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Exploring Factors That Shape Employees' Intention to Adopt HR Analytics Through a Qualitative Study

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ABSTRACT

This paper explores various factors that may influence employees' intention to adopt HR analytics in the Pakistani telecom sector. To select respondents, a purposive sampling technique was used. Based on the interview guide and data saturation, 21 top and middle-level HR professionals from telecom operators were interviewed in the twin cities of Rawalpindi and Islamabad, Pakistan. To analyze the qualitative data, a thematic content analysis was performed. Data was analyzed using NVIVO. The results of this research support the idea that HR analytics adoption has become an essential factor and game-changer in the 21st-century telecom sector, owing to change-oriented leadership, self-efficacy, social influence, data availability, and management support. The fear factor has emerged as a main hurdle in HR analytics adoption intention. The findings of this study will inform top HR professionals and policymakers on how to adopt HR analytics. The study brings to policymakers' attention the need for change-oriented leadership in the workplace to keep employees inspired and motivated. Similarly, the study suggests adopting HR analytics to develop essential skills for fulfilling duties. In this regard, for the effective use of HR analytics, the availability of infrastructure and management support is considered necessary.

Keywords:

HR analytics, Leadership, Analytical mindset, Social influence, Fear factor

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Companies around the world are undergoing digital transformation across their entire business operations, and Human Resources (HR) is no exception (Fields, 2024). This digitalization is also reflected in Sustainable Development Goals, i.e., SDG 09, Industry innovation, and infrastructure. The digitalization of HR includes, among others, the adoption of HR analytics,

a software tool that provides rapid insights and metrics to improve decision-making. According to Bhattacharyya (2017), HR analytics is defined as the “application of analytic logic for the HRM functions or HR practices based upon data rather than intuition or personal feeling”. According to Mohamed and Shehata (2023) and Van der Togt and Rasmussen (2017), the adoption of HR analytics has proven to be a game-changer, allowing organizations to empower their employees, increase retention, and gain a competitive advantage. Today, HR analytics has become an important tool for progress. It uses existing information to predict future returns on investments and is considered a wellspring of vital benefit (Ben-Gal, 2019; Bindu, 2016).

Previous studies show that top-performing organizations are 3 times more likely to be high-performing HR analytics users as compared to lower-performing companies (Lavalle et al., 2010; Valecha, 2022). These top companies are twice as likely to use HR analytics as a competitive edge. This shows that HR analytics is the core driver of organizational performance (Visier Inc., 2012). To date, much of the literature has paid attention to the result or outcome of HR analytics, e.g., HR processes effectiveness (Bernadette et al., 2023; Boakye & Lamptey, 2020; Zebua et al., 2024), error reduction (Karmańska, 2020; Odionu et al., 2024), time-saving (Ajiga et al., 2022; Karmańska, 2020; Wang, 2024), etc. Most people agree that HR analytics is critical to increasing the Return on Investment (ROI) for talent development (IBM, 2009).

Up till now, despite the familiar promises of better returns and effectiveness, HR analytics continues to be slowed down in both management and people skills-related issues linked with its execution (Ekka & Singh, 2022). These issues include leadership challenges, a lack of analytical mindset, analytics myths, awareness issues, etc. (Chalutz Ben-Gal, 2019). Lawler et al. (2004) and Sharma et al. (2025) argue that while HR analytics is gaining attention in both the academic and corporate worlds, there is less clarity about which factors contribute to its adoption. So, an integrated approach that combines the management and people block together is required to evaluate, set up, and execute an HR analytics solution.

The Pakistani telecom sector faces major challenges in improving people management using workforce analytics. Despite rapid technological changes in the industry, there remains a gap in the use of data-driven HR insights to improve HR decision-making processes (Mohammed, 2019). The lack of a robust HR analytics framework hinders HR's ability to effectively recruit, retain, and develop the workforce. According to the Chief HR Officers of Pakistani telecom operators, they admit the fact that HR analytics is not the future; it is present indeed and a game changer. But the problem is that they lack the process through which they can move towards HR analytics adoption. The lack of know-how of factors leading to HR analytics adoption limits the industry's ability to make HR-informed decisions (Waqar & Paracha, 2024). So, it is worthwhile to explore the various antecedents of HR analytics adoption intention.

HR analytics has recently become important for organizations because it allows them to make decisions based on data rather than on instinct or outdated HR tactics. Analyzing employees' patterns, classifying behavioral formats, and aligning talent strategies along with organizational objectives have become determining factors for global organizations as they embark on digital transformation (Okatta et al., 2024). In this way, for understanding how HR departments can move to evidence-based management, understanding HR since the transformation is needed makes it essential, as well as the topic, timely. Boakye and Lamptey (2020) remain among the few scholars to consider the socio-organizational aspects of HR analytics adoption in the periphery of developing countries. Very few qualitative analytical

studies and international literature on HR analytics have examined the socio-organizational aspects of developing countries. Most scholars within the field have focused on technological preparedness and adoption frameworks, or the outcomes of the use of analytics, paying less attention to the perceptions of employees regarding analytics and the role of organizational culture on the use of analytics (Fernández & Gallardo-Gallardo, 2020; Rigamonti et al., 2025; Saxena et al., 2022; Shet et al., 2021).

In addition to this, previous studies have focused almost exclusively on the use of quantitative methods, which has resulted in a lack of understanding of the subjective meanings, lived challenges, and sociocultural dimensions of the adoption of HR Analytics (Espegren & Hugosson, 2023; Rigamonti et al., 2025; Saxena et al., 2022; Wirges & Neyer, 2022). Thus, the current study makes a unique contribution to the literature by being the first to investigate, in the context of an emerging market such as Pakistan, which lacks sufficient empirical literature on the subject and has organizational dynamics that are quite different from those in developed countries, the perceptions, motivators, and obstacles that are associated with the use of HR analytics.

This study responds socially and technologically to employees, integrating perception and behavior in the context of data governance and policies within the organization (She et al. 2021; Vijay & Raju 2024). By placing the elements, the study sets the context for understanding the attitude, perception, use, and acceptance of HR analytics by individuals and organizations, particularly in settings with limited HR analytics (Mahmoud et al., 2025; Shahiduzzaman, 2025). Cultural preparedness and an employee's sense-making are central considerations when organizations integrate analytics into decision-making, underscoring the socio-technical framing of HR analytics adoption (Mushtaq et al., 2025; Shet et al., 2021; Wirges & Neyer, 2023). Thus, the elaboration of the context-sensitive model of HR analytics adoption (Shet et al., 2021) and the empirical contributions the practitioners and leaders of HR in the developing world, especially in regions where empirical evidence is sparse, would drive evidence-based and data-informed HRM in developing economies (Boakye & Lamptey, 2020; Mushtaq et al., 2025) are of the dual contributions of the present study.

To summarize, firstly, this research aims to probe the concept of HR or workforce analytics in the Pakistani telecom context and to advance the limited knowledge and academic contribution in this domain. Secondly, given the significance of understanding people analytics in developing countries, this study aims to uncover the key antecedents of employees' intention to adopt HR analytics. Thirdly, the research's key findings offer recommendations for telecom HR professionals on implementing workforce analytics. Based on the problem context, the main research question is framed as follows: What factors might influence Pakistani telecom HR employees toward HR analytics adoption?

Literature Review

Overview of HR Analytics

As human resources and business continue, analytics has gained importance in human resource management (Boudreau & Ramstad, 2007) and has become a hot topic in the literature and the business world (Marler & Boudreau, 2017; Sharma et al., 2025). It has been labeled with various names, such as People Analytics, Talent Analytics, and Workforce Analytics.

Analyzing data and drawing conclusions based on real evidence is more likely to lead to an objective decision rather than a decision made on gut instinct. According to Ulrich and Dulebohn (2015), HRM analytics can better help managers and HR professionals focus and improve HR investment, which also helps “HR move toward professional respectability and decision-making rigor” (p. 22).

Overview of HR Analytics Adoption

The era of rapid change in every aspect of life has brought better business opportunities for the global business world. With the rapid development of digitalization, human resource professionals can easily access new information in a smooth and process-free manner (Beath et al., 2012), and as a result, they can solve many difficult problems in the decision-making process of employees. Digitization paves the way for the latest analytics opportunities in the domain of artificial intelligence and big data (Tambe et al., 2019). While many companies consider HR analytics their main focus and top priority, implementing it remains difficult (Arora et al., 2021). Digital advances have created numerous hurdles for human resource units, namely recruiting, retaining, and identifying qualified professionals who can help organizations grow (Mondal et al., 2022).

In today's HR discourse, the approach known as “revolutionary analysis of the future of HR” (Van der Togt & Rasmussen, 2017) has transformed the role of HR and made it more powerful within organizations (Andersen, 2017). Nevertheless, the acceptance of HR analytics by businesses is “very low” (Marler & Boudreau, 2017). Many companies lack the self-assurance to utilize the data. They still see the workforce as “people and costs” rather than “work and value” (OrgVue, 2019, p. 3). That is why organizations still struggle with implementing HR analytics. KPMG (2019) states that the most important obstacles to digital transformation are the unavailability of HR software, leadership issues, organizational environment, a lack of employees with analytical aptitude, and a lack of social support (OrgVue, 2019). In addition, HR professionals lack the skills, abilities, and competencies (Angrave et al., 2016; McCartney et al., 2021) needed to better implement and use analytics in HR (Mondal et al., 2022). Unfortunately, the lack of understanding and trust among HR professionals in executing analytics is related to differences in the HR analytics literature regarding its definition, methodology, and results.

Mushtaq et al. (2025) conducted surveys and reports that identified factors facilitating the adoption of HR analytics, such as leadership support and organizational HR analytics advocacy. However, these reports present very high-level contextual constraints and fail to adequately consider lived employee experiences (Saxena et al., 2022). HR analytics is a phenomenon that encompasses multifaceted leadership and organizational realities that these surveys are unable to address in depth. The qualitative employee lived experience reports on HR analytics adoption points, organizational and leadership advocacy, and support a fundamental requirement to HR Analytics accommodation (Saxena et al., 2022). Saxena et al. (2022) note that examining the lived experiences employees have concerning the uptake of HR analytics suggests the importance of organizations providing the support, encouragement, and leadership necessary for acceptance.

In addition to skill gaps, the author explains that the issues related to data governance also significantly impact the adoption of HR analytics (Alam et al., 2025). Reports suggest that the

HR function has a pronounced deficiency in data analytics, statistical skills, and modelling (Kulikowski, 2024; Vijay & Raju, 2024). Furthermore, issues related to data quality, consistency, and integration are common (Alam et al., 2025; Kurikala & Parvathi, 2023). This gap in most research tends to focus less on the details of how employees perceive or respond to such issues in their HR roles. As a result, most research tends to focus on high-level organizational issues while neglecting specific barriers at the individual level (Alam et al., 2025).

Moreover, studies focused on technological preparedness and the willingness to adopt HR analytics (Kalvakolanu et al., 2023; Theres & Strohmeier, 2023) tend to overlook the effects of social factors and organizational culture (Agarwal & Raj, 2022), particularly in developing countries. These social factors, along with factors such as self-efficacy and resource availability, are the major determinants of organizational and individual adoption of HR analytics, as stated in studies from Malawi, Sri Lanka, Palestine, and India (Agarwal & Raj, 2022). The presence of a positive organizational culture in the integration of HR technologies is critical (Muktamar & Nurnaningsih, 2024; Shet et al., 2021) and characterized by a positive culture surrounding technological changes. To conclude, many recent studies in the literature analyze empirical models of IT adoption, focusing on macro-level relationships but overlooking micro-level perceptual and behavioral relationships within organizations (Ganesha & Thavva, 2025). Ganesha and Thavva (2025) call for further studies on the actual adoption and barriers to HR analytics, as well as on the employee-manager interaction with the insights of HR analytics.

The rising interest in HR analytics still left a void in comprehending how employees view HR analytics, in what ways social and organizational systems contextualize its adoption, and what contextual barriers structure its functionality (Rigamonti et al., 2025; Saxena et al., 2022). Moreover, little attention is paid to the contextual barriers that hinder effective practice in developing countries like Pakistan (Gogia et al., 2024; Rasheed et al., 2024). Most of the available literature is quantitative, geared towards developed countries, more technological in nature, and avoids the real-life portraits encountered by HR professionals in a developing world situation (Agarwal & Raj, 2022; Sakib et al., 2024; Zubair & Erdoğan, 2024). For instance, Saxena et al. (2022) highlighted the need to develop an in-depth understanding of individuals who have experienced HR analytics. Sienkiewicz (2022) considered quantitative results more generalizable and argued that they should be investigated thoroughly to eliminate the simplifications introduced in cross-cultural settings. Developing countries face challenges such as a lack of skills and expertise and the inaccessibility of HR technology, which further highlight this gap (Alam et al., 2025; Mushtaq et al., 2025). Therefore, this study fills a gap by providing a more thorough view of the challenges HR professionals face in Pakistan when adopting HR analytics.

This study seeks to address the questions raised by Arora et al. (2021), Marler and Boudreau (2017), and McCartney and Fu (2022) by conducting further research to explore the construct of HR analytics and shed light on the factors that drive HR analytics adoption. HR analytics studies require further research because the concept remains uncertain, and there is no detailed research to determine the origins of HR analytics adoption (Qamar & Samad, 2022). Consequently, keeping in mind the existing scenario, this study contributes to the body of

knowledge, i.e., the HRM domain, by examining the antecedents of HR analytics adoption among HRM employees in the telecommunications sector in Pakistan.

Theories

The technology acceptance model and the theory of reasoned action are two well-known theories that examine technology acceptance among IT employees. These frameworks elucidate the antecedents that influence technology adoption at the personal level of employees and actual usage behavior within businesses. Furthermore, the Technological Organization Environment (TOE) framework by Tornatzky et al. (1990) and the diffusion of innovation theory by Rogers (1995) have been widely used in research on technology adoption and diffusion in organizations. The diffusion of innovation theory elucidates how, why, and at what rate novel thoughts and technologies spread. Innovation and motivation are two aspects that can have symbolic value, either supporting or hindering adoption. Fishbein and Ajzen's (1975) Theory of Planned Behavior (TPB) merely explains that individual behavior results from intentions influenced by attitude, subjective norms, and perceived behavioral control. The TPB is an extension of the theory of reasoned action (Fishbein & Ajzen, 1975), focusing on behavioral and normative beliefs about individuals' actual behavior. According to the researchers (Yuriev et al., 2020), the TPB provides a basis for employee intentions and behaviors, making its use to evaluate the adoption of HR analytics by Pakistani telecom HR employees highly valid.

To summarize, past empirical research focuses on employee perceptions regarding HR analytics, organizational and social systems, technological knowledge, and willingness to use/actual use analytics in HR decision making, governance, and data organizational skills and challenges. These issues served as the empirical basis for the construction of the semi-structured interview guide for this research.

Method

To explore which factors influence employees' intention to adopt HR analytics, a qualitative study has been adopted for this research (Saxena et al., 2022). Data was gathered through semi-structured interviews (Bonilla-Chaves & Palos-Sánchez, 2023; Molefe, 2013). The reason for choosing semi-structured interviews was that these provide more freedom and flexibility during an interview (Patton, 2002). For semi-structured interviews, an interview guide (Table 1) was developed by adding insights from the previous studies (Alam et al., 2025; Saxana et al., 2022). This systematic approach keeps the work relevant, aligned with research objectives, and is rooted in existing knowledge (Fareed et al., 2022). According to the need of the study, a few secondary studies were also utilized. These studies helped to set the foundational underpinnings of knowledge and contextual research (Hasan, 2024). Through the integration of the results of prior studies, the interview guide centered around the primary areas (Shoozan & Mohamad, 2024), and its common questions facilitate comparison across informants, which is vital for identifying and validating themes in the collected data.

Deductively informed by the previous literature, the interview guide was organized by thematic area, which consisted of four themes: employee perception related to HR analytics, actual use of analytics and decision-making, organizational and social systems, and

technology-knowledge and use. The review also identified three areas of challenge: data governance, skills-related, and organizational challenges.

Those empirically grounded themes became the basis of the open-ended interview questions as well. Questions about participants' understanding of HR analytics, how it differs from HRM, and people and workforce analytics were drawn from the literature on employees' perceptions, technology adoption, and the intended use of HR analytics. Similarly, the questions concerning the shift from intuition and/or gut feelings in HR practices to data-driven HRM, and the role of HR analytics in decision-making, were informed by empirical literature on the actual use of analytics in decision-making.

The interview guide's elements on leadership, social influence, and personal capacity are informed by organizational social systems and HR analytics, individual-level perceptions, and empiricism. The barriers (myths, misconceptions, and skill deficiencies) and enabling conditions (availability of data, data management assistance, and training) are a reflection of the data governance, competencies, and organizational barriers described in the empirical literature. Thus, all elements investigated through the interviews were the result of a literature review and were not created randomly. This research design allows a researcher to obtain a clearer, more organized view of the situation and the social relationships that occur in the research (Gummesson, 1991).

Table 1
Interview Guide

Key Drivers of HR Analytics Adoption
<p>Thank you for allowing us to take up your valuable time. This research aims to gather your thoughts and opinions on the topic of HR Analytics Adoption Intention and its drivers. The interview will last for half an hour. The purpose of this interview is purely academic. I assure you that anything that we discuss in this interview will be kept confidential and anonymous. Please make an effort to be open and honest while responding to questions. During an interview, I'll be making notes as we go along. Will you agree to that? By agreeing to take part in this interview, you indicate your voluntary participation in this research.</p> <p>Gender: Male or Female</p> <p>Age: 20-35 Years; 36-50 Years; > 50 Years</p> <p>HR Analytics Knowledge: MS Analytics; BS Analytics; Certification/ Others</p> <p>Designation: Manager; Senior Officer</p>
<p>What's your understanding of the concept of "HR Analytics"?</p> <ul style="list-style-type: none"> • Difference between traditional HRM and HR Analytics • People Analytics • Workforce Analytics <p>What are your thoughts on the movement from traditional HRM to HR analytics adoption?</p> <ul style="list-style-type: none"> • Gut Feeling • Intuition • Data-driven HRM <p>What are the main drivers of HR Analytics Adoption?</p> <ul style="list-style-type: none"> • Leadership • Social Influence • Personal Capacity • Rating Each Driver <p>What are the barriers that can hinder HR Analytics Adoption?</p> <ul style="list-style-type: none"> • Myths • Wrong perceptions, • Lack of skills <p>What steps can companies take to make HR Analytics a most useful feature of HR management in Pakistan?</p> <ul style="list-style-type: none"> • Data Availability • Management Support • Training Culture, etc.

A purposive sampling technique was employed to target the top and middle management of the HR departments of telecom operators based in the twin cities of Rawalpindi and Islamabad, Pakistan. A total of 21 interviews were conducted. All the employees have different demographic characteristics (see [Table 2](#)).

Open-ended questions were asked of the participants during an interview to explore their opinions, perceptions, expectations, and concerns regarding the adoption of HR analytics in a telecom setting in Pakistan. There were two segments of the interview. The first segment addressed participants' demographic profiles and background knowledge, and the second segment contained questions and information on factors and challenges that led to HR analytics adoption. Reflexivity was ensured through a diary to record all keynotes, and those points were shared with participants to prevent deviation from what they said (Shacklock & Smyth, 1998). Participants were also asked to sign at the end of their responses. All the interviews were digitally recorded using a tape recorder to avoid memory issues and ensure the availability of rich data for analysis. As for ethical considerations, participants were permitted to record their responses. NVIVO software was used for data analysis. First of all, all interview responses were transcribed. Then, thematic content analysis was performed using codes and a word cloud (see [Figure 1](#)). The major benefit of thematic content analysis was to reveal the main and sub-themes (see [Table 3](#)).

The validation of the analysis for the current study occurred through Credibility, in which 'member checking' and 'prolonged engagement' were involved, where participants verified their interpretations, and ample time was spent in the research context, respectively. Dependability is the consistency and stability of the research process, and findings were ensured through keeping a record of all decisions and data. Confirmability ensured the findings remained neutral through an 'audit trail' and through 'reflexivity'. It was ensured that findings were grounded in data; therefore, 'peer debriefing' was practiced, and all the results were discussed with an impartial colleague.

Table 2
Demographic Profile of the Participants

	Demographic Profile	Frequency
Gender	Male	16
	Female	5
Age	20-35	6
	36-50	12
	More than 50	3
HR Analytics Literacy	MS Business Analytics	5
	BS Analytics	3
	Certification/ Others	13
Designation	Manager	6
	Senior Officers	15

motivation, self-efficacy, performance fear) and institutional elements (innovative capacities, training, leadership, and user-friendliness).

Figure 2

Decision/Word Tree- HR Analytics Adoption (Source: NVIVO 11)

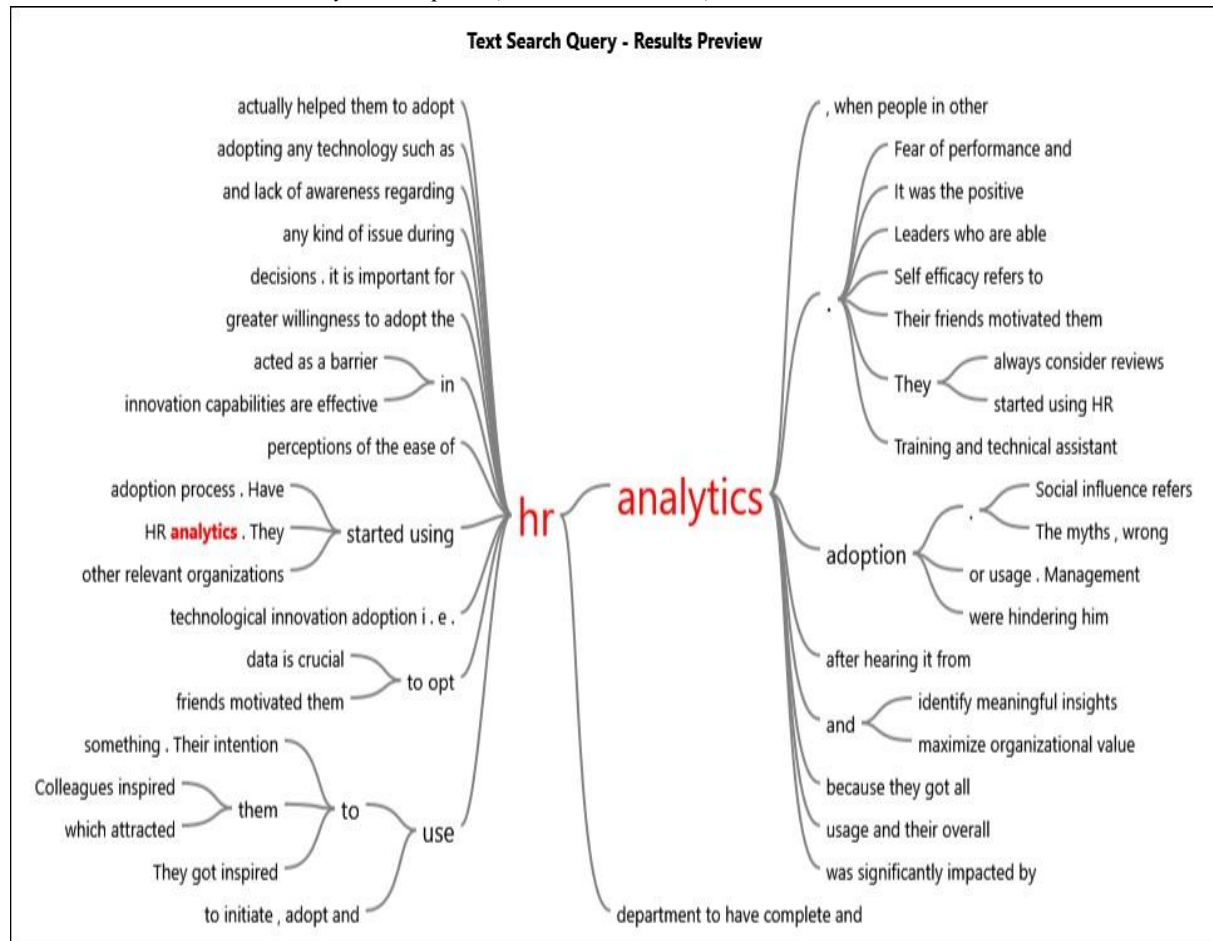


Table 3 presents the main and sub-themes, concepts, and frequency of responses as a result of the thematic content analysis.

Table 3

Interview Themes

S. No	Major Theme	Frequency	Sub Theme	Concepts
1	Leadership	5	Change-Oriented Leadership	Change orientation, innovation, creativity
2	Social Influence	4	Social Networking	Peers, siblings, friends, family, and nearby people
			Shared Experience	Word of mouth, feedback
3	Self-Efficacy	3	Self Confidence	Belief, capability, required knowledge, and skills
4	Management Support	4	Technical Support	Organizational infrastructure, guidance, resources
5	Fear Factor	2	Fear of Failure	Fear of performance, pressure, myths, perceptions, fear of numbers
6	Data Availability	3	Accessibility of Data	Data completeness, accuracy, and easy access

Results

Theme 1- Leadership

According to Davenport (2018) and Cosic et al. (2012), effective leadership involves senior managers' or leaders' ability to make data-driven decisions in organizations. Participants 7, 13, 18, and 20 emphasized the significance of people- and change-oriented leadership in influencing their mindset and the implementation of data-driven HRM. According to participants 2, 5, 6, 9, and 15, data-driven HRM is resource-intensive and relies on mutual collaboration; therefore, innovative and change-oriented leadership are crucial factors in determining the technological innovation adoption, i.e., HR analytics. Participants 12, 17, and 19 mentioned that leaders who can support idea generation and innovation capabilities are effective in HR analytics adoption.

Theme 2- Social Influence

According to Venkatesh et al. (2003), social influence refers to the significance individuals give to the opinions of others when using a specific technology. Participant 2, 7, 10, 11, 16, and 19 said that their colleagues inspire them to use HR analytics. Participants 1, 6, 8, 13, 17, and 20 said that their friends motivated them to pursue HR analytics. Participants 3 and 14 reported that they began liking HR analytics after hearing about it from their family members. Participants 7, 15, and 18 mentioned that they were inspired to use HR analytics when people in other relevant organizations began using it. It was positive word of mouth that led them to adopt HR analytics. Participants 4, 5, 9, 12, and 19 said that they always consider reviews from their peers, colleagues, age fellows, and relatives before adopting any technology, such as HR analytics.

Theme 3- Self-Efficacy

According to Bandura (1977), self-efficacy refers to an individual's belief that they are capable of doing something. Participants 1, 3, 4, 9, 13, and 17 stated that their mindset and intention to use HR analytics were significantly influenced by their perceptions of their ability to understand and use it. Participants 2, 7, 10, 11, 12, 14, 16, and 18 mentioned that their self-confidence in their knowledge and skills has helped them adopt HR analytics and identify meaningful insights from the data.

Theme 4- Management Support

According to Venkatesh et al. (2003), an individual's perception of management support determines whether they believe that there is organizational infrastructure and technical and management support to assist them. According to Wu and Wang (2005), organizations that provide adequate support and resources can create a conducive environment for technology use by ensuring users are confident and competent. Most participants, e.g., 2, 3, 5, 9, 12, and 14, believed that management support is essential to resolving any issues during HR analytics adoption or use. Participants 11, 16, 19, and 20 mentioned that management support plays a central role in shaping users' perceptions, attitudes, and experiences during the technology adoption process. Participants 4, 6, 7, 8, 13, 15, 17, and 18 stated that they had made up their minds to use HR analytics because they received all the required support from the organization, including infrastructure, resources, and guidance. Such support has developed a positive

attitude in them, and they have exhibited a greater willingness to adopt HR analytics. Participants 10 and 12 believed that training and technical assistance significantly influenced their perceptions of the ease of use of HR analytics and their overall acceptance.

Theme 5- Fear Factor

Participants 5, 19, and 21 said that their lack of analytical aptitude and fear of statistics acted as barriers to HR analytics adoption. Participant 15 said that myths, misconceptions, and a lack of awareness about HR analytics adoption were hindering his use of it. Participants 1 and 3 mentioned that the fear of mathematics, numbers, and IT skills was causing hesitation to initiate, adopt, and use HR analytics. According to Participant 7, fear of performance and pressure led to reluctance and behavioral traits.

Theme 6- Data Availability

According to Vargas (2018), data availability is a critical factor for making effective decisions. Participants 6, 9, 14, and 20 said that it is important for the HR department to have complete and accurate data for effective and efficient decision-making. Participants 2, 4, 7, 12, 17, and 18 informed us that it is essential to have data from 360 degrees, which can be useful for solving complex issues, driving initiatives, and fostering a positive organizational environment. Participants 1, 3, 4, 5, 8, and 10 mentioned that easy accessibility and availability of data are crucial for adopting HR analytics and maximizing organizational value in terms of competitive edge.

The Proposed Model and Propositions

P1: Change-oriented leadership positively impacts employees' attitudes and intentions to adopt HR analytics.

P2: Social influence positively impacts employees' attitudes and their intentions to adopt HR analytics.

P3: Self-efficacy positively impacts employees' attitudes and intentions to adopt HR analytics.

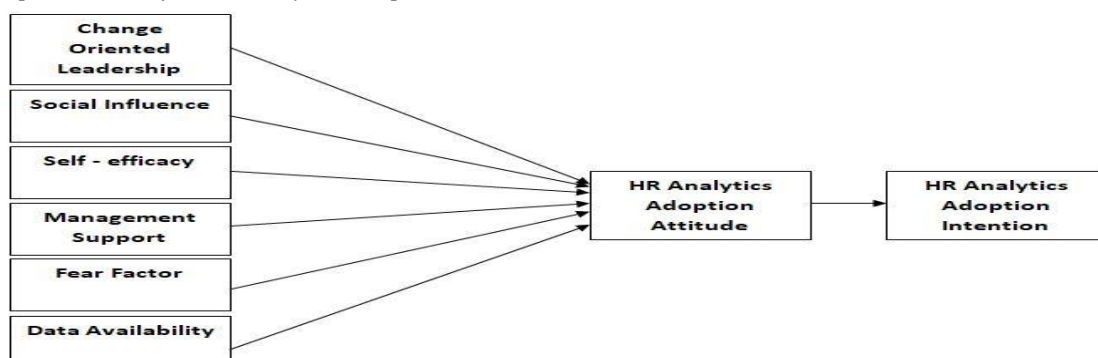
P4: Management support positively impacts employees' attitudes and their intentions to adopt HR analytics.

P5: Fear factor has a negative impact on employees' intentions to adopt HR analytics.

P6: Data availability has a positive impact on employees' intentions to adopt HR analytics (see Figure 3).

Figure 3

Proposed Model for HR Analytics Adoption



Discussion

Key Factors Influencing HR Analytics Adoption: Behavioral Intention

The theory of planned behavior has been used as a theoretical lens to explore various factors that may influence HR analytics adoption intention. The results of our study indicated that HR analytics adoption intention is positively impacted by change-oriented leadership. In the current unpredictable business situation, change-oriented leadership is essential to encourage, inspire, and persuade the workforce to execute sustained business transformation and adopt analytics. According to Jyoti and Dev (2015) and Jiang et al. (2017), change-oriented leadership enhances employee motivation, attitude, and confidence by aligning vision and workforce readiness.

The results of this study also show that employees intend to begin using HR analytics when they receive positive word of mouth and feedback from others. HR analytics intention is positively influenced by colleagues, friends, and relatives, or friends in other firms. The results of our study are aligned with other studies investigating the impact of social influence on the adoption of apps (Sofi et al., 2025).

Self-efficacy has been considered a crucial determinant of HR analytics adoption intention. These results are consistent with the findings of Vargas et al. (2018) and Vargas (2015). It indicates that employees' self-belief and confidence act as a motivator to adopt HR analytics. Several studies have demonstrated the significance of management support in predicting actual technology behavior (Al-Ajlouni et al., 2019; Venkatesh et al., 2003). This is similar to the current study, where management support had a significant positive effect on analytics adoption intention. This means managers need to emphasize the integration of IT infrastructure and HR analytics with other systems. This means that employees must receive the required support and necessary assistance when using HR analytics.

The fear factor has been recognized as a barrier to the implementation of HR analytics. This suggests that participants' fear of statistics and mathematics, lack of IT skills, myths, and perceptions of failure act as a barrier to adopting HR analytics. The results are consistent with the findings of Arora et al. (2021).

Data availability is a key factor in the positive impact of HR analytics on the behavioral intention of HR analytics. This result is contrary to previous literature that found data availability to be an insignificant factor (Vargas, 2015). Although structured and unstructured information is available, employees have difficulty distinguishing between them and understanding them. But over time, this information becomes increasingly important.

The present study sheds light on the adoption of HR analytics by highlighting perceptions, organizational culture, and leadership behaviors that heavily influence it as a socio-embedded process rather than a purely technical/skill-based one. Based on organizational culture and leadership style, emotional and misconception resistance, and cultural factors, the study demonstrates a socio-psychological model for the adoption of HR analytics in the Pakistan context. However, past studies, such as Jandaly and Khojah (2024), focused on leadership and technological infrastructure and support as the primary drivers (Mushtaq et al., 2025; Rigamonti et al., 2025).

Also, this study underscores that the challenges emerging from data governance in developing countries differ from past studies, due to the unavailability of technological

infrastructure and unreliable data practices (Majam & Jarbandhan, 2022). Therefore, these results deepen understanding of HR analytics through a theoretical perspective by integrating the socio-organizational and perceptual dimensions into a unified explanatory framework for HR analytics adoption in the developing-economy context.

Theoretical Implications

This research study used a theory of planned behavior framework to explore the key factors that influence employees' adoption of HR analytics. The findings strengthen the theory of planned behavior by offering insights into the contextual factors (motivators and deterrents) that influence the behavioral intention to adopt HR analytics among telecom employees in the twin cities of Rawalpindi and Islamabad, Pakistan. Venkatesh et al. (2012) proposed that future studies should identify other factors and incorporate them in the TPB model. This study showed that fear factors (in terms of myths, wrong perceptions, fear of failure, etc) can harm employees' intention to adopt HR analytics. It can be argued that including the fear factor as a contextual factor in TPB enhances the model and its contribution to the body of knowledge. Additionally, this is the first-ever qualitative study in Pakistan to explain employees' intention to adopt HR analytics in a telecom setting. Policy-makers can use the findings of this study to make effective HR strategies to increase HR analytics adoption.

Managerial Implications

This research offers a holistic understanding of significant determinants impacting telecom employees' adoption of HR analytics. Policymakers should ensure change-oriented leadership in the workplace. Change-oriented leadership is essential to inspiring and motivating the workforce to achieve sustainable business transformation. The hiring criteria need to be revised to include analytical aptitude as a required skill for fulfilling HR duties. Management support, such as the availability of infrastructure and required assistance, is needed to encourage the use of HR analytics. Employees' HR analytics adoption intention can be accelerated if the IT department does not create complex, ambiguous systems. Additionally, training and development programs in the native language, Urdu, may advance understanding of HR analytics, as myths, fear factors, and misperceptions may hinder its adoption.

Limitations and Future Directions

This study has a few limitations. The data are collected only from telecom employees based in the twin cities of Rawalpindi and Islamabad, Pakistan, limiting the generalizability of the findings. The model can be tested and validated in other sectors, e.g., Software houses, banking, healthcare, and the educational sector. The model can be tested using the theory of planned behavior in developed and other developing countries. Future studies can explore other determinants or challenges, such as techno-stressors or algorithmic biases, in the adoption of HR analytics.

Conclusion

Grounded in the theory of planned behavior, six main factors have been explored that impact employees' HR analytics adoption and are integrated into a single HR analytics adoption framework. This research deepened our understanding of the determinants that impact

employees' adoption of HR analytics. The study's findings highlighted five drivers and one barrier, change-oriented leadership, management support, self-efficacy, social influence, data availability, and fear factor, respectively, that jointly form employees' willingness to adopt HR Analytics. Among all these factors, change-oriented leadership and management support emerged as fundamental enablers of HR Analytics, defining a strategic approach and organizational climate that are essential for adoption. Change-oriented leaders inspire followers through their vision of digital transformation, highlight its positive side, and reduce resistance through communication. Management support is crucial for fostering creativity, risk-taking, and openness to new ideas. At the individual level, self-efficacy reinforces employees' confidence when working with a data-driven system. Employees with higher self-belief are more confident in performing tasks effectively. Self-efficacy reduces technology anxiety, and individuals are more likely to experiment with novel and creative abilities. Whereas social influence is found to be pivotal in standardizing HR Analytics as a recognized practice among teams. Peer and industry pressure motivate individuals to adopt HR analytics not as an option but as a much-needed behavior. The availability of reliable, accessible data helps lay the groundwork for successfully operationalising other factors. Lastly, the fear of individuals regarding HR analytics in terms of techno-insecurity, perceptions of complexity, and data security concerns are major hurdles in HR analytics implementation. In general, the findings of this research offer policymakers and managers a practical framework for adopting HR analytics. As a baseline for future studies on HR analytics adoption, it also highlights valuable points for empirical research. It is believed that this work has extended the data-driven HRM literature and will benefit future HR analytics-related research.

This research expands the understanding of HR analytics adoption in the literature in different ways. In the first instance, it captures the elaborative, specific, and contextual understanding of the HR analytics phenomena from the perspective of a Pakistani employee, which has not been addressed in prior research. In the second instance, it brings to the fore new forms of barriers, including but not limited to cultural resistance, myths about analytics, and low data literacy, which have not been exhaustively discussed in the extant literature. In the third instance, it advances the theoretical discussion by clarifying the variables of interest and how the interplay of employees' perceptions, organizational culture, data governance challenges, and the adoption of HR analytics. Therefore, the study provides theoretical and practical insights into why analytics adoption in developing countries is lagging and how organizations can craft more effective approaches to promote data-driven HRM.

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