

Data Driven HR, Empowered Employees: Unlocking Innovation through Digital Capability and Leadership

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Abstract

This paper examined the Digital HRM Practices and HR Analytics Capability increase Innovative work behavior (IWB) in the mediating factor of Employee Empowerment and the moderating factor of Transformational Leadership. Based on the data of 470 men and women in the service industry of Pakistan, the results indicate that the digital HRM and HR analytics play an important role in enhancing empowerment, which consequently leads to the innovative work behavior of the employees. Transformational leadership also enhances the empowerment-IWB relationship, which upholds the mediation process as moderated. The findings combine AMO Theory, RBV, and Transformational Leadership Theory, and empowerment is the main psychological avenue by which digital HR systems can be turned into innovation. The research contributes to the body of literature on HRM and innovation as it illustrates the extent to which digital capability, empowerment, and leadership are interconnected to influence the results of innovation in an emerging market. Visual practice and policy implications provide a guide to the design of digitally empowered and enabled workplaces.

Keywords: Digital HRM Practices, HR Analytical Capability, Employee Empowerment, Transformational Leadership, and Innovative Work Behavior

Introduction

The quick pace of digitalization has transformed the organizational systems around the world, and still, companies in the developing economies like Pakistan are yet to

make significant strides in terms of utilizing digital HR practices to realize significant behavioral outputs among employees. Although the Pakistani organizations have invested in e-recruitment, HR information systems, digital performance management, and AI-enhanced HR processes, the country experiences long-term problems associated with low employee engagement, little autonomy, and poor innovation culture (Siddiqui and Malik, 2023; Khalid et al., 2024). The problems are critical due to the empirical connection that exists between Innovative Work Behavior (IWB) as the capacity of employees to come up with, promote, and make new ideas operational in the entire organization in the context of the SME, telecom, and services sectors of Pakistan (Matloob et al., 2023; Matloob et al., 2025). Nevertheless, the processes by which digital HR practices are converted into IWB is not well researched, especially in the hierarchical and collectivist systems such as Pakistan where empowerment and leadership support are decisive.

The recent flow of studies highlights the importance of HR Analytics Capability as one of the strategic HRM functions, which increases organizational transparency, evidence-based decision-making, and higher employee awareness of organizational processes (Awan and Javed, 2024). However, in Pakistan, the lack of capabilities - low analytical literacy, resource shortage, and data-averse attitudes to HR are obstacles to successful implementation (Rehman and Bhatti, 2023). This raises a serious issue: despite the growth of digital HR systems, employees are not usually empowered, which restricts their desire to become innovative. This difficulty is consistent with the theory of Ability-Motivation-Opportunity (AMO) where it is contended that the HR practices do not affect performance unless employees are able, motivated and opportunity to exercise it. There can be the opportunity created by digital HR and HR analytics, and innovative behaviours can be triggered by employee empowerment.

Moreover, the Resource-Based View (RBV) implies that the digital HR infrastructure and analytics capabilities are strategic resources that may lead to the creation of a competitive advantage. Nevertheless, these resources can generate value only in the case of their conversion into employee-level capabilities- e.g. empowerment and innovation. This reveals a theoretical gap since RBV cannot solely be used to explain the behavioural pathway through which digital HR resources affect IWB. The inclusion of Empowerment Theory helps in filling this gap because it places empowerment as the tool that transforms digital HR capabilities into innovative results.

Moreover, the empirical studies demonstrate that Transformational Leadership enhances empowerment, intrinsic motivation, and risk-taking - the antecedents of IWB (Munir et al., 2025; Khan & Ahmed, 2023). Nevertheless, there is little information regarding the impact of transformational leadership on empowerment-IWB relationship within technologically changing Pakistani working environments where leadership tends to be transactional and compliance-based.

Thus, this research fills a serious gap as the mediated model is built to test the impact of Digital HRM Practices and HR Analytics Capability to improve IWB with the help of Employee Empowerment, and the presence of Transformational Leadership to

reinforce the effect. This model builds on the theory, which unites AMO, RBV and Transformational Leadership Theory to describe the mechanisms through which the digital HR capability generates employee level innovation within a new market.

Literature Review

Variable Description

Digital HRM Practices

Digital HRM practices are the use of technologies in HR practices, e-recruitment, HRIS, e-performance management and self-service HR portals. The systems increase transparency, accuracy of data and accessibility by employees, increasing the quality of HR service delivery and organizational responsiveness (Khalid et al., 2024). The adoption of digital HRM has been rising in Pakistan in the banking, telecom, and higher education sectors, despite the barriers associated with digital maturity, change resistance, and skills gaps (Siddiqui and Malik, 2023). The opportunities that digital HRM is theorized to introduce to the employees, namely, the possibility of being autonomous and simplify HRM processes, are consistent with AMO theory. Empowerment can be reinforced and positive employee behaviors can be developed with the help of effective digital HRM.

HR Analytics Capability

HR Analytics Capability entails the skill of the organization to gather, compute, and apply HR-related information to aid in strategic decision-making. The current analytics tools allow predicting turnover, assessing skills shortages, and enhancing the accuracy of HR interventions (Marler and Boudreau, 2023). Adoption of analytics is still viewed as a weak aspect in Pakistan because of the lack of analytic skills, poor data management, and cultural resistance, but large service-based companies tend to consider analytics a strategic tool (Awan & Javed, 2024). HR analytics is a resource of value in the RBV lens since it improves fairness, transparency, and evidence-based HR decisions, which increase employee empowerment and resultant innovative behaviors.

Employee Empowerment

Employee Empowerment displays freedom of the employees, access, and their feeling that they can shape the results of the organization. The empowered employees will become competent, trusted, and motivated to engage in contribution proactively which will increase creativity and performance (Bashir and Rana, 2024). Centralized decision-making and supervisory control limits empowerment in the hierarchical organizational culture of Pakistan (Khan and Ahmed, 2023). Empowerment may be enhanced by Digital HRM and analytics that can help increase transparency of processes, decreasing the level of administrative dependency, and providing self-directed access to HR information. In the AMO theory, the concept of empowerment is the manifestation of the opportunity to act, which is an important mechanism that can connect HR practices and innovative work behavior.

Innovative Work Behavior

Innovative Work Behavior (IWB) is the development, fostering, and implementing innovative ideas in order to enhance products, processes, or services. IWB is essential in organizational flexibility, relentless enhancement, and competitive edge. Pakistan has shown that IWB has a positive impact on SME performance, service recovery, and organizational resilience in general (Matloob et al., 2023; Matloob et al., 2025). Workers who are empowered will be more willing to get in the process of generation and experimentation of ideas because of the confidence and freedom that they have. Organizational support, leadership, and digitalization also affect IWB since they determine the readiness of employees to take initiative and take positive risks.

Transformational Leadership

Transformational Leadership (TL) is the one that is enjoyable and visionary, inspirational and intelligent, individual and considerate. TL promotes psychological safety, creativity, and intrinsic motivation- elements that are pertinent in innovative work behaviour (Khan and Ahmed, 2023). TL has been demonstrated to enhance employee performance and the innovation process in Pakistan especially in SMEs and service industries where the autonomy of employees is greatly affected by the behavior of a leader (Munir et al., 2025). TL empowers as employees will take initiative and challenge assumptions. TL also amplifies the impact of empowerment on IWB in that it provides gaining conditions where the empowered employees feel comfortable taking part in innovation.

Theoretical Linkages

The conceptual framework relies on three theoretical underpinnings, including Ability-Motivation-Opportunity (AMO) Theory, the Resource-Based View (RBV), and Transformational Leadership Theory (TLT), to determine the connections between Digital HRM Practices and HR Analytics Capability and the Employee Empowerment and Innovative Work Behavior (IWB).

Appelbaum et al. (2000) developed AMO Theory, which assumes that the performance of employees will come about when there is a possibility, motivation, and ability to contribute to it. Digital HRM Practices improve the dimension of opportunities by providing more access to information, transparency, and autonomy via self-service systems. HR Analytics Capability enhances power and inspiration because it promotes equitable, data-driven HR actions that enhance trust and transparency in organizational operations.

Resource-Based View is based on the claim that valuable, rare, inimitable, and non-substitutable resources allow firms to achieve sustainable competitive advantage (Barney, 1991). Such strategic resources are digital HRM and HR analytics. But RBV points out that resources do not generate value until they become transformed into the employee level capabilities. This conversion mechanism is called Employee Empowerment, which allows employees to change digital HR capabilities into innovative behaviors by being initiative, creatively applying digital tools, and generating new ideas.

The moderating role is justified by the Transformational Leadership Theory that was offered by Bass (1985). Transformational leaders create a vision that is shared, inspire creativity, and increase psychological safety, which leads employees who have been empowered to be more willing to risk and take part in innovation. Therefore, TLT enhances the connection between IWB and empowerment by creating an atmosphere in which empowered workers would be able to translate autonomy into innovative results to the fullest.

These theories are logical in combination to aid the moderated mediation model of the study.

Hypotheses Development

Digital HRM→Employee Empowerment

Digital HRM Practices increase transparency, accessibility and autonomy by digitalizing the main HR functions, and the latter directly promotes the feeling of empowerment among employees. Once employees are allowed to monitor performance, handle HR activities, and access information on their own via self-service systems, the employees will have more control and perceived competence and less dependence on supervisors. The theory of AMO (Appelbaum et al., 2000) suggests that positive employee behaviors cannot be activated without structural opportunities and digital HRM can create them by making things easier and more engaging. Recent research has indicated that digital HRM is an important contributor to employee empowerment due to the increased system fairness and procedural clarity (Khalid et al., 2024; Farooq & Shah, 2024). Digital HR tools are transformative in a hierarchical environment characterized by limited autonomy, where people in Pakistan expect to face bureaucratic restrictions and a sense of low perceived organizational support (Siddiqui & Malik, 2023). Thus, according to AMO and the observations, digital HRM will have a positive impact on employee empowerment.

H1: Digital HRM Practices positively affect Employee Empowerment.

HR Analytics Capability→Employee Empowerment

HR Analytics Capability helps to enhance empowerment by facilitating evidence-based HR decision-making, improving transparency, and minimizing bias. Employees feel empowered when they see that organizations can make decisions based on merit and development requirements, as well as predict performance, using analytics because they feel fairly treated and clearly explained. AMO Theory (Appelbaum et al., 2000) demonstrates that analytics enhance the capacity and motivation, through defining skill deficiencies and offering specific developmental interventions. Findings obtained through empirical research indicate that HR analytically enhances trust in HR and employee sense of control (Awan & Javed, 2024; Marler and Boudreau, 2023). In a country such as Pakistan, which is an emerging economy, the use of analytics has been linked with a greater perceived fairness, data-based appraisal, and employee confidence (Rehman & Bhatti, 2023). Analytics helps employees to understand more about the expectations of the performance and the decisions made by

the organization thus developing the psychological empowerment. In such a way, it can be logically assumed that HR analytics capability will grow empowerment.

**H2: HR Analytics Capability positively affects Employee Empowerment.
Employee Empowerment → Innovative Work Behavior**

Employee Empowerment boosts innovative Work Behavior (IWB) by strengthening autonomy, intrinsic motivation and initiative taking. The employees who feel empowered develop a sense of psychological safety and feel responsible to enhance processes hence they create, sell and adopt novel ideas. According to the Empowerment Theory (Spreitzer, 1995), empowered people are more creative and involve themselves more in problem solving. The recent findings in Pakistan support the idea that empowerment is a significant predictor of IWB as it provokes the confidence of employees and proactive attitudes (Bashir and Rana, 2024). The research in the Asian and emerging-market environments reveals the same outcome, as empowered employees become more active in the idea generation and experimentation (Kim et al., 2022). In addition, RBV (Barney, 1991) states that motivated human resource qualifies as a strategic resource that facilitates organizational innovation. Empowerment in the Pakistani organizational structure is especially effective since it overcomes the conventional prohibitions and the promotion of positive risk taking. Thus, it is projected that empowerment will have a very strong stimulating effect on the innovative behavior.

**H3: Employee Empowerment positively affects Innovative Work Behavior.
Digital HRM → Empowerment → Innovative Work Behavior (Mediation)**

There are expectations that the Digital HRM Practices will have an indirect impact on IWB via Employee Empowerment. Digital HRM improves employee independence, access to information, as well as, unbiasedness, which reinforces the process of empowerment, a critical psychological process in innovation. Digital HRM offers the opportunity structures that facilitate the empowered behaviors based on the AMO Theory (Appelbaum et al., 2000). Employees who are empowered have more chances of taking initiative and coming up with new ideas. This mediation process is proven by empirical research: digital HR systems have a considerable effect on empowerment, which, in turn, leads to a growth of creativity and innovative behavior (Khalid et al., 2024; Farooq & Shah, 2024). This logic is further supported by RBV (Barney, 1991) which claims that digital HR resources only create performance value through conversion into power capabilities, like empowerment. Digital HRM in Pakistan has been demonstrated to promote a state of autonomy and less dependence of supervisors, which results in more proactive work behaviors (Siddiqui & Malik, 2023). Therefore, the process connecting digital HRM and IWB is empowerment.

H4: Employee Empowerment mediates the relationship between Digital HRM Practices and Innovative Work Behavior.

5HRAnalyticsCapability→Empowerment→IWB (Mediation)

The HR Analytics Capability will have an indirect effect on the IWB by establishing empowerment. HR analytics offers transparency, evidence-based judgments, and personalized growth trajectories, which increase the perceived level of control and psychological empowerment of employees. The AMO Theory postulates that analytics enhances capacity and motivation by generating specific skills and performance information (Appelbaum et al., 2000). The empirical studies have established the fact that HR processes that are supported by analytics enhance empowerment through greater fairness and transparency (Awan & Javed, 2024; Marler & Boudreau, 2023). According to RBV (Barney, 1991), analytics can be converted into human capabilities only to become a source of innovation. Empowered employees apply digital insights and experiment, solutions, and in the process of innovation. Pakistan evidence indicates a higher adoption of analytics results in high employee participation and engagement (Rehman & Bhatti, 2023). Therefore, the process that HR analytics is empowered to initiate IWB is empowerment.

H5: Employee Empowerment mediates the relationship between HR Analytics Capability and Innovative Work Behavior.

Transformational Leadership Moderates Empowerment→Innovative Work Behavior

The relationship between empowerment and IWB is supposed to be enhanced by Transformational Leadership. Transformational leaders are inspiring, foster creativity, offer emotional support, and establish psychological safety, all of which are important to enable the empowered employees to convert autonomy to innovation. Such leaders, as per the Transformational Leadership Theory (Bass, 1985), increase intrinsic motivation and risk-taking. Empirical evidence indicates that transformational leadership strengthens the innovative behaviour particularly in collectivist and hierarchical cultures (Khan & Ahmed, 2023; Munir et al., 2025). Transformational leaders in Pakistan overcome the conventional inflexible systems, and empowered employees can freely create and execute ideas. In inspirational leadership that is backed with empowerment, employees feel more empowered to experiment and offer new solutions. Therefore, transformational leadership increases the power of empowerment-IWB relationship.

H6: Transformational Leadership positively moderates the relationship between Employee Empowerment and Innovative Work Behavior.

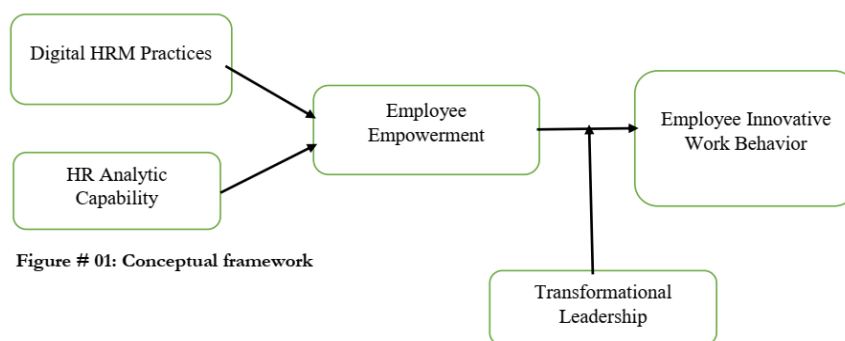


Figure # 01: Conceptual framework

Methodology

Research Design

This research is quantitative and cross-sectional research design because it aims to establish the moderated mediation model between Digital HRM Practices, HR Analytics Capability, Employee Empowerment, Transformational Leadership, and Innovative Work Behavior (IWB). The survey-based approach will be suitable since the constructs are perceptual and psychological processes at the employee level that is best met by self-reported actions (Podsakoff et al., 2012). PLS-SEM was selected as the analytical method because it is appropriate when dealing with complicated models, non-normal data, and predictive orientation (Hair et al., 2022).

Population and Sampling

The target group will consist of full-time staff members in the banking, telecommunication, IT service, and institutions of higher learning in Pakistan, where the digitalization of HR is fast. The non-probability purposive sampling approach was relied on to select employees who have direct contact with digital HR systems or processes that have been enabled with HR analytics. A sample of over 350-500 responses suffices according to the PLS-SEM recommendations of at least 10 observations on a given structural path (Hair et al., 2022). In order to increase the generalizability, data are gathered in various cities such as Karachi, Lahore, Islamabad and Faisalabad final sample of 470 was taken to evaluate the measurement and structural model.

Data Collection Procedure

The structured online questionnaire was used to collect data with the help of Google Forms. The respondents were accessed with the help of organization HR departments and professional networks. The respondents participated on a voluntary basis and the question was anonymous and no incentive was provided to prevent the respondents'

biases. A pilot with 40 employees was done before the actual survey in order to test the clarity, reliability and wordings. Products that were ambiguous were scaled up.

Measurement of Constructs

All constructs were measured using validated multi-item Likert scales (1 = strongly disagree, 7 = strongly agree):

Digital HRM Practices: 6 Items adapted from recent digital HR studies (Khalid et al., 2024; Siddiqui & Malik, 2023).

HR Analytics Capability: Measured through 6 items using scales capturing analytic skills, data infrastructure, and decision-making accuracy (Awan & Javed, 2024; Marler & Boudreau, 2023).

Employee Empowerment: Assessed using Spreitzer's (1995) psychological empowerment scale with six items.

Innovative Work Behavior: Measured using Janssen's (2000) uni-dimensional IWB with six items.

Transformational Leadership: Measured with 6 items using Bass and Avolio's (1995) MLQ short form.

All scales demonstrated strong reliability and validity in prior literature.

Common Method Bias Control

To solve CMB, a number of procedural and statistical solutions were used. Anonymity of respondents guaranteed and no socially desirable responses required. Psychological distance between predictors and outcomes that are enforced by section breaks. VIF full collinearity is < 3.3 (Kock, 2015) which makes sure that there is no CMB.

3.5 Data Analysis Strategy

Data were modeled with the help of the SmartPLS 4.0, as it was in accordance with the two-step approach: The reason behind the choice of PLS-SEM is that it is highly capable of dealing with complex models, smaller samples, and non-normal data, and it has a high predictive power, which is required of HRM research in emerging markets. (Hair et al 2022)

Findings and Analysis

Measurement Model

The assessment of the measurement model has a high level of reliability and validity of all the constructs, and these indicate that the indicators are able to measure the corresponding latent variables. All items have factor loadings that are greater than the recommended factor loading of 0.70 (Hair et al., 2022), meaning that each of the items can be considered to contribute significantly to its construct. The digital HRM Practices have loadings that are between 0.774 and 0.825, which is a consistent and

clear construct. There are also good item loadings in Employee Empowerment (0.746 to 0.852), which indicates that the perception of employees of autonomy, competence, and impact are reliable. The items of HR Analytics Capability have a loading of 0.706 to 0.795, the indicators of which have acceptable levels of reliability, and testaments to the fact that the skills and data-driven decision-making in the analytics domain are well-measured.

The construct quality is also supported by the internal consistency reliability results. The alpha of all the constructs is reported to be between 0.846 and 0.882, which is higher than the 0.70 minimum. The Composite Reliability (CR) scores in the range of 0.886 through to 0.910 confirm that both constructs show that there is no redundancy in the internal consistency. AVE values range between 0.566 and 0.629 confirm convergent validity, which is above the recommended value of 0.50 and demonstrates that each construct explains over half the variance of its indicators.

Innovative Work Behavior has high loadings (0.717 to 0.841), high CR (0.910), and Transformational Leadership also has sufficient indicator reliability (0.736-0.814) and convergent validity (AVE = 0.619). On the whole, these findings prove that the measurement model meets the requirements of the measures of indicator reliability, internal consistency, and convergent validity, as well as indicate that the model can be used in the future in further structural analysis.

Table # 01
Reliability and Validity

Factor	Loadings	alpha	CR	AVE
DHRM		0.882	0.910	0.629
DHRM1	0.804			
DHRM2	0.796			
DHRM3	0.774			
DHRM4	0.777			
DHRM5	0.781			
DHRM6	0.825			
EMP		0.879	0.909	0.624
EMP10	0.746			
EMP2	0.765			
EMP3	0.852			
EMP4	0.773			
EMP5	0.796			
EMP6	0.803			
HRAC		0.846	0.886	0.566
HRAC1	0.775			
HRAC2	0.746			
HRAC3	0.780			
HRAC4	0.707			
HRAC5	0.706			
HRAC6	0.795			
IWB		0.882	0.910	0.628
IWB1	0.841			
IWB2	0.717			
IWB3	0.779			
IWB4	0.774			
IWB5	0.815			
IWB6	0.822			
TL		0.877	0.907	0.619
TL1	0.736			
TL2	0.814			
TL3	0.784			
TL4	0.794			
TL5	0.790			
TL6	0.802			

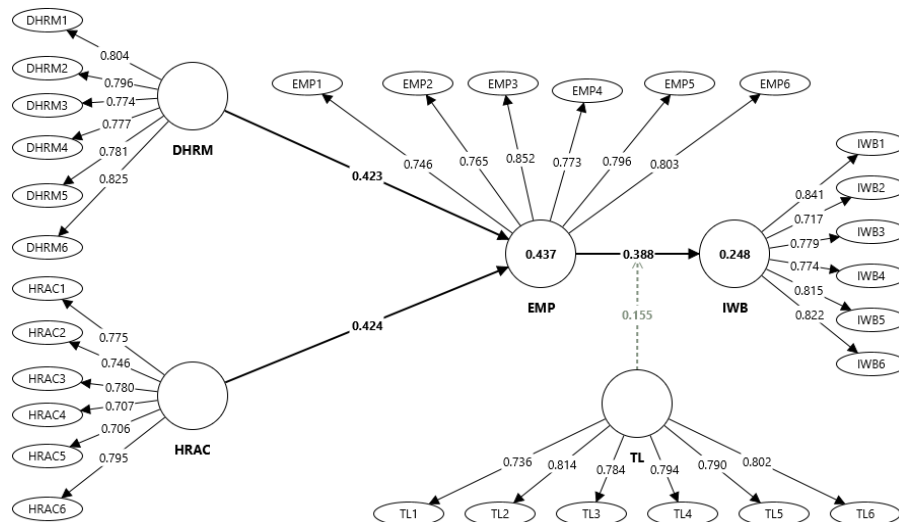


Figure # 02: PLS algorithm

Discriminant Validity

The results of the HTMT indicate that the validity of all constructs has a strong discriminant value. Henseler et al. (2015) recommend that the values of HTMT are not to exceed 0.85 (strict criterion) or 0.90 (lenient criterion). The entire HTMT ratios in Table 02 are within acceptable ranges, with the ranged values of 0.233 to 0.598, which means that each construct is empirically different than the others. The maximum HTMT value (EMP-HRAC = 0.598) does not exceed the recommended value, which proves that there is nothing to worry about in terms of construct overlap. These findings support the view of the proposed research that Digital HRM Practices, HR Analytics Capability, Employee Empowerment, Innovative Work Behavior, and Transformational Leadership demonstrate distinct theoretical dimensions.

Table # 02
HTMT Criteria

	DHRM	EMP	HRAC	IWB	TL
DHRM	■				
EMP	0.583	■			
HRAC	0.250	0.598	■		
IWB	0.325	0.466	0.321	■	
TL	0.234	0.242	0.233	0.337	■

Multicollinearity

The results of VIF shows that there is no concern of multicollinearity in the measurement model. Hair et al. (2022) note that VIF under 3.0 is regarded as suitable collinearity, and still under 5.0 is safe in social sciences. All the points in Table 03 are within the 1.50-2.40 range, which proves that there are no problematic redundancies in indicators. The comparatively low values of VIF indicate that every single item brings a distinct variance to various constructs. Therefore, the data address the statistical criteria of indicator-level multicollinearity, which underlies reliability and stability of the further PLS-SEM analysis.

Table # 03
VIF Values

Factors	VIF
DHRM1	2.046
DHRM2	1.916
DHRM3	1.811
DHRM4	1.883
DHRM5	1.831
DHRM6	2.176
EMP1	1.736
EMP2	1.757
EMP3	2.400
EMP4	1.842
EMP5	1.932
EMP6	2.012
HRAC1	1.763
HRAC2	1.635
HRAC3	1.793
HRAC4	1.503
HRAC5	1.500
HRAC6	1.900
IWB1	2.394
IWB2	1.681
IWB3	1.864
IWB4	1.784
IWB5	1.994
IWB6	2.110
TL1	1.702
TL2	1.970
TL3	1.796
TL4	1.957
TL5	1.920
TL6	1.984

Variance in endogenous variable

The values of R-Squared show a moderate predictive power of the variables used in the model. The R-square of Employee Empowerment (EMP) is 0.437, and this implies that a combination of Digital HRM Practices and HR Analytics Capability can be used to explain 43.7% of the variation in empowerment- which is large in the context of behavioral research (Hair et al., 2022). The R-square of innovative Work Behavior (IWB) is 0.248, which means that the Employee Empowerment and Transformational Leadership explain 24.8 percent of the variance. This depicts a medium predictive level, which is in line with the research in social science setting. The values of adjusted R-square also affirm the stability of the model with minimum shrinkage.

Table # 04 R- Square

Variable	R-Square		Adjusted R- Square
EMP	0.437	0.435	
IWB	0.248	0.243	

Effect Size

The results of the effect size (f^2) show the relative contribution of all predictors to each endogenous variable. Cohen (1988) indicates that a value of 0.02, 0.15, and 0.35 would indicate a small, medium, and large effect respectively. The moderate-large effects of Digital HRM Practices (0.303) and HR Analytics Capability (0.305) on Employee Empowerment indicate that they have strong impacts. There is a moderate impact of Employee Empowerment (0.188) on Innovative Work Behavior. Transformational Leadership (0.066) and the interaction term (0.034) on the other hand show small effects as is anticipated of moderation relationships. On the whole, the model demonstrates practically and theoretically significant effect sizes.

Table # 05
f - Square

Variable	Effect Size
DHRM→EMP	0.303
EMP→IWB	0.188
HRAC→EMP	0.305
TL→IWB	0.066
TL*EMP→IWB	0.034

Structural Model

The outcomes of the structural model show a high level of support of all hypothesized relationships. Employee Empowerment ($b = 0.423$, $t = 13.247$, $p < 0.001$) can be

considered as one of the most critical and positive implications of Digital HRM Practices because the perceived autonomy of employees, their control, and access to information, is significantly increased as a result of the adoption of digitalized HR practices. In the same manner, HR Analytics Capability also affects empowerment ($b = 0.424$, $t = 12.660$, $p < 0.001$) to confirm that a sense of fairness and transparency, which is promoted by data-driven decision-making and analytics-enabled HR processes, empowers employees.

In its turn, Employee Empowerment has a substantial positive impact on Innovative Work Behavior ($b = 0.388$, $t = 10.639$, $p < 0.001$), which once again proves its importance as a key mechanism, with the way the HR practices are turned into innovation. Transformational Leadership is also a positive predictor of IWB ($b = 0.228$, $t = 5.809$, $p < 0.001$), indicating that leaders who are inspiring, motivating, and intellectually stimulating have an even stronger effect on the innovative tendencies of their employees.

The interaction term (TL x EMP) is significant positive moderation ($b = 0.155$, $t = 4.200$, $p < 0.001$), which means that transformational leadership reinforces the role of empowerment on IWB. Moreover, the indirect impact of Digital HRM ($b = 0.164$, $t = 7.883$) and HR Analytics ($b = 0.164$, $t = 7.967$) on IWB via empowerment is validated, and it is meaningful and statistically significant. All these findings confirm the suggested mediated moderation model.

Table # 06
Path co-efficient

Path	Beta	STDV	T value	P value
DHRM→EMP	0.423	0.032	13.247	0.000
EMP→IWB	0.388	0.036	10.639	0.000
HRAC→EMP	0.424	0.034	12.660	0.000
TL→IWB	0.228	0.039	5.809	0.000
TL*EMP→IWB	0.155	0.037	4.200	0.000
DHRM→EMP→IWB	0.164	0.021	7.883	0.000
HRAC→EMP→IWB	0.164	0.021	7.967	0.000

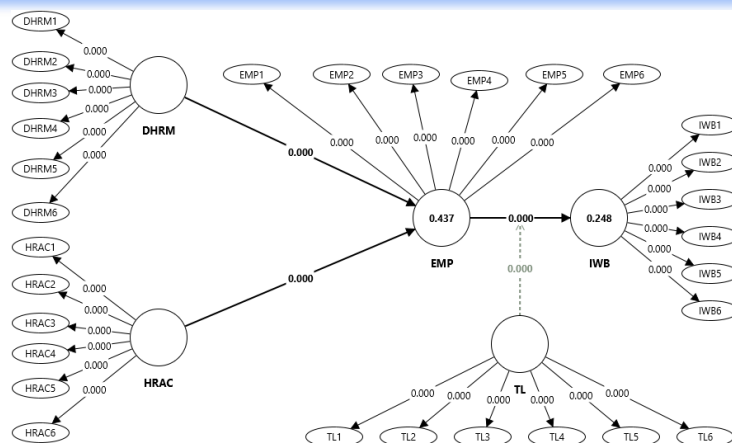


Figure # 03: Structural Model

Discussion

H1 Discussion (Digital HRM Practices→ Employee Empowerment)

The findings give a good confirmation to H1, where the Digital HRM Practices have a positive impact on the Employee Empowerment with the value of $b = 0.423$ with the p-value of less than 0.001. This result corresponds to that of AMO Theory (Appelbaum et al., 2000) that states that the opportunities inherent in HR systems raise the perceived control and autonomy of employees. Psychological empowerment is enhanced with the help of digital tools like HR portals, self-service modules, and digital performance dashboards that lead to less bureaucracy and reliance on supervisors. This especially applies to the case of Pakistan, where levels of authority tend to limit employee freedom (Siddiqui and Malik, 2023). The powerful impact proves that cultural rigidity can be overcome with the help of digitalizing HR procedures that provide the employees with more transparency and access to the information. The results correspond to the previous evidence that digital HRM enhances the perceptions of fairness, clarity, and involvement in decision-making (Khalid et al., 2024). On the whole, H1 proves that digital transformation in HR is a potent facilitator of employee empowerment in the emerging markets.

H2 Discussion (HR Analytics Capability→Employee Empowerment)

H2 is supported highly and HR Analytics Capability has a significant influence on Employee Empowerment ($b = 0.424$, $p < 0.001$). This is to show that the HR systems that are analytics-driven results in better employee sentiments of fairness, clarity, and control as postulated by the AMO Theory, which correlates the feelings of ability and motivation with empowerment (Appelbaum et al., 2000). Employees can place trust in the organizational processes when they realize that HR decision-making processes, including appraisals, promotions, or training, are formed on the basis of transparent data. This is consistent with the recent findings that analytics enhances the perceived justice and minimizes biases (Awan and Javed, 2024). Analytics is a corrective mechanism in the case of Pakistan, where the subjective rating and the favoritism of HR in this nation are typically challenged (Rehman and Bhatti, 2023). The high

coefficient is also an indication that analytics is an emerging strategic empowering tool, which aligns with the argument of RBV that valuable and rarities organizational capabilities are strategic empowerment that drive employee-level performance. Therefore, H2 ascertains the role of HR analytics as empowerment.

H3 Discussion (Employee Empowerment→Innovative Work Behavior)

H3 is positive significant, Employee Empowerment has a positive impact on the Innovative Work Behavior ($b = 0.388$, $p < 0.001$). This observation is consistent with the Empowerment Theory (Spreitzer, 1995) which contends that employees who are empowered are more confident, competent and psychologically safe to innovate. Autonomous employees tend to give new ideas, experiment, and question the old ways of doing things. The findings are also aligned with a range of research on the global level indicating that empowerment increases creative abilities and proactive actions (Kim et al., 2022) and with the local studies that reveal empowerment as a source of innovation in Pakistani companies (Bashir and Rana, 2024). The positive effect signifies that the employees who are empowered receive the psychological barrier in a cultural environment where the taking of risks is not traditionally encouraged. These findings indicate that the empowerment is one of the key channels that HR practices can be converted into performance-enhancing behaviours. Therefore, H3 has its proponent and supports the important role of empowerment in encouraging innovation.

H4 Discussion (Mediation: Digital HRM→Empowerment→IWB)

The hypothesis H 4 is accepted, and the indirect effect of Employee Empowerment b (0.164, $p < 0.001$) is significant, which means that the relationship between Digital HRM Practices and IWB is mediated by Employee Empowerment. This proves the claim of AMO Theory that HR systems affect behavior by influencing it in a motivational and opportunity-enhancing way (Appelbaum et al., 2000). The presence of digital HRM enhances transparency, decreases the barriers to the procedure, and allows employees to control the relationship with the HR, which empowers them even more. The empowerment, in its turn, stimulates the employees to be innovative. This tendency is consistent with the previous results that indicate the presence of proactive behavior and creativity stimulated by digital HRM (Farooq and Shah, 2024). With HR practices that are traditional and restrict employee input, digital systems build more inclusive conditions that foster innovation in Pakistan. The mediation effect shows the fact that digital HRM does not directly produce innovation, but it works through psychological empowerment. In that way, H4 legitimizes empowerment as the internal process of transforming the advantages of digital HR into the innovative results.

H5 Discussion (Mediation: HR Analytics Capability→Empowerment→IWB)

H5 is approved, and the effect of the mediation of Employee Empowerment ($b = 0.164$, $p < 0.001$) proves that there is a mediation effect between the HR Analytics Capability and the IWB. HR analytics will increase fairness, accuracy, and

transparency - aspects that build empowerment. This is in line with the thought of the RBV that higher analytical skill can only bring about value once it is converted into employee-level behaviors (Barney, 1991). Rigorous unbiased evaluation systems and clear expectations given to the employees make them feel motivated to be innovative since they are empowered. As empirical data indicates, analytics can minimize ambiguity and allow employees to know how their inputs are evaluated (Marler and Boudreau, 2023). Pakistan is one of those countries where subjective decision-making processes demoralized the employees, but analytics-based HR processes introduce a culture of trust, thus increasing innovation. These findings suggest that analytics capability does not directly lead to the development of innovative behavior, but it does so by promoting empowerment. So, H5 highlights the importance of empowerment as the necessary psychological conduit between analytics and innovation.

H6 Discussion (Moderation: Transformational Leadership*Empowerment→IWB)

H6 is proved, and the correlation between Transformational Leadership and Empowerment is a significant predictor of IWB ($b = 0.155$, $p < 0.001$). This is consistent with the Transformational Leadership Theory (Bass, 1985) that suggests that inspiring, intellectually stimulating, and supporting leaders increase motivation of employees in innovating. Transformational leaders offer the psychological safety and support required to turn the empowerment of employees into innovative results as these employees already have autonomy and competence. The existing literature supports the idea that the use of transformational leadership improves creativity, particularly in hierarchical nations such as Pakistan where employees strongly depend on leaders to guide them (Khan and Ahmed, 2023; Munir et al., 2025). The moderation effect is significant, which shows that the empowerment process is not enough, and supportive leadership enhances employees readiness to risk and be involved in the idea implementation. H6 can, therefore, garner support that transformational leadership is an important contextual factor which allows empowered employees to realize their full innovative potential.

Implications

Theoretical Implications

This research goes a step further in theory by bringing together the AMO Theory, RBV, and Transformational Leadership Theory into a moderated mediation model. It indicates that digital HR abilities can be converted to innovative behavior but only when transformed to psychological empowerment, which supports empowerment as a crucial process in research in HRM. The study, by developing HR analytics as a powerful precursor of empowerment, extends the human-capability-extension of RBV. The strong moderation of transformational leadership emphasizes the boundary role of leadership in digitalized work environments, which forms part of leadership-innovation literature. On the whole, the paper provides a detailed theoretical

framework of the way digital HR systems are converted into employee-level innovation.

Practical Implications

In practice, the results imply that companies that seek to improve the level of innovation should invest in digital HR technology, which simplifies operations, promotes transparency, and gives employees freedom. HR analytics systems are expected to be reinforced to produce data-driven insights to minimize bias and enhance the perception of fairness. It should focus on empowerment initiatives, including employee participation in decision making, delivering feedback on their performance, and making HR information more accessible. Also, the managers can introduce training initiatives that will enable the employees to make effective use of the digital systems. Since empowered workers display increased innovative behavior, organizations gain increased adaptability and competitiveness through the encouragement of a digitally facilitated and psychologically enriched work environment.

Managerial Implications

To the managers, the findings highlight the importance of implementing leadership approaches that would be complementary to the HR practices based on empowerment. The transformational leadership actions, including the ability to present a powerful vision, promote creativity, and provide personalized attention, play a significant role in reinforcing the innovative production of employees. Managers ought to also actively reward empowerment through delegating authority, rewarding the contributions of employees and by providing psychologically safe environments. Managers should be in the forefront of the use of digital HRM to make employees feel that the digital tools are used to empower them and not to spy on them. The more managers apply both digital HR support and empowering leadership actions, the higher the chances of employees being willing to take initiative, offer novel ideas, and make significant contributions to performance powered by innovation.

Policy Implications

Organizations are advised to make institutionalized digital HRM and HR analytics as part of HR strategy at the policy level. To reduce favoritism and increase trust, HR policies are required to ensure the use of transparent, data-driven decision-making. Empowerment policies to be adopted by the employees, such as participative decision-making, access to performance data, and online self-service systems, need to be formalized. Managerial competency frameworks should be incorporation of leadership development programs that focus on transformational behaviors. Regulators of government and industry in Pakistan can promote the use of digital HR by providing incentives, the capacity building program and by developing national guidelines on HR digitalization to boost workforce innovation and organizational competitiveness in the overall economic environment.

Limitations and Recommendations

The current study is constrained by the fact it has a cross-sectional design, and the causal relationship cannot be determined. The next time around, longitudinal or experimental designs to determine the temporal relationships should be considered. Self-reported surveys were used to gather data, which increases the risk of common method bias, and in the future, it is necessary to introduce supervisor-rated or objective performance scales. The sample was targeted at the particular Pakistani industries, restricting the generalization, and ought to be extended to other industries or nations. Further studies can consider the presence of other moderators, including digital mindset or organizational culture, and other mediators, including psychological safety or learning orientation, to enhance knowledge about the process of innovation in digital HR settings.

Conclusion

This research shows that Digital HRM Practices and Hr Analytics Capability make a considerable

Contribution to Employee Empowerment, which consequently leads to Innovative Work Behavior Transformational leadership also enhances this correlation and emphasizes its essentiality in the empowerment of employees who can then transfer autonomy into innovation. The results prove the combined theoretical reasoning behind AMO Theory, RBV, and Transformational Leadership Theory, and the significance of digital HR systems in the formation of employee behavior. On the whole, the research can enrich the body of literature on HRM and innovation because it demonstrates how a combination of digital abilities, empowerment, and leadership can help create a favorable workplace in which ongoing enhancement and innovation become possible.

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