0.913
Leadership Competency	0.69 – 0.84*	0.642	0.761	0.899

4.3 Discriminant validity test

Fornell-Larcker criterion was used to measure the discriminant validity, and it involves dividing the square root of each construct's Average Variance Extracted (AVE) by its correlations against other constructs (Fornell & Larcker, 1981). The results are shown in Table 4.3. The off-diagonal cells identify the inter-construct correlations whereas the diagonal cells indicate the square roots of AVE (written in parentheses). In all four constructs, the square roots of AVE (the bold diagonal entries) are all larger than the respective values in the inter-construct correlations within the same row and column. To illustrate, the square root of an AVE of Hybrid Work Flexibility (0.808) is larger than its correlation with Employee Innovation (0.542), Work Engagement (0.495), and Digital Leadership Competency (0.518). The same tends to be true of Employee Innovation (0.796 > 0.542, 0.523, 0.501), Work Engagement (0.791 > 0.495, 0.523, 0.478), and Digital Leadership Competency (0.801 > 0.518, 0.501, 0.478). These findings meet the Fornell-Larcker criterion and indicate that every latent variable correlates more with its indicators than it does with any other variable. As a result, the measurement model shows sufficient discriminant validity, and these concepts, the Hybrid Work Flexibility, EIP, Work Engagement, and Digital Leadership Competency, are empirically diverse (Hair Jr, Howard, & Nitzl, 2020).

Table 4.3 Discriminant validity

Constructs	1	2	3	4
HWF	(0.808)			
EIP	0.542	(0.796)		
WE	0.495	0.523	(0.791)	
DLC	0.518	0.501	0.478	(0.801)

4.4 Hypothesis Testing

Results from hypothesis testing show that there are several significant relationships within the research model. It was found that there is a significant and positive relation between HWF and EI ($\beta = 0.412$, $t = 5.328$, $p < 0.001$), confirming the research hypothesis 1. Hypothesis 2 mediating effect of WE, was analyzed using SEM. The indirect path, $WE \rightarrow HWF \rightarrow EIP$, is significant with an effect value = 0.389, $p < 0.001$, and a 95 % bootstrap confidence interval excluding zero. This shows that WE culture plays a significant mediating role between HWF and EIP. H2 was verified. Moreover, the moderating effect of digital leadership capabilities was analyzed using SEM. The indirect path, $DLC \rightarrow HWF \rightarrow EIP$, is significant with an effect value = 0.172, $p < 0.006$, and a 95 % bootstrap confidence interval excluding zero. This shows that DLC plays a significant moderating role between DLC and EIP. H3 was verified.

Table 4.4 Hypothesis Association

Path	β	t-value	p-value	Result
HWF $\rightarrow$ EIP	0.412	5.328	< 0.001	Supported
WE $\rightarrow$ HWF $\rightarrow$ EIP	0.389	4.751	< 0.001	Partial mediation
DLC $\rightarrow$ HWF $\rightarrow$ EIP	0.172	2.753	0.006	Moderation Supported

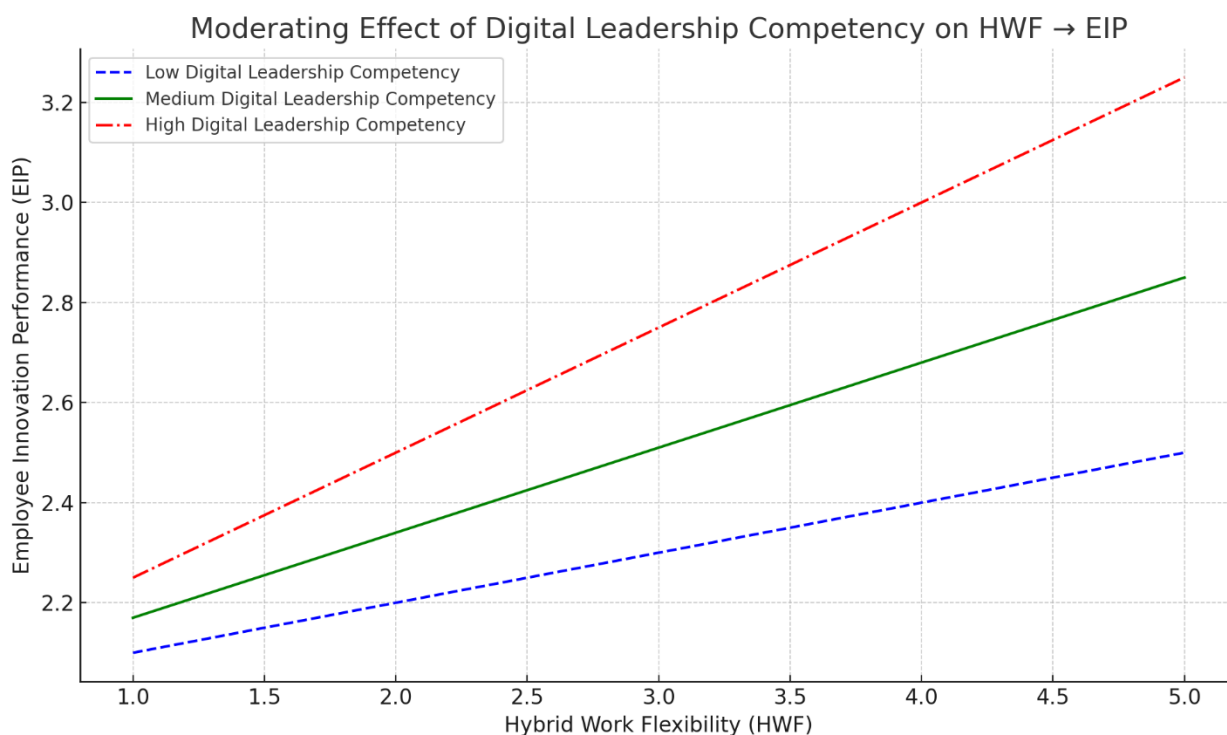


Figure 2: Slope Analysis

5. Discussion

The present study shows that workers in companies with hybrid flexibility and digital abilities of their senior leaders are more involved and creative. Under the JD-R theory (Tang & Ishak, 2025). This research demonstrates that flexibility can encourage and motivate people at work. Consistent

with what has been discovered before in Serbia (Radonić, Vukmirović, & Milosavljević, 2021), allowing flexible planning in IT firms creates more engagement at work, which helps drive innovation in Pakistani organizations (Anser, Yousaf, Khan, & Usman, 2021; Awais et al., 2023). Moreover, this study broadens the field by showing that DLC is able to influence the pathway. (Yasir, Majid, Yousaf, Nassani, & Haffar, 2023) believe that digital fluency enables leaders to work with hybrid teams, while (Barkat, Waris, Ahmed, & Dad, 2024) confirm in Pakistan that digital leadership gives rise to both flexibility and innovative work in the public sector. From our results, it appears that leaders with strong DLC help boost the positive role of flexibility on engagement. These discoveries accord with JD-R theory (Bakker, Demerouti, & Sanz-Vergel, 2023) confirming that leaders' qualities play a role in how organizations function. Hybrid leadership has the same positive outcomes as in Pakistan's public sector, strengthening team members' dedication and encouraging innovation (Saeed & Daud, 2023). The study further shows that digital leadership plays an important role in hybrid IT environments.

Even so, there are still key areas where research needs to be done. Therefore, most prior studies, including ours, use cross-sectional data, which do not allow for making clear cause-and-effect conclusions. Because hybrid work and digital transformations keep changing over time, experimental or longitudinal studies should be done to check if effects occur in one direction and whether they are similar to or different from each other. In the same way, investigating healthcare, education, and manufacturing would be useful since recent research in Pakistan (Zia et al., 2024) demonstrates that WE and HWF play a big role in motivating and engaging workers through remote operations.

Also, we found that there are other factors like HWF and EIP culture that are not being fully analyzed. However, DLC quality must be explored with HWF and EIP culture, which is necessary to explain the complex interactions in the organization. Managers need to develop skills in leadership and technology, as (Zia et al., 2024) discovered in their article on Pakistan in 2024.

5.1 Practical Implications

The results here suggest several important steps to be followed by employees, policymakers, and HR managers in the changing IT sector of Pakistan. The research demonstrates that hybrid work flexibility is a key job resource that helps inspire interest in work and promotes new ideas from employees. After the pandemic, organizations ought to include hybrid work strategies in their future HR and operational plans, since many people now expect them to be standard (Muneer et al., 2024). Giving staff the freedom to make their schedules and choose their workspaces can greatly increase their motivation, imagination, and commitment.

Also, since digital leadership competency affects results, organizations should offer flexibility AND focus on developing digital leaders. Those who are comfortable with technology and able to lead remote teams, use online tools, and keep virtual communications are more likely to help employees engage better while hybrid working (Zia et al., 2024). Digital competency training should be introduced in leadership development plans within HR, with priorities on online teamwork, cybersecurity, and skills relating to digital emotions.

In addition, if leaders show adaptive behaviors and support new ideas, it can boost the positive effects of hybrid work. It is more essential in countries like Pakistan as digital transformation is making progress, even though they struggle with infrastructure gaps and lack proper training (Saeed & Daud, 2023; Yasmeen et al., 2024).

5.2 Theoretical Implications

By using different approaches, this study provides useful contributions to many areas of theory. First, it validates a part of the JD-R model that recognizes that greater flexibility in hybrid work helps workers focus, be more committed, and therefore leads to more innovative results (Bakker & Demerouti, 2007). As a result, this study endorses previous studies by proving that work engagement serves as a mediator in hybrid work environments in South Asia (Afsar et al., 2015; Schaufeli et al., 2002).

Second, the study adds Digital Leadership Competency (DLC) as an important factor that affects the JD-R framework. It shows how leadership skills can support or block the link between talent and business performance. Following the Upper Echelons Theory (Hambrick, 2007), leader features affect both the methods and the results within an organization. As a result, the study links theories of leadership with recent models of work design that are found in digital settings.

In addition, the results suggest that DLC supports firms' strategies, mainly in hybrid digitally-enabled structures. As a result, e-leadership grows and creates space to integrate leadership traits associated with technology in organizational behavior theories (Avolio et al., 2014).

5.3 Limitations

However, there are certain limitations when it comes to this study. First, the researchers chose a cross-sectional method, so it was hard to prove that variables are related. There may be influence from reciprocal or third-variable effects, and carrying out longitudinal research can make the results more reliable.

Also, using employees' self-reported information in the study might have contributed to common method bias. Yet, learning more from the supervisor or others in the workplace may be helpful to counter this risk.

As a third point, the research focuses mostly on Pakistan's IT sector in cities, so results should be interpreted accordingly. The practices in workplaces, the technology found there, and the approach to leadership can be different from one industry to another or from rural to urban areas. So, the findings might not match the experiences in healthcare, education, or manufacturing.

Next, the study did not include any control for personality, digital skills, and mental flexibility, although there is evidence these can affect involvement and creativity (Yasmeen et al., 2024).

5.4 Future Research Directions

Because of the limitations described above, some promising ideas for further research are presented. First, research should be done using designs that study how engagement and innovative performance develop over a period of time. With such designs, researchers could see how changes in work models affect the mentioned earnings differences as they are adopted.

In the second place, future studies would benefit by gathering data from different sources to eliminate common method bias and enhance the accuracy of results. If you review information from supervisors, HR reports (such as performance appraisals), and digital monitoring tools (for example, records of using a collaboration platform), you can better understand people's responses.

Also, investigating how policies work in different parts of the country would greatly help researchers in their conclusions. In the IT sector of Pakistan, some relationships have been proposed, but repeating this study in health, banking, educational, and manufacturing areas both in rural and urban areas could help understand if these relationships apply in different areas also.

Further studies should consider how people's digital abilities, emotions, mindset, and ways of learning fit into the equation. Employees' personal characteristics may decide how they react to a combination of office and remote work, as well as how they view their leaders' digital abilities, which ultimately affects their involvement and new ideas at work (Tunio, 2024).

The next step should be to examine cultural moderators, especially in places like Pakistan, where people tend to be more aligned with the community. How big the power distance is, the level of uncertainty avoidance, and the social harmony in the culture could shape both leadership and the way teams work, prompting engagement and encouraging new ideas. By looking into these connections, Western theories like Job Demands-Resources model would make more sense in South Asian countries.

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