Factors Affecting to Acceptance and Adaption of HR Analytics of Apparel Companies in Western province Sri Lanka

D. M. T. D. Dissanayake[1] and A. G. M. A. Kumari[2]
[1, 2]Department of Business Management, Faculty of Business Studies & Finance
Wayamba University of Sri Lanka
tanyad@wyb.ac.lk[1], achalak@wyb.ac.lk[2]

Abstract: This study examines the factors influencing the adoption and acceptance of Human Resource (HR) analytics in Sri Lanka's apparel industry, focusing on bridging the gap between theoretical advancements and practical implementation. As HR analytics becomes an essential strategic tool for human capital management, understanding its key drivers is crucial. This research explores the impact of social influence, resource availability, data availability, and HR professionals' self-efficacy on adopting of HR analytics technologies. Using a cross-sectional survey of HR experts in apparel companies, the study finds strong positive relationships among these factors, with data availability and self-efficacy emerging as the most significant predictors. While resource availability shows a positive association, its impact on adoption remains statistically insignificant. The findings highlight the necessity of equipping HR professionals with the required tools and fostering confidence in analytics-driven decision-making. Organizations should prioritize structured training programs and create supportive environments that enable HR specialists to engage effectively with analytics. By addressing key barriers to data-driven HR practices, this study contributes to the broader understanding of HR analytics adoption in developing economies and provides insights applicable to other labor-intensive industries.

Keywords: *Acceptance, Adoption, Apparel Industry, Data Availability, HR Analytics, Self-Efficacy, Social Influence*

Introduction

Human Resource (HR) analytics has become as a pivotal tool in enhancing organizational decision-making, workforce management, and strategic HR functions. It involves the systematic collection, analysis, and interpretation of HR-related data to improve employee performance, optimize resource allocation, and align HR strategies with business objectives. In an era where data-driven decision-making is gaining prominence, HR analytics plays a crucial role in transforming traditional HR practices into evidence-based management approaches. Despite its growing significance, the adoption and acceptance of HR analytics remain limited, particularly in developing economies such as Sri Lanka.

In Sri Lanka, the apparel industry remains a critical driver of economic growth, contributing substantially to employment, export revenues, and foreign direct investment (Dheerasinghe,2017**).** However, the industry faces significant human resource challenges, including high labor turnover and absenteeism, which hinder productivity and organizational performance (Welmilla, 2020). Globally, Human Resource (HR) analytics benefits organizations by streamlining processes and reducing workforce demands. However, these advantages have yet to be fully realized within Sri Lanka's apparel sector, where limited adoption restricts the utilization of

HR data for optimizing HR practices (Marler & Boudreau, 2017). Recent studies indicate that behavioral factors significantly impact the organizational adoption of HR analytics in Sri Lankan large-scale apparel companies, suggesting that addressing these behavioral aspects could enhance adoption rates (Hettiarachchi et al., 2021).

The objectives of this study are twofold: firstly, to identify the primary factors affecting the adoption of HR analytics among HR professionals in apparel companies located in the Western Province of Sri Lanka, and secondly, to examine how these factors influence the intention to adopt HR analytics. The research investigates four critical factors: social influence, resource availability, data accessibility, and HR professionals' self-efficacy in using analytic tools. A literature review indicates a rising interest in HR analytics adoption, especially in developing economies (Davis, 1989). Nevertheless, empirical studies on HR analytics within the apparel sector in third-world countries, including Sri Lanka, remain scarce. Theories such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and Innovation Diffusion Theory (IDT) provide valuable frameworks for understanding technology adoption, particularly highlighting social influence and resource availability. This study aims to address these gaps by identifying the research problem that focuses on the limited adoption of HR analytics in apparel firms in the Western Province of Sri Lanka, despite its recognized benefits. While many companies are beginning to recognize the importance of HR analytics, the gap between its perceived usefulness and actual application remains largely unexplored (Reddy & Lakshmikeerthi, 2017). A significant barrier is the lack of awareness and understanding of HR analytics among HR professionals and business leaders (Angrave, et al., 2016). Additionally, challenges such as scarcity of labor, poor work ethics, and low attractiveness of the industry further complicate the adoption of innovative HR practices like analytics (Welmilla, 2020). This research aims to identify the factors influencing the adoption of HR analytics, enabling apparel firms to overcome these barriers and embrace data-driven HR practices. One major barrier is the limited awareness and understanding of HR analytics among HR professionals and senior management, particularly regarding its applications and potential benefits (Angrave et al., 2016).

Literature Review

Relationship between Literature and Problem Statement

The problem statement of this research specifically points out the contradiction between the recognition of the importance of Human Resources (HR) Analytics and its low adoption rates among organizations, especially in the Sri Lankan apparel industry. In Sri Lanka's Western Province, the acknowledged importance of HR Analytics is not reflected in its limited adoption. While there is a growing recognition that HR Analytics can be a valuable source of data-driven decision-making and improved organizational performance, only a small percentage of companies have successfully implemented it. A key barrier to this adoption is the limited awareness and understanding of HR analytics, which hinders effective implementation across the industry (Hettiarachchi et al., 2021). This discrepancy between the perceived value and actual application of HR Analytics forms the core of the research problem.

The literature review has provided a comprehensive background and context for understanding the research problem by examining prior studies and theoretical frameworks related to HR Analytics.

Thus, it has clarified the factors that influence the acceptance and adoption of such technology.

One of the main aims of the literature review is to clearly define and trace the development of HR Analytics over time. This will include a discussion of early influential works in the field (Lawler, et al., 2004). These two first works on the subject had an impact on the understanding of the importance of HR data and metrics in making decisions strategically. It will also, however, include a review of recent studies that have been done on HR Analytics and how it has improved talent acquisition, employee retention and performance management (Marler & Boudreau, 2017) Recent studies emphasize that HR Analytics is now advancing towards predictive and prescriptive analytics, allowing organizations to make forward-looking decisions based on employee behavior patterns and business needs (Minbaeva, 2021). This shift has led to an increased demand for HR professionals with analytical capabilities, yet many organizations, particularly in emerging economies, struggle with talent gaps in this area (Huselid, 2018).

Apart from these theoretical foundations, the literature review will discuss empirical studies that have researched the specific factors affecting HR Analytics adoption. For instance, research has shown that culture, top management support, and data quality are the critical determinants for the successful implementation of HR Analytics (Angrave, et al., 2016). The outcomes of these different streams of literature will be integrated in the review, evaluating the present state of knowledge concerning HR Analytics adoption. This will lead to the identification of specific research gaps aiming for the present study, specifically, the exploration of HR Analytics adoption cases in the. Apparel industry context of Sri Lanka's Western Province.

Acceptance and Adoption of HR Analytics (Dependent Variable)

The success of HR analytics in organizations hinges on the acceptance and adoption by HR professionals. Acceptance refers to the willingness to use HR analytics, while adoption is the integration of these tools into daily practices (Venkatesh et al., 2003). Key factors influencing these processes include perceived usefulness and perceived ease of use. HR professionals are more likely to adopt HR analytics if they believe it will enhance their job performance and if the tool is user-friendly and requires minimal effort (Davis, 1989). Moreover, top management support and a data-driven culture have been identified as crucial enablers of HR analytics integration (Margherita, 2021).

While the relationship between these factors has been well explored in developed countries, there is limited empirical research on HR analytics adoption in the context of the apparel industry in developing countries like Sri Lanka. Further, individual factors such as age, education, and job tenure, along with organizational factors like management support, size, and culture, likely shape HR professionals' attitudes toward analytics. However, the comparative importance of these factors remains underexplored in existing literature.

In addition to acceptance and adoption, barriers and resistance to HR analytics adoption warrant further investigation. Common challenges such as lack of skills and resource shortages (Vargas, 2015) have been identified, but there is limited empirical data on the specific fears and obstacles HR professionals face in implementing HR analytics. Understanding these barriers will help organizations better support HR professionals in overcoming challenges

and adopting HR analytics. For instance, recent studies suggest that limited investment in HR analytics training programs and inadequate change management strategies hinder successful adoption in many organizations (Tursunbayeva et al., 2021). Furthermore, the perceived complexity of HR analytics tools contributes to resistance among HR professionals who lack technical expertise (Jatobá et al., 2022).

This research aims to fill these gaps by exploring the factors influencing HR professionals' acceptance and adoption of HR analytics in the Sri Lankan apparel industry and identifying the barriers they face in this process.

Factors Influencing the Adoption and Acceptance of HR Analytics in the Apparel Industry in Sri Lanka

Human Resource (HR) Analytics, leveraging data-driven techniques to enhance employee management and organizational performance, has gained significant traction in global corporations. As a result, organizations like Google, Sysco, and Convergys have adopted HR analytics to improve employee engagement, retention, and overall productivity (Angrave et al., 2016). Despite its success in various sectors, the adoption of HR analytics remains limited in developing countries such as Sri Lanka, particularly in industries like apparel. This study explores key factors influencing the adoption and acceptance of HR analytics in the apparel sector of Sri Lanka. Recent studies emphasize that while global enterprises have successfully integrated HR analytics, adoption challenges persist in developing economies due to structural and cultural barriers (Margherita, 2021; Tursunbayeva et al., 2021). Additionally, regulatory policies and workforce digital literacy levels play a pivotal role in shaping adoption patterns in emerging markets (Minbaeva, 2022). This study explores key factors influencing the adoption and acceptance of HR analytics in the apparel sector of Sri Lanka.

Social Influence

Social influence is a critical determinant in the acceptance of HR analytics. According to Rogers' Innovation Diffusion Theory (IDT), an individual's decision to adopt a technology is strongly shaped by the perceptions and behaviors of peers and superiors (Rogers, 2003). Research indicates that the social environment, including colleagues' attitudes toward technology, significantly impacts technology adoption decisions (Venkatesh et al., 2003). In Sri Lanka's apparel industry, HR professionals are more likely to adopt HR analytics when they observe the adoption and support of it by influential peers and leadership. Recent studies have highlighted that social influence extends beyond immediate colleagues and includes industry-wide best practices and regulatory expectations, which can drive HR analytics adoption (Margherita, 2021; Tursunbayeva et al., 2021). In Sri Lanka's apparel industry, peer benchmarking and exposure to international HR analytics trends may also serve as catalysts for adoption (Minbaeva, 2022). However, existing literature highlights a gap in understanding the specific role of social influence in HR analytics adoption in developing countries like Sri Lanka (Mikalef et al., 2020).

Hypothesis 1 (H1): Social influence has a significant positive impact on the acceptance and adoption of HR analytics among HR professionals in apparel companies in the Western Province of Sri Lanka.

This hypothesis was founded on both the theory of innovation diffusion, or IDT, and the unified theory of technology acceptance and use, or UTAUT, which orbits around these topics suggesting that

a person for example takes up the use of technological innovations critically depending on important others, whose opinions and behaviour he allows himself to be influenced by. This means that they are either the causes themselves or the reasons for their adoption by the one that has this kind of innovation. (Venkatesh, et al., 2003) In terms of HR analytics if surveyed HR professionals are supported and encouraged by their colleagues, supervisors, or top management to use HR analytics they will be more likely to accept and adopt this technology.

Resource Availability

The availability of resources, both technical and human, is essential for the successful implementation of HR analytics. Organizations need to invest in the necessary infrastructure, such as software and analytics tools, and ensure their staff is well-trained in data analysis (Marler & Boudreau, 2017). However, resource constraints often hinder the adoption of HR analytics, particularly in smaller organizations within developing economies (Stone et al., 2015). Moreover, the shortage of adequately trained HR professionals capable of analyzing and interpreting data exacerbates the situation (Margherita, 2021). In Sri Lanka, apparel companies face significant challenges related to the availability of skilled professionals and modern technologies required to implement HR analytics, which limits its broader adoption.

Hypothesis 2 (H2): Resource availability has a significant positive impact on the acceptance and adoption of HR analytics among HR professionals in apparel companies in the Western Province of Sri Lanka.

Part of the TOE (Technology-Organization-Environment) model is the genesis of this assumption, which argues that specific technological adoption is highly dependent on the available resources and infrastructure of an organization (Tornatzky & Fleischer, 1990). In this case of HR analytics, it is expected that HR professionals would accept and adopt this technology through the possession of the necessary systems, software, data, and support (Akter et al., 2016). However, lacking access to cutting-edge technological resources such as advanced analytics tools and data integration platforms significantly impedes adoption (Minbaeva, 2022). If, however, they do not have enough resources, HR professionals are the ones who will not be able to use HR analytics effectively, even if they remain optimistic and intent on doing so (Vargas, 2015).

Data Availability

Data availability is another critical factor influencing the adoption of HR analytics. To effectively utilize HR analytics, organizations must have access to reliable, comprehensive, and timely data. Fragmentation of data across disparate systems can pose a significant barrier to its integration and analysis (Westerman et al., 2014). In Sri Lanka's apparel industry, many organizations still struggle with data quality and accessibility issues, which impacts their ability to use HR analytics effectively. This challenge is consistent with findings from studies in other developing nations, where data availability and integration remain significant obstacles to the effective adoption of HR technologies (Kiron et al., 2014).

Hypothesis 3 (H3): Data availability has a significant positive impact on the acceptance and adoption of HR analytics among HR professionals in apparel companies in the Western Province of Sri Lanka.

According to this hypothesis, ensuring the availability of quality data and being able

to easily access that data is crucial for the successful therapy of HR analytics (Levenson & Fink, 2017); (Reddy & Lakshmikeerthi, 2017). The implementation of HR analytics hinges on the presence of appropriate, precise, punctual diversified HR using data obtained from, for instance, HRIS, performance management systems, and employee surveys (Marler & Boudreau, 2017). If HR practitioners seem that the required information is widely available and reliable, they are inclined to embrace and utilize HR analytics (Angrave, et al., 2016). However, recent findings emphasize the need for organizations to overcome data silos and ensure that data is consistently available across systems to make the most of HR analytics tools (Bharadwaj et al., 2021). Hinder HR analytics adoption, inconsistencies, data silos, and incompleteness are the things (Gale, 2012). Additionally, emerging research underscores the role of data integration platforms in enabling seamless access to necessary HR data (Hossain & Liew, 2021).

Self-Efficacy

Self-efficacy, defined as an individual's belief in their ability to effectively perform a task, is a crucial factor in the adoption of HR analytics. High self-efficacy increases an individual's confidence in using new technologies and significantly contributes to technology acceptance (Compeau & Higgins, 1995). Previous research has shown that HR professionals with higher self-efficacy are more likely to adopt HR analytics (Cascio & Boudreau, 2016). In the context of Sri Lanka's apparel industry, however, a lack of training and exposure to advanced analytics may hinder HR professionals' self-efficacy, affecting their willingness to adopt such tools (Bertot et al., 2012).

Hypothesis 4 (H4): Self-Efficacy has a significant positive impact on the acceptance and adoption of HR analytics Among HR professionals in apparel companies in the Western Province of Sri Lanka.

The above-mentioned hypothesis is based on theoretical concepts and empirical evidence which state that self-efficacy would significantly and positively influence HR analytics adoption and acceptance among sewn garments companies in the Western Province of Sri Lanka. It is expected that HR managers with a strong sense of self-efficacy will perceive the use of HR analytics to be easier and more useful which in turn will make them more likely to accept and adopt these in their organizations. Conversely, HR managers with low self-efficacy may view HR analytics as challenging and less useful, resulting in a lower likelihood of acceptance and adoption.

The four hypotheses mentioned aimed at addressing the relationship between social influence, resource availability, data availability, fear appeals as well as the acceptance and adoption of HR analytics by HR professionals in the apparel companies in the Western Province of Sri Lanka. Through the testing of these hypotheses, the present study aims to offer insights into the priority and the effect of each factor on the adoption of HR analytics within the measured contexts. The results provide guidance for forms of strategies and initiatives through which companies can realize the successful management and utilization of HR analytics in the garment sector.

Theories

The acceptance and adoption of HR Analytics in the apparel industry in Sri Lanka can be comprehensively understood through well-established technology adoption theories. This study primarily employs the Unified Theory of

Acceptance and Use of Technology (UTAUT) and the Innovation Diffusion Theory (IDT) to examine the factors influencing HR professionals' willingness to integrate HR Analytics into their decision-making processes.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), is widely regarded as one of the most robust models for explaining technology adoption. UTAUT posits that four key determinants influence an individual's intention to use technology: performance expectancy, effort expectancy, social influence, and facilitating conditions.

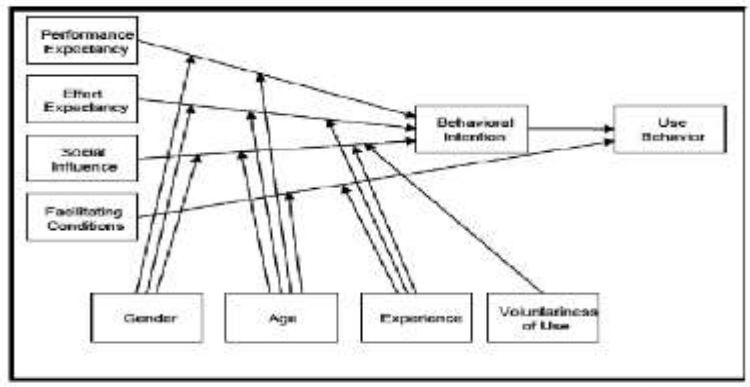

Figure1: Unified Theory of Acceptance and Use of Technology (UTAUT)
(Source: Venkatesh Et Al., 2003)

In the Sri Lankan apparel sector, social influence and facilitating conditions are particularly critical. HR professionals are more likely to adopt HR Analytics if they receive strong managerial support and if the necessary infrastructure is available.

Innovation Diffusion Theory (IDT)

The Innovation Diffusion Theory (IDT), developed by Rogers (2003), explains technology adoption through five key attributes.

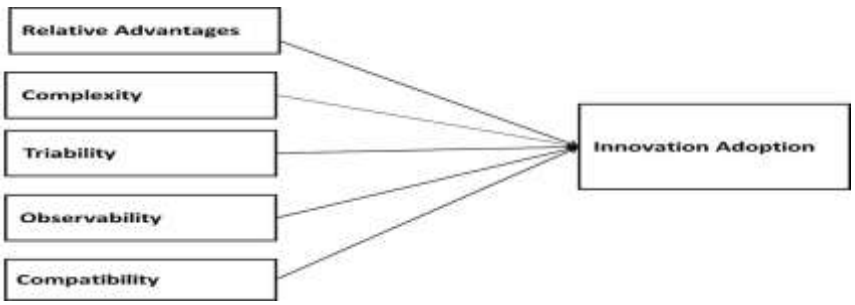

Figure 2: The Innovation Diffusion Theory (IDT)
(Source: Rogers, 2003)

Relative advantage refers to the perceived benefits of HR Analytics over traditional HR methods. Organizations that recognize its value in strategic decision-making are more likely to adopt it. Compatibility relates to how well HR Analytics aligns with existing HR practices, with seamless integration increasing the likelihood of adoption.

However, complexity can act as a barrier, as HR professionals may struggle with technical aspects. Trialability, or the ability to experiment with HR Analytics before full implementation, plays a crucial role in fostering confidence among users. Lastly, observability, or the visibility of successful outcomes, can encourage widespread adoption.

In Sri Lanka, while HR professionals acknowledge the advantages of HR Analytics, challenges such as complexity and limited trialability hinder adoption. Many organizations lack the necessary resources and expertise, emphasizing the need for training and capacity-building to facilitate successful integration.

Theoretical Integration and Contextual Adaptation

The Unified Theory of Acceptance and Use of Technology (UTAUT) and the Innovation Diffusion Theory (IDT) provide valuable insights into technology adoption; however, they do not fully address industry-specific challenges such as data privacy concerns, gaps in analytical skills, and organizational resistance (Angrave et al., 2016). Hofstede's (2001) cultural dimensions theory further explains that cultural factors such as high-power distance and collectivism in Sri Lankan workplaces shape HR professionals' attitudes toward technology adoption. In Sri Lanka, employees often rely on directives from senior management before embracing new tools, highlighting the critical role of leadership advocacy in the integration of HR Analytics.

Conceptualization of Research Model

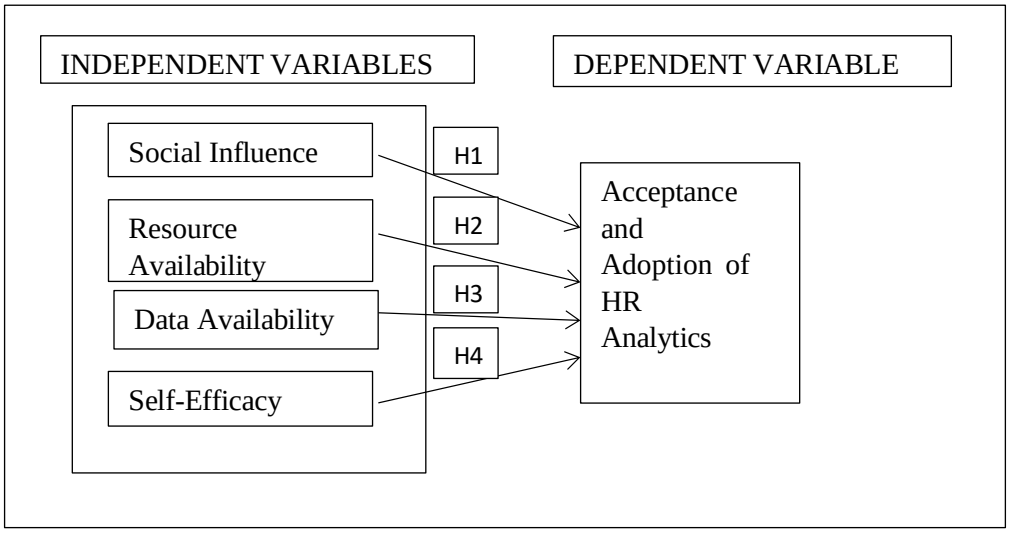

Figure 3: Conceptual Framework

Source: Developed by Author based on Literature

The study model is designed to investigate the factors influencing HR professionals in adopting and accepting HR Analytics at Apparel Companies in Western Sri Lanka. It is assumed that social influence, resource availability, availability of data, and self- efficacy are the main factors contributing to acceptance and adoption. The conceptual model provides several important contributions relevant to the apparel industry in Sri Lanka. Firstly, it applies the innovation acceptance theories in HR Analytics innovation those to elements that are most significant in the professional group of HR. Secondly, it takes into account the perspectives of various theoretical frameworks of overlapping disciplines to formulate a cohesive account of the HR Analytics acceptance process.

Methodology

This study employs a quantitative cross-sectional survey design to examine factors influencing HR analytics adoption in Sri Lanka's Western Province apparel industry. A standardized questionnaire was used to ensure reliability and consistency in responses (Saunders et al., 2019). To address potential response bias, the questionnaire underwent pilot testing before data collection. The study adopts a structured approach to sampling, ensuring representativeness and reducing bias in data collection.

Population

The population of this study consists of HR managers in apparel firms within Sri Lanka's Western Province, with over 1,200 professionals identified through SLAEA and BOI records. Given their role in HR analytics adoption, they provide relevant insights, but surveying the entire population was impractical due to time and resource constraints.

Sample

A sample of 205 HR managers was selected using stratified random sampling, categorizing firms into small (100–500 employees), medium (501–1,000), and large (1,000+). The sample distribution ensured representativeness. Participants were contacted via email or phone**,** provided with an online survey link**,** and assured of confidentiality and voluntary participation.

Sampling Technique

A stratified random sampling technique was employed, categorizing firms into small (100–500 employees), medium (501–1000 employees), and large (over 1,000 employees) (Bryman, 2016). This method enhances representativeness and minimizes selection bias.

HR managers were invited via email or telephone, provided with study details, and assured confidentiality and anonymity. A secure online survey link was shared with clear completion instructions to facilitate participation.

Operationalization of variables

Table 1: Operationalization of Variable

Variable	Dimensions	Indicators	Measurement	Source

Social influence	Subjective Norm, Social Factors, image	• Support,helpfulness of senior management • Support of the organization in general for using HR Analytics • organization culture	5-point Likert scale	(Abu-Tayyoun, 2018)
Data Availability	Data Accessibility, Data Quality, Data Relevance	• Availability of all needed data in the organization's database to use HR Analytics software • The HR system collects data from all HR functions/interactions • The organization uses the same system/platform for HR activities • Ease of accessing the database to get the data needed for HR analytics	5-point Likert scale	Harley (2015)
Resource Availability	HR Analytics systems, Software, Expertise	• Availability of necessary recourses to use HR Analytics • Possessing the required knowledge to use HR Analytics • Ease of using HR Analytics when resources, opportunities and Knowledge are available • Compatibility of HR Analytics with other technologies used • Ability to get help from others when facing difficulties in using HR Analytics.	5-point Likert scale	(Abu-Tayyoun, 2018)

Data presentation and analysis

The collected data were analyzed using descriptive and inferential statistics. Descriptive statistics summarized demographic characteristics and key variables, while inferential analysis, including regression analysis, was conducted to examine the relationships between the identified determinants and HR analytics adoption. SPSS was used for statistical computations, ensuring accuracy and reliability in data interpretation. The findings provide empirical insights into the factors influencing HR professionals' acceptance and use of HR analytics in the apparel industry of Sri Lanka's Western Province.

Demographic Profile

Table 2: Sample Profile Summary

Demographic Category	Subcategory	Percentage	Frequency (n=196)
Occupation	Human Resource Management	22%	43
	Benefits and Compensation	19%	37
	Performance Management	18%	35
	Training and Development	16%	31
	Recruitment	13%	25
	Employee Engagement	12%	24
Age	Below 35 Years	35%	69
	35 to 45 Years	43%	84
	Above 45 Years	22%	43
Gender	Male	58%	114
	Female	41%	80
Educational Level	Diploma or below	24%	47
	Bachelor's Degree	50%	98
	Master's Degree	26%	51

Note, N= 196
Source: Researcher Constructed based on Survey Data, 2024

Descriptive Statistics

Reliability and Validity Analysis

Reliability test

To evaluate the reliability, the factors were applied to the study, and Cronbach's Alpha was measured. The Cronbach's alpha is the most common and widely used indicator of consistency that is measured within the limits of zero (0) and one (1). Generally, a Cronbach's Alpha score of 0.7 and above is seen as satisfactory and, therefore, a sign of consistency (Leung, 2015).

Table 3: Cronbach's Alpha Value

Construct	Number of items	Cronbach's alpha value
Social influence	4	.870
Resource availability	6	.874
Data availability	5	.876
Self-efficacy	7	.930
HR acceptance	5	.880
Overall Cronbach's alpha	27	.967

Source: Survey data, (2024)

The Cronbach's alpha values for the constructs in this study were all above the acceptable threshold, indicating high internal consistency and reliability. The social influence scale achieved a Cronbach's alpha of 0.870, demonstrating strong consistency. Resource availability had a value of 0.874, further confirming its reliability. The data availability scale yielded 0.876**,** indicating good internal consistency. Self-efficacy showed an excellent 0.930, reflecting a very high level of internal consistency. HR analytics acceptance recorded 0.880, which is also considered excellent. Overall, the survey's Cronbach's alpha was 0.967, demonstrating exceptional reliability and making it highly dependable for measuring factors affecting HR analytics adoption in the apparel industry of Sri Lanka's Western Province.

KMO and Bartlett's Test

Table 4: Validity Test

Kaiser-Mayer-Olkin measure sampling adequacy	.931
Bartletts test of sphericity	4517.086

prox. chi- square Difference ap	351
Significance	<.001

Source: Survey data, (2024)

Validity in research refers to the accuracy and trustworthiness of the conclusions drawn from the data. To assess construct validity in this study, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were used. The KMO score of 0.931 indicates that the sample size was appropriate and that the data were suitable for factor analysis. A value closer to 1 suggests that factor analysis is effective, and a value below 0.6 would be considered inadequate. Bartlett's Test of Sphericity, which tests the correlation matrix for inter-variable relationships, was found to be significant ($p < 0.001$), confirming that the variables were correlated and that factor analysis was applicable. Together, these tests provided strong evidence for the validity of the survey instrument, assuring that the collected data were reliable and suitable for drawing valid conclusions. The successful implementation of these tests enhances the overall strength and dependability of the study's findings.

Findings

Among the 205 HR managers who were obtained, a grand total of 196 completed returns were received, creating a response rate of 95%. It also suffices for the conduct of meaningful statistical analyses and drawing of credible conclusions (Tabachnick & Fidell, 2013). The demographic results showed that the majority of them were characterized as working in human resource management (22%) and most respondents fell between the age of 35-45 years. The descriptive analysis conducted revealed the mean scores for the significant constructs to be in the brackets of 3.8482 and 4.0316.

Table 5: Correlation

		Social influence	Resource availability	Data availability	Self-efficacy	Adaptation of HR analytics
Social influence	Pearson correlation	1	.731	.685	.780	.743
	Sig (2-tailed)		<.001	<.001	<.001	<.001
	N		196	196	196	196
Resource availability	Pearson correlation		1	.643	.777	.708
	Sig (2-tailed)			<.001	<.001	<.001

	N			196	196	196
Data availability	Pearson correlation			1	.738	.743
	Sig (2-tailed)				<.001	<.001
	N				196	196
Self-efficacy	Pearson correlation				1	.794
	Sig (2-tailed)					<.001
	N					196

Source: Survey data, (2024)

Social influence recorded the largest coefficient with the adoption of HR analytics (r = .743, p < .001), which was then followed by data availability (r = .743, p < .001) and resource availability (r = .708, p < .001). Self-efficacy showed a high positive relationship (r = .794, p < .001), meaning HR professionals are more willing to use HR analytics if they are sure of their capabilities.

Table 6: Coefficients

Model		Unstandardized Coefficients		standardized Coefficients Beta	t	Sig.
		B	St. Error			
1	(Constant)	.468	.180		2.600	.010
	Social influence	.203	.069	.199	2.955	.004
	Recourse Availability	.121	.067	.118	1.803	.073
	Data availability	.278	.060	.278	4.623	.001
	Self-Efficacy	.302	.068	.342	4.460	.001

Source: Survey data, (2024)

Regression analysis had shown a high value of the R^2 coefficient of 70.9%. It's impressed by the significance of the independent variables, in forecasting the HR analytics adoption. Social influence (β = 0.203, p = .004), self-efficacy (β = 0.302, p = .001) and data availability (β = 0.278, p = .001) had the strongest influence, while resource availability (β = 0.121, p = .073) had a relatively weaker but still remarkable effect.

Table 7: Testing Hypothesis

Hypotheses	**Coefficient value**	P **value (Sig value)**	**Decision**
H1: Social influence has a significant positive impact on HR analytics adoption.	0.203	0.004	Supported

H2: Resource availability has a significant positive impact on HR analytics adoption.	0.121	0.073	Not Supported
H3: Data availability has a significant positive impact on HR analytics adoption.	0.278	0.000	Supported
H4: Self-efficacy has a significant positive impact on HR analytics adoption.	0.302	0.000	Supported

Source: Developed by the researcher

Hypothesis 1: Social influence has a significant positive impact on HR analytics acceptance and adoption.

The results of the regression analysis suggest a statistically significant positive relationship between social influence and HR analytics adoption ($B = 0.203$, $p < 0.05$). That is, the more HR professionals perceive that they are supported and encouraged by colleagues, supervisors, and opinion leaders to use HR analytics, the higher their acceptance and usage of these tools are. Hence, Hypothesis 1 is supported.

Hypothesis 2: Resource availability has a significant positive impact on HR analytics acceptance and adoption.

The regression coefficient for resource availability, showing a positive insignificant relationship ($B = 0.121$, $p > 0.05$), suggests that the provision of primary inputs such as IT resources, software tools, knowledge, and personnel assistance considerably contributes to the acceptability and acceptance of HR analytics by HR professionals. Therefore, the second hypothesis has to be rejected.

Hypothesis 3: Data availability has a significant positive impact on HR analytics acceptance and adoption.

The empirical company data will establish a substantial positive association between the readiness of data and the HR analytical procedure being accepted and adopted ($B = 0.278$, $p < 0.05$). This indicates that HR departments where quality, accessible, and suitable data are available are more likely to adopt and accept HR analytics. Thus Hypothesis 3 is confirmed.

Hypothesis 4: Self-efficacy has a significant positive impact on HR analytics acceptance and adoption.

Self-efficacy pops as an important factor influencing HR analytics acceptance and constellation ($B = 0.302$, $p < 0.05$). It suggests that HR professionals who are more confident in their ability to interpret and utilize HR analytics show more significant acceptance and utilization of the tools. Thus, Hypothesis 4 is accepted.

The results of the multiple regression analysis revealed that social influence, resource availability, data availability, and self-efficacy are significant positive predictors of HR professionals' acceptance and adoption of HR analytics. These findings align with previous studies on technology adoption, emphasizing the importance of social norms, organizational support, data quality, and

self-confidence in shaping attitudes toward innovative tools.

Social Influence had a significant positive impact on the adoption of HR analytics. A strong correlation indicates that when HR managers perceive analytics as a priority of their colleagues and top management, they are more likely to adopt it. This reinforces the idea that organizational culture and social norms play a crucial role in technology adoption.

Although **Resource Availability** had a positive coefficient, it was not statistically significant. The correlation suggests that human resources alone cannot drive the adoption of analytics without the support of organizational structures and skills development. Simply investing in technology without aligning it with broader support structures is insufficient for high adoption levels.

Data Availability emerged as a significant predictor of HR analytics adoption. Having quality, relevant, and timely data is essential for the successful implementation of HR analytics. Apparel companies that ensure data integrity and invest in data management systems are more likely to see HR professionals using data insights for strategic decision-making.

Self-Efficacy was identified as the most influential predictor, with a strong positive correlation. HR professionals who are confident in their analytical abilities are more likely to adopt HR analytics in their daily work. Organizations should prioritize continuous learning programs to enhance the analytical capabilities of HR staff.

In conclusion, successful HR analytics adoption in Sri Lankan apparel companies depends on social support, data accessibility, and self-efficacy, rather than resource availability alone. For effective implementation, companies must foster a supportive culture, ensure data credibility, and invest in training HR staff in analytical skills to strategically utilize HR analytics for improved operational efficiency.

Findings and Discussions

This study investigated the influence of four main factors which are social influence, resource availability, data availability, and self-efficacy on the adoption of HR analytics tools and practices.

The demographic profile of respondents showed different ages, educational backgrounds, and years of experience in HR roles, highlighting the diversity of the respondents in Sri Lanka's apparel industry HR community. The HR managers were surveyed and they were represented by 196 members. The majority of them were characterized as working in human resource management (21.4%). On the other hand, benefits and compensation (18.9%) and performance management (18.4%) were also other significant functions. The majority of the respondents were aged 35 to 45 years (43%), and half of them (50%) held a bachelor's degree. This mix of backgrounds demonstrates the range of HR job titles, education levels age sectors, and ensures that the findings are broadly based on the HR personnel who are working in the Western Province apparel industry in Sri Lanka.

The constructs' reliability was confirmed through the use of Cronbach's Alpha, and all values were over the acceptable threshold of 0.7. Social influence (α = 0.870), resource availability (α = 0.874), data availability (α = 0.876), and self-efficacy (α = 0.930) demonstrated strong internal consistency. The total Cronbach's Alpha for the survey was 0.967, representing excellent reliability here.

The KMO index of sampling adequacy was recorded as 0.931, and Bartlett's Test of Sphericity was found to be significant ($p < .001$), thus confirming the validity of the measurement scales.

The descriptive analysis conducted revealed the mean scores for the significant constructs to be in the brackets of 3.8482 and 4.0316, which is indicative of a favorable inclination towards the variables that determine HR analytics adoption. Social influence was exhibited with a mean score of 3.8482, the mean of resource availability was 4.0000, The data availability was assessed at 3.9561 and the self-efficacy mean score was 3.9621. The dependent variable of HR analytics adoption exhibited a mean score of 4.0316 which reflects that HR managers were inclined towards adopting HR analytics.

The correlation analysis discovered that social influence, resource availability, data availability, self-efficacy, and acceptance and adoption of HR analytics had the strongest positive relationships. Social influence recorded the largest coefficient with the adoption of HR analytics ($r = .743$, $p < .001$), which was then followed by data availability ($r = .743$, $p < .001$) and resource availability ($r = .708$, $p < .001$). Self- efficacy additionally showed a high positive relationship ($r = .794$, $p < .001$), meaning HR professionals are more willing to use HR analytics if they are sure of their capabilities.

As a fact, the regression analysis had shown a very good result with such a high value of the R^2 coefficient of 70.9%. It's really impressed by the significance of the independent variables, in forecasting the HR analytics adoption. Social influence ($\beta = 0.203$, $p = .004$), self-efficacy ($\beta = 0.302$, $p = .001$) and data availability ($\beta = 0.278$, $p = .001$) had the strongest influence, while resource availability ($\beta = 0.121$, $p = .073$) had a relatively weaker but still remarkable effect. The regression model was also very significant ($F = 116.587$, $p < .001$), which is a clear confirmation of the relationships being strong.

The hypothesis testing results showed that only three independent variables (social influence, data availability, and self-efficacy) had significant positive effects on the adoption of HR analytics. To be more specific self-efficacy was the largest factor in compliance with the expectations of the hypothesis ($r = .794$, $p < .001$) and social influence was the second one to be so in the same way ($r = .743$, $p < .001$). Besides, one variable, resource availability shows a positive insignificant impact.

Implications of the study

The findings of this study offer significant practical and theoretical implications for HR analytics adoption in Sri Lanka's apparel industry. From a practical perspective, organizations must foster a data-driven culture by encouraging senior management to advocate for HR analytics and integrate it into decision-making processes. Investing in technological resources alone is insufficient; companies should allocate funds for training programs to enhance HR professionals' analytical competencies, ensuring they can effectively utilize HR analytics tools. Additionally, robust data management practices are essential, requiring firms to implement integrated HR information systems, data governance mechanisms, and quality control measures to improve data accessibility and reliability. Theoretical implications extend to the Unified Theory of Acceptance and Use of Technology (UTAUT) and Innovation Diffusion Theory (IDT)**,** reinforcing that social influence, organizational support**,** and facilitating conditions significantly impact adoption. The study also highlights relative advantage and compatibility as key factors driving HR analytics adoption, while complexity remains a barrier,

underscoring the need for targeted training programs. Furthermore, the integration of individual, organizational, and technological factors provide a holistic framework for understanding HR analytics adoption, particularly in developing economies where cultural influences, hierarchical decision-making, and social norms play a crucial role. This research extends existing models by incorporating context-specific determinants, paving the way for future studies to explore additional cultural, technological, and organizational factors influencing HR analytics adoption across diverse industries and regions.

Conclusion

In the process, the research pointed towards self-efficacy, data availability, and social influence which were confirmed to be the primary reasons for the adoption of HR analytics, among which self-efficacy was the dominant one (Bandura, 1977). The statistics showed that talented HR professionals were highly likely to use analytics in their work if they were confident in their abilities. It was found that while the organization's provision of resources is less critical for the cause, the human resource manager is making a mistake in leaving them out (Rasmussen & Ulrich, 2015). Although the availability of resources had a weaker impact, it still played a role in the adoption process. The results draw attention to the need for companies to create a friendly atmosphere that promotes the use of HR analytics by providing data access and building up the self-efficacy of HR professionals. The limitation of this study is outcomes are specific to HR Managers in the apparel industry and the Western province of Sri Lanka, thus, it may not be applicable to other sectors or areas. Moreover, other factors like organizational culture and leadership style were neglected. Future research needs to delve into the entire nation and should include additional factors. Future researchers can expand research beyond the apparel industry and Sri Lanka and can use Mixing qualitative and quantitative methods, The use of HR analytics is a technique that is capable of studying, analyzing, and comparing sectors, areas, and states. The implications of the research are not just limited to the apparel industry, but it can be helpful for all users of HR, who are seeking ways to improve their data-oriented business decision practices. Again, research can look at how factors affecting HR analytics adoption are changing over time or across areas.

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