

#### Reshaping the future of HR: Human Resource Analytics and Talent Management

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#### Abstract

Strategic human resource management is needed in the fast-changing 21st century company environment. Organizations must find new ways to maximize their personnel since human resources management is crucial to success. Human Resource (HR) Analytics has gained significant recognition as a powerful tool in this pursuit, offering valuable insights into HR-related data that facilitate well-informed decision-making. This study analyzes HR analytics and organizational performance, with talent management as a mediating variable. It is a descriptive and explanatory study conducted to analyze the relationship among studied variables. A mixed method approach has been used in which qualitative data was collected through twenty-four interviews and quantitative data from a sample of 245 respondents was drawn through purposive sampling. SPSS analyses quantitative data, while NVivo analyzes qualitative data. Current research helps organizations obtain a competitive edge in a world that is increasingly competitive. The significant findings of the study indicated that HR Analytics plays an important role in organizational performance in the presence of talent management as a mediating variable. The cross-sectional design was used; a longitudinal investigation could provide more information. The understudied variable relationships are studied in the corporate sector only. The research findings emphasize the importance of HR analytics on the success of the corporate sector in Pakistan. This study demonstrated the effectiveness of human resource analytics in enhancing organizational performance by employing talent management. The research findings will make an important contribution to resource-based theory in the context of Pakistan as a developing South Asian country.

Keywords: HR Analytics, Talent Management, Organizational Performance, Resource Based theory, Pakistan, Mediation

#### 1. Introduction

In today's dynamic, globalized and digitally revolutionized business environment, organizations face complex challenges that necessitate the utilization of human resources strategically (Wheelen et al., 2023; Willis, 2023). Effective management of human capital has emerged as a critical factor in determining the performance of organizations, prompting businesses to investigate innovative strategies for maximizing the potential of their employees. Human Resource Analytics (HRA) has become a key tool in this effort, providing insights into human resources data to help make educated decisions (Chen & Yu, 2023; Lamar, 2023).

The field of personnel management has undergone significant evolution over the years. HR decisions at the beginning of the human relations era were often impacted by managers' subjective assessments, personal experiences, and intuitive insights (Wolfe, 2016). As the corporate environment became more dynamic and competitive, the significance of the analytical function of HR in identifying and employing high-performing individuals has increased (Kareska, 2023). Furthermore, machine learning, cognitive computing, and Artificial Intelligence help HR professionals evaluate massive volumes of data to solve difficult HR challenges and improve decision-making (Jain, Chopra & Sharma, 2023; Tambe, 2019).

The HRA entail utilizing data-driven insights to enhance human resources procedures, enhance employee engagement, and make more strategic decisions around talent management (Jain, Tripathi, Malladi & Khang, 2023). Employing a data-driven strategy enables businesses to recognize patterns, anticipate future human resource needs, and align workforce plans with overarching corporate objectives. Consequently, the implementation of HR analytics can have a significant effect on an organization's ability to achieve its performance objectives (Bonilla-Chaves & Palos-Sánchez, 2023).

According to Gemedu and Dhason (2023), Talent Management (TM) is crucial in shaping an organization's personnel by attracting, developing, and retaining top talent. It includes recruitment, induction, training, performance management, and succession planning. The organizations can enhance employee performance and overall organizational effectiveness through effective TM.

The current study investigates the effect of HRA on Organizational Performance (OP). Furthermore, this study investigates the role of talent management in mediating the association between HRA and OP.

#### 1.1. Significance of the study

Many organizations employ HR analytics to gain a competitive edge by obtaining human resource insights and enhancing OP (Abellán-Sevilla & Ortiz-de-Urbina-Criado, 2023). The current research is theoretically and practically significant. This study has used survey questionnaires to assess the role of HRA on OP through the mediation of TM. Whereas for in-depth understanding of HR analytics in Pakistan, 24 interviews are conducted. The theoretical component of this study has examined HR analytics, TM and OP through Resource Based View (RBV). This research will help organizations who are considering using HR analytics to achieve their business goals. Globalization and changing business dynamics have raised HR and management's responsibility to improve and use flexible and capable staff while keeping cost efficiency. Because of this, HR focuses on acquiring and developing top talent. HR analytics help organizations make workforce decisions involving talent management, identifying the best employees, and focusing on training and development to strengthen the organization.

Pakistan's business setting and labor dynamics make HRA and TM effective (Kiran, 2023). This lets businesses tailor their talent strategy to local needs and make data-driven decisions to meet business objectives. Iqbal et al. (2013) found that HRA and people management will become increasingly significant for organization performance, competitiveness, and adaptability in Pakistan. There is a dearth of existing literature pertaining to the combined association of research variables. Therefore, it is imperative to investigate the relationship between HRA, TM, and OP. The existence of this gap has also been acknowledged by Marler and Boudreau (2017) and Qamar and Samad (2022).

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#### 1.2. Research objectives

The research objectives are to study the following in the corporate sector of Pakistan i) The current status of HR analytics, ii) The reasons to adopt HR analytics, iii) The challenges faced in adoption of HR analytics, iv) The effect of HR analytics on OP, v) The effect of HR analytics on TM and vi) The mediating effect of talent management on the association between HR analytics and organizational performance. The research objectives have been analyzed through mixed method (qualitatively & quantitatively).

#### 2. Literature Review

# 2.1. Human Resource Analytics

The discipline of HRA has emerged as a significant area of study in recent years, mostly driven by breakthroughs in data collecting and processing techniques (Maghsoudi, et al., 2023). It is the integration of relevant HR data from various sources, the organizational and workforce analysis on this captured data is performed. Insights are then extracted from the results in order to formulate well-informed decisions that enhance the OP (Alhassora et al., 2017). It aligns HR strategy with organizational goals through evidence-based decision-making (Bankar & Manna, 2023). It aids in workforce planning, succession planning, and identifying employees at risk of leaving the organization (Pandey & Singh, 2023).

A prominent recurring topic within the literature is to the very limited implementation and recognition of HRA by organizations in Pakistan. Many of them are currently in the initial phases of acknowledging the significance of making human resources choices based on data analysis (Kiran et al., 2023). Several studies have examined HRA, talent management and employee retention association. Organizations are increasingly using analytics to identify and retain top performers, which boosts OP (Conte & Siano, 2023; Mer, 2023).

## 2.2. Talent Management

TM is essential to HR and organizational strategy, identifying and developing exceptional personnel to achieve desired goals (Avedon & Scholes, 2010). Researchers examine various facets of TM, including attraction, recruitment, training, development, performance management, talent evaluations, rewards and recognition, engagement, and retention, among others (Ejikeme, 2023; Ngonyama-Ndou, 2023).

Decision-making that is informed by data managed through analytics is gaining prominence as an essential skill for professionals working in TM (Shet, 2021). Talent management in Pakistan has become more important as businesses compete globally and manage a diverse workforce (Abbas et al., 2023).

## 2.3. Organizational performance

The concept of organizational performance is multifaceted, encompassing diverse dimensions that pertain to the operation of an organization (Van De Voorde et al., 2012). Scholarly works frequently underscore various facets of OP, encompassing financial, operational, strategic, and social performance (Cosa & Urban, 2023). Various researchers have studied the associations between HR and OP, the correlation between employee satisfaction, engagement, and the resulting outcomes in terms of performance (Bizzi, 2023; Chen et al., 2023; Nyathi & Kekwaletswe, 2023). Moreover, research studies have established a positive correlation between the adoption and proficient utilization of technology, encompassing information systems, digital transformation, and enhanced performance (Fitria et al., 2023; Hoang & Le Tan, 2023).

#### 3. Theoretical Framework and Generation of Hypotheses

The Resource based view (Barney, 1991) serves as the theoretical foundation for this study in order to comprehend the relationship among studied variables. After identifying competitive advantage sources, a RBV can assess how HRA related characteristics of these sources help gain competitive advantage (Marler & Boudreau, 2017). Most HRA and performance research uses strategic management frameworks (Perano et al., 2023). In this respect, HRA is linked to performance gains through TM because it is a unique resource that organizations can use to gain a competitive advantage.

Management scholars have traditionally used the resource-based perspective to determine the relationship between big data and performance (Singh et al., 2022). In this model, organizations can improve the impact of HRA on OP by enhancing talent management.

#### 3.1. Relationship between Human Resource Analytics and Organizational Performance

The correlation between HR analytics and OP is significant and symbiotic. The application of HR analytics, when executed proficiently, can yield substantial enhancements in organizational performance (Penpokai et al., 2023). The use of HRA has the ability to improve the recruitment and selection process leading to better hiring choices and performance results (Madhani, 2023). Performance data can help HRA identify skill gaps and training needs. This helps organizations customize training and development programs to enhance employee's performance. HR analytics can assist organizations in identifying causes of employee turnover and disengagement. By addressing these concerns, organizations retain top talent, resulting in enhanced performance and productivity (Krishnan, 2023).

According to Ameer (2023) and Huang et al., (2023), HRA assist in integrating HR practices with business goals and improve financial, operational, and strategic performance. Hence hypothesis H1 is derived.

H1: There is an association between Human Resource Analytics and organizational performance.

# 3.2. Relationship between Human Resource Analytics and Talent Management

The association between HRA and TM is closely related and mutually supportive. Modern HR practices combine HRA and TM to improve an organization's workforce and achieve its strategic goals (Lokesh & Harish, 2023). The HRA provides data and insights to enhance data-driven and evidence-based personnel decision-making. The HRA aid talent managers find prospects by evaluating historical data on successful hires and their traits (Cho et al., 2023; Madhani, 2023). Furthermore, it detects skill gaps, optimize hiring, and boost employee retention (Ali & Elias, 2023). Talent management can use HRA to uncover diversity gaps and biases in recruiting and promotion to promote inclusion. By monitoring key metrics, organizations may assess their people management strategies and improve them (Cho et al., 2023).

Hence from the above discussion hypothesis 2 is derived.

H2: There is an association between Human Resource Analytics and Talent Management.

# 3.3. Relationship between Human Resource Analytics and Organizational Performance in the Presence of Talent Management as Mediating Variable

Talent management includes recruiting, selecting, developing, and training employees. Moreover, TM often includes clear performance criteria, constant feedback, and recognition and incentives for top performers. These techniques boost individual and team performance, contributing to the company's success (Dametor & Amanawa, 2023; Promise-Elechi & Onuoha, 2023).

Talent management has the potential to function as an intermediary factor between the utilization of HR data and the overall success of a business. The HRA has the capacity to provide valuable data and discernments that can effectively guide the formulation and implementation of talent management initiatives. Talent management, in turn, employs these tactics to optimize the caliber and effectiveness of the workforce. Hence, Utilizing HRA results in effective talent management that improves the overall performance of the organization (Douthitt & Mondore, 2014; Ramachandran et al., 2023; Zhang et al., 2021).

According to Mukhuty et al. (2022) talent managers use HRA to identify skill gaps and training needs for focused development programs. It predicts turnover using attrition factors. These insights can help TM boost employee retention and corporate performance. HR analytics disclose employee performance, potential, and leadership readiness for succession planning (Al Awadhi & Muslim, 2023).

From the above discussion H3 is derived.

H3: Talent management mediates the relationship between Human Resource Analytics and organizational performance.

#### 4. Methodology

It is a descriptive and explanatory study framed in a cross-sectional research design. The targeted population consisted of nine corporate sector organizations operating in Lahore, each specializing in a distinct industry: food and beverage, agriculture, consumer electronics, banking, and information technology. The Mixed Method approach has been used. Twenty-four in-depth interviews with members of the recruiting team were done to ascertain and comprehend the status, reasons and challenges of adoption of HR analytics and its associated issues in Pakistan's corporate sector. A sample of 245 respondents has been drawn through purposive sampling. The survey questionnaires had been adapted for gauging quantitative data.

#### 5. Results & Discussions

SPSS is used to analyze quantitative data, while NVivo is employed for qualitative analysis.

Table 1: Reliabilities and Intercorrelations among Variables

Mean SD SE 1 2

Variable	Mean	SD	SE	1	2	3
HR Analytics	50.45	8.910	.7131	.857		
Organizational Performance	23.01	3.681	.2935	.303**	.801	
Talent Management	19.61	3.671	.2940	.452**	.434**	.702

Internal consistency reliability is bolded and shown diagonally; \*\* correlation is significant at the 2-tailed 0.01 level. Table 1 highlights that all variables are reliable and can be used for further data analysis. All variables have Cronbach value > 0.7 that fulfills Nunnally and Bernstein's (1994) criteria. HR Analytics has positive and significant association with organizational performance and Talent management p < 0.01.

**Table 2: Mediation Analysis** 

Variable/Effect	В	SE	t	p	95% Confider	nce Interval	
H1: HRA -> OP	.1330	.0690	1.9268	.0554	-0.0031	0.2691	
H2: HRA -> TM	.3500	.0479	7.3038	.000	0.2555	0.4444	
H3: HRA -> TM -> OP	.4782	.0891	5.3673	.000	0.3026	0.6539	
Effects							
Direct	.1330	.0690	1.9268	>.054	-0.0031	0.2691	
Indirect	.1674	.0475			0.0881	0.2724	
_ Total	.3004	.0656	4.5814	< .001	0.1711	0.4296	

Based on 5000 bootstrap samples, HRA = Human Resource Analytics, OP = Organizational Performance, TM = Talent Management

A bootstrapping method was performed using SPSS Process Macro to examine if TM mediated the relationship between HRA and OP. Table 2 depicts that for H1, b = 0.1330 and t = 1.926 (p > .05). As there is occurrence of zero in confidence intervals H1 is not accepted. Which means that HRA is not a significant predictor of organizational performance. H2 is related to the effect of HRA on mediating variable. As the results show (b = 0.350, t = 7.303, p < 0.01), HR analytics is a significant predictor of talent management. Hence H2 is supported. Next, the effect of HRA on OP in the presence of TM is studied, for which (b = 0.47, t = 5.367, p < 0.01). Hence H3 is supported. The results of the indirect effect based on 5000 bootstrap samples show a significant indirect positive relationship between HR analytics and OP mediated by TM (a\*b = 0.16, Bootstrap CI95 = 0.08 and 0.27). The mediator, TM, accounted for approximately 53% of the total effect on organizational performance [PM = (0.16) / (0.30)]. On the other hand, there was no statistically significant direct effect between HRA and OP. Hence, there is a full mediation.

Table 3: Hierarchical Regression for Parsimonious Model

	Model 1 (OV=TM)	Model 2 (OV=OP)	Model 3 (OV=OP)
R Square	0.2041	0.0917	0.2026
MSE	28.4731	53.3006	47.0150
F	53.3458	20.9889	26.3017
P	0.0000	0.0000	0.0000

Note: OP = Organizational Performance, TM = Talent Management

As shown in Table 3, the three models are studied under model 4 of Process Hayes MACRO. Model 1 represents TM as the dependent variable and HR analytics as the independent variable. Model 2 represents the impact of HR analytics on OP, while Model 3 examines the same impact with TM serving as a mediating variable. The table shows that OP changes by 9 % (F = 20.9889, P = 0.0000) because of HR analytics. A mediation of 20% (F = 26.3017, P = 0.0000) is seen in OP after TM is added as a mediating variable. Thus model 3 is the parsimonious model.

#### 5.1. Qualitative Data Analysis

After conducting interviews, a thematic analysis is done, responses were analyzed themes and codes were generated. Table 4 highlights the themes of the study. In total three themes were identified out of which sub-themes and nodes were formed. The themes are highlighting the central perception and opinion of the participants of the study. The main themes which are generated are also based on the question of the research study.

A word cloud is developed to get a snapshot of important themes. The word cloud has highlighted various notable themes, such as analytics, performance, data, training, engagement, retention, employee, talent, planning, insights, skill, management, data driven, strategic, development etc.

worklovce acquisition conservation optimization alignment quality engagement growth measures in interest optimization analytics.

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Figure 1: Word Cloud

# 5.1.1. Current status and adoption of HR analytics

HR analytics is reshaping talent management in organizations. It is prevalent in numerous organizations of Pakistan. Now it is not just a western discourse. According to respondent (R-4),

"the primary reason for implementing HR analytics in our organization was to transform the company's human resources department into a data-driven unit. The business decisions are made keeping data in mind, it (organization) is having both short-term and long-term benefits."

Moreover, in view of R-5

"HR analytics facilitates the establishment of performance benchmarks and the objective evaluation of employee performance. This ensures the fairness and transparency of performance management processes. Utilizing data, managers in Pakistan can provide constructive feedback and promote the professional development of their teams."

When asked how data helps manage human resources, one respondent said:

"HR analytics are utilized by organizations to monitor employee reporting times, enabling them to determine whether employees arrive at the office on time or arrive late. This information is utilized to determine the employee absenteeism ratio. The entirety of the data is utilized to examine the employee profiles, and it also facilitates the evaluation of employees' job performance and enthusiasm" (R-9)

Table 4: Themes, Nodes	nd Supporting Narration
------------------------	-------------------------

Themes	Nodes	Supporting Narration Supporting Narration
T1: Reasons to adopt HR	Data driven insights, Workforce planning by data,	"HR analytics was implemented because companies are becoming more data-driven;
Analytics	Performance metrics for TM	therefore, it was crucial for the business to employ HR analytics. The HR Analytics
ST 1.1 Informed		was intended because the company was concentrating on delivering more value by
decision making		making more data-driven decisions." (R-3)
1.2 Recruiting and	Targeted data analysis, Applicant fit through data,	"HR analytics helped the organization succeed by avoiding and reducing misbalances
Hiring Improvements	Objective recruitment	as all divisions and departments made decisions based on facts and numbers. The
1.3 Employee	Develop satisfaction, Employee preferences	major reason we started HR Analytics in our firm was to make better judgments by
engagement and	Individualized retention strategies, Identify attrition	using HR facts and data." (R-10)
retention	•	"The organization decided to use HR analytics because it wants to become a
1.4 Performance	Unbiased performance analysis, Continuous feedback	successful business. One way they plan to do this is by keeping an eye on the HR
management	Aligning personal and organizational goals	practices and how they can help the organization, which will improve the human
1.5 Training and	Skill gaps, Assessment of training effectiveness	capital of the company." (R-5)
development	Training needs analysis, Individualized training plans	"At our organization, HR analytics is part of our culture. We strive to maximize
1.6 Diversity and	Diversity indicators, Identifying differences	employee skills. If an employee isn't suited for a position, we schedule a counseling
inclusion	Inclusive culture, Assessing diversity effects	session and transfer them to one that suits them. This is why we favor internal hiring.
1.7 Cost optimization	Analyzing HR costs, Optimize resource allocation	We can maximize our trained staff's use for varied functions, which improves their
	Saving opportunities, Return on investment analysis	talents. This helps save time and money." (R-2)
T2: HR Analytics	Data accessibility and quality, Change in HR Processes	"I think the rigidity of some of the employees and workers of HR towards the adoption
adoption challenges	Insufficient Analytical Skills, Resistance to Change	of automatic systems is one of the biggest issue that is creating Since there are
	Difficulty in integration, Change in HR Processes	some employees who are reluctant to use the HR Analytics." (R-4)
	Support from top, Data Privacy and Security	"The software we are using lacks some of the customized options and features as we
	Analytics return on investment Evaluation	are at initial stages. Even there are updated versions of the software available but I
	Insufficient Budget and Resource	think it must have customization features so that we can use that according to our
		nature of data." (R-1)
T3: HR Analytics'	Evidence based HRM, Effective talent acquisition	"The purpose of talent management is to engage and properly manage talent so that
impact on talent	Improved orientation, Optimizing performance	they can contribute to the company's productivity and help achieve its goals and
management	Individualized learning and development	objectives." (R-11)
	Retention techniques, Better succession planning	"We hunt talent in the market through talent management. The talent management
	Diversity and inclusion improvement	center finds the best applicant in the market and recruits them at the right moment with
	Strategic HR planning	the relevant capabilities" (R-6)
		"Our staff must also undergo various trainings. We have shift managers, area
		managers, and regional managers. Trainings are done at every level. We also offer
		store-level learning programs for our personnel. All these actions are done to develop
N . T . 1		our talent management personnel." (R-9)

Note: T =theme, ST =Sub theme, R =respondent

Most participants said all the data helps in managing them because it offers all the human resources information. If there is a vacancy, the candidate is searched, shortlisted, interviewed, and then recruited based on his or her work. He or she is then trained, given a reporting time and attendance sheet, paid, and evaluated at the end of the year to improve or fit their job.

# 5.1.2. Challenges faced in adoption of HR Analytics

HRA implementation can be extremely advantageous for organizations, but it is not without its challenges. From interviews the mostly discussed challenges being faced by corporate sector of Pakistan as mentioned in Table 4 are difficulty in availability and quality of data, adopting HRA in processes, insufficient skills to analyze data, difficulty in integrating analytics in HR, lack of leadership endorsement, problems of privacy and security of data, lack of funds and resources and difficulty in measuring HR analytics returns.

# 5.1.3. Impact of HR Analytics in managing the Talent Management

From Table 4 it is evident that HR analytics enables organizations to make evidence based decisions in the area of personnel management. It aids HR experts in strategic planning resulting in effective talent acquisition, improved orientation, individualized learning and development. It is further followed by optimizing performance, retention techniques, better succession planning and improving diversity and inclusive culture.

According to R-5,

"HR analytics is helping Pakistani firms enhance talent management by delivering insights that improve decision-making, talent acquisition and development, employee engagement, and competitiveness and success. Employee data must be handled properly and in accordance with privacy laws."

The respondent no. 7 added that,

"Organizations utilize the program to find the best candidate for vacancies. HR analytics find and reach talent. All the employee's data is then entered into the software and entered their code and profile. After that, various tests are utilized to evaluate the employee's progress and performance over time."

## 5.2. Discussion

After reviewing literature and data analysis, it is evident that HRA has been used by many organizations in Pakistan. It is implemented in organizations to introduce data driven business decisions yielding short and long-term benefits. Moreover, research findings have highlighted various challenges being faced by the corporate sector organizations in adoption of HRA.

HRA is crucial to improving talent management techniques. There is a significant connection between human resource analytics and talent management in Pakistani businesses. The HR analytics-talent management link results in informed decision making, better and improved recruitment and selection, performance management, employee training and development, retention strategies, succession planning, diversity and inclusion monitoring, and continuous improvement.

The study also considers the impact of using and adopting human resource analytics to acquire and retain talent, as well as to cultivate talent within an organization, so that the company can achieve its desired results that is organizational performance. It is much more likely for an organization to achieve long-term success and gain a competitive edge if that organization prioritizes TM and invests in its employees.

To study the mediating effect of TM on the association between HR analytics and organizational performance in corporate sector of Pakistan. HRA provides data-driven workforce insights. This data can uncover high-potential employees, skill gaps, training needs, and improvement opportunities. This data can inform staff management tactics like focused training, leadership development, and performance improvement. Effective TM creates a skilled, engaged, and motivated workforce. This can improve work performance, innovation, attrition, and customer happiness, which boosts OP.

The studied hypotheses, H2 and H3, are empirically and theoretically supported. Contrarily, the H1 is non-significant and could not find support from literature (Edwards & Edwards, 2019; Peeters et al., 2020). It contradicts previous literature narrating positive, direct HRA and OP relationship (Guenole et al., 2017). The second hypothesis related to HRA and TM found to be positive and significant. It is consistent with earlier research (Horesh et al., 2016; Gurusinghe et al., 2021). The H3 is related to the mediating effect of TM on HRA and OP relationship. It is also found to be full mediation and is consistent with research findings of studies (Alam et al., 2021; Nocker & Sena, 2019; Oueidat, 2022; Setyawan, 2021; Shet et al., 2021).

#### 6. Conclusion

Effective HRA implementation can help businesses reshape and manage personnel management effectively that lead to enhance performance. This study contributes to existing literature by studying the use of HRA on OP in corporate sector through TM. A mixed-method approach is used to get better understanding of the relationships. Organizations are utilizing smart technology and systems to analyze data and make decisions across departments. HRA helps organizations manage and analyze human capital data, evaluate organizational performance, and assess economic conditions for informed HR decisions. HRA aids them forecast talent needs, hire candidates at the right time, train employees, retain talent, and increase productivity.

The organization achieves satisfactory results, but achieving higher satisfaction requires time due to the newness of HRA, which was introduced two to three years prior. Organizations experienced issues with HRA, including employee rigidity and lack of customized options. Organizations using HRA recommend adopting analytics in all business operations to improve performance, efficiency, and effectiveness. This leads to rational decision-making and success through automated systems and software.

# **6.1.** Theoretical Contribution

This study has numerous theoretical ramifications. It adds to the body of knowledge on HR analytics-OP relationship via TM. The current study emphasis on use of HR analytics can lead to organizational performance by talent management. The study's findings add to the literature of Resource Based View theory from the corporate sector context of Pakistan. It recommends use of talent management to get the benefits of HR analytics.

#### **6.2.** Practical Contribution

The aforementioned findings highlight the significance of HR analytics on performance of the corporate sector in Pakistan. The value of human resource analytics in improving organizational performance was proved by this study through the utilization of talent management.

## **6.3.** Limitations and Future Implications

The cross-sectional design was employed; a longitudinal study could be undertaken to obtain a more comprehensive understanding. The variables of the current study are examined in the corporate sector. To aid in decision making, such interactions can be examined in numerous other public and commercial sectors, including banking, health, communications, and so forth. To enhance the generalizability of the findings, it is suggested that further investigation be conducted on the identical relationship across various organizations.

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