



ORIGINAL

## The Impact of Data-Driven Decision-Making, Real-Time Analytics, and Ethical Data Practices on HR Performance and Employee Satisfaction

### El impacto de la toma de decisiones basada en datos, el análisis en tiempo real y las prácticas éticas de datos en el desempeño de RRHH y la satisfacción de los empleados

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#### ABSTRACT

**Introduction:** the importance of this study is to investigate decision-making by making decisions about data and real-time analytics and practicing ethical data on human resource performance and employee satisfaction.

**Objective:** the study was conducted at Zain Telecommunications Company Jordan through designing a questionnaire for segmentation research in the telecommunications and exhibitions company and 220 suitable samples were removed to analyze the structural equation modeling program method SEM.

**Method:** the diversity of independent studies was indicated through the contracts indicating it, so multiple choices were used as evidence, workforce turnover forecasts, performance measures were available to indicate the correct decision-making to the data. Its employees were used in real time, tracking the productivity of dynamic workforce workers, and instant questionnaire mechanisms to indicate real-time analytics.

**Result:** transparency in its data use policies, implementation of data privacy standards, and algorithmic fairness were used in innovative processes to indicate ethical data practices. Through the questionnaire that was distributed, these parties' studies were conducted on improving the performance of human resources and employee satisfaction.

**Conclusion:** his studies have concluded by integrating his three main areas of accurate decision making of his research, real-time analysis and practice of creative data and performance significantly improves the HR outcomes he chooses from employee satisfaction by choosing his specialty on data keeping pace with organizational goals by choosing his evidence.

**Keywords:** Data Driven Decision-Making; Real-Time Analytics; Ethical Data Practices; HR Performance; Employee Satisfaction.

#### RESUMEN

**Introducción:** la importancia de este estudio radica en investigar la toma de decisiones mediante el uso de

datos, análisis en tiempo real y la práctica ética de los datos en el rendimiento de los recursos humanos y la satisfacción de los empleados.

**Objetivo:** el estudio se llevó a cabo en la empresa Zain Telecommunications en Jordania, mediante el diseño de un cuestionario para una investigación de segmentación en la empresa de telecomunicaciones y exposiciones, y se extrajeron 220 muestras adecuadas para analizar mediante el método del programa de modelado de ecuaciones estructurales (SEM).

**Método:** la diversidad de estudios independientes se indicó a través de los contratos que lo demostraban, por lo que se utilizaron múltiples opciones como evidencia; se incluyeron pronósticos de rotación de personal y medidas de rendimiento para señalar una correcta toma de decisiones basada en los datos. Se utilizaron empleados en tiempo real, realizando un seguimiento de la productividad de una fuerza laboral dinámica y mecanismos de cuestionarios instantáneos para reflejar el análisis en tiempo real.

**Resultado:** la transparencia en las políticas de uso de datos, la implementación de estándares de privacidad de datos y la equidad algorítmica se utilizaron en procesos innovadores para indicar prácticas éticas en el uso de datos. A través del cuestionario distribuido, se realizaron estudios sobre la mejora del desempeño de los recursos humanos y la satisfacción de los empleados.

**Conclusión:** sus estudios concluyeron integrando tres áreas principales: toma de decisiones precisa, análisis en tiempo real y práctica creativa de datos. Esto mejora significativamente los resultados de recursos humanos, eligiendo la satisfacción de los empleados mediante la especialización en datos que mantienen el ritmo con los objetivos organizacionales a partir de la evidencia seleccionada.

**Palabras clave:** Toma de Decisiones Basada en Datos; Análisis en Tiempo Real; Prácticas Éticas de Datos; Desempeño De Recursos Humanos; Satisfacción De Los Empleados.

## INTRODUCTION

Human resource management practices are effective practices in the work environment that focus on supporting organizational performance and enhancing development within organizations.<sup>(1)</sup> The human resource function, which focuses on administrative tasks and coordinating the workforce, has undergone a major development with the emergence of support tools such as advanced data tools that have become focused on the methods applied by employees.<sup>(2)</sup> Many organizations are dancing to transform their decision-making process into a process based on the integrity and analysis of real-time data and the practice of ethical data as strategic tools that work to raise the efficiency of human resources and raise the level of employee satisfaction.

<sup>(3)</sup> The effective implementation of data-based decision-making, real-time analytics and the practice of ethical data have gained utmost importance for organizations trying to maintain competitive capabilities and acquire new competitive advantages. The effective implementation of data-based decision-making has confirmed that the collection, analysis and application of data scientifically helps in guiding decisions related to recruitment, retention and training.<sup>(4)</sup> HR departments have started focusing on using and leveraging data by identifying the issues and skills that employees should focus on and designing programs related to predicting workforce trends.

<sup>(5)</sup> This has led to the use of real-time analytics as a continuous monitoring tool used to interpret workforce data, which enables HR leaders to respond quickly to issues such as delayed product deliveries to customers due to employee turnover rates and low employee engagement. Organizations have also focused on implementing ethical data practices, dealing with employee information confidentially and transparently, which ensures compliance with the organization's laws, applying a fair approach, reducing bias in making appropriate decisions, and ensuring fairness in using data. Ethical data practices have become a must-have practice at the present time due to the increased scrutiny of attempts to hack and steal personal data.<sup>(6)</sup> Therefore, implementing ethical data practices not only protects employee information, but also maintains, increases, and develops the credibility of the organization and its legal counterparts. Organizations across sectors are looking to achieve new sustainable competitive advantages, and the integration of effective implementation of data-driven decision-making and real-time analytics with ethical data practices and their application as tools in human resource management and attempts to integrate them has become of utmost importance. The number of increasingly recognized is that there is a lack of research that focuses on the impact of these variables in a single way on human resource performance and employee satisfaction across sectors.<sup>(7)</sup> For example, although many studies have focused on studying and exploring data-driven approaches in a broad organizational context, a smaller number of these studies have focused on studying the precise impact of ethical data handling on employee trust and how it impacts daily human resource operations. In the telecommunications sector in Jordan, human resource departments face significant pressures and challenges related to operational performance, adopting new technologies, and enhancing workforce engagement.<sup>(8)</sup>

Due to these challenges, the study focused on trying to reduce the current gap by studying the evaluation

of the joint impact of data-based decision-making, real-time analytics, and ethical data practices on human resources performance and employee land. This is done by focusing on the variables and providing a detailed study on how organizations can improve human resources operations, promote a culture of ethical dealing with data, and quick.

### Objectives of the Study

- The aim of this study is to enhance the understanding of data-driven decision-making, real-time analytics, and ethical data practices, and to explore their potential in optimizing human resource performance and increasing employee satisfaction at Zain Jordan Telecommunication Company.
- The main objective of this research is to provide a comprehensive framework for integrating data-driven decision-making, real-time analytics, and ethical data practices into HR processes within Zain. This approach aims to improve decision-making capabilities by enabling accurate data use, timely insights, and fair, transparent handling of employee information. The study seeks to identify the impact of these elements on operational efficiency, strategic HR planning, and overall employee engagement and satisfaction.

### Literature review

#### *Data-Driven Decision Making*

Data-driven decision-making is defined as a systematic, organized approach that relies on collecting, analyzing, and interpreting data to build and make strategic decisions and achieve organizational goals.<sup>(9)</sup> Due to the increasing complexity of the work environment and the huge and increasing amounts of data, most types of companies, sectors, institutions, and organizations are trying to adopt organized methodologies to use data effectively.<sup>(10)</sup> Relying on data has become one of the main matters and pillars on which the decision-making process depends due to its importance in identifying problems and evidence related to improving the organization as a whole.<sup>(11)</sup> This ensures that each stage of the decision-making process is dealt with accurately and accurately, from identifying problems to evaluating results.<sup>(12)</sup> Data-driven strategies not only improve the decision-making process, but also help improve the innovation process, which enables organizations to adapt and thrive in dynamic, changing environments.<sup>(13)</sup> The use of data in decision-making is considered one of the basic pillars that organizations rely on due to the ability to benefit from analysis and interpret complex data sets that play an effective role in shaping strategic trends and decisions.<sup>(14)</sup> What is in this field of different competencies such as predictive analytics, data visualization, and performance measurement analysis that contribute to making distinctive, creative, and new decisions starting from the data collection stage, which starts from direct communication with customers through the analysis and implementation stages that enable institutions to ensure all aspects of their performance and work up to building long-term strategies and to be consistent with strategic decisions based on the available data.<sup>(15)</sup> Mastering these analytical fields and being able to create an executable link with the goals of the institution that leads to the effective allocation of resources, reducing risks, and meeting the expectations of stakeholders are among the most important pillars that organizations are currently focusing on.<sup>(16)</sup> Based on previous studies this research hypothesizes the following H1, and H2:

H1: Data-Driven Decision Making has positive impact on HR Performance.

H2: Data-Driven Decision Making has positive impact on Employee Satisfaction.

#### *Real-Time Analytics*

Real-time data analysis is represented within organizations as the way of collecting, analyzing, and using data to make urgent decisions and respond to sudden situations or immediate problems. The business environment today is a changing and fast-paced environment where the elements of speed and accuracy are of utmost importance, especially in some sectors such as finance, healthcare, and logistics, which require speed in decision-making through speed in collecting data to drive operations effectively. Relying on real-time data analysis has become an absolute necessity to face dynamic challenges during or before they occur.<sup>(17)</sup> The importance depends on organizations applying the principles of actual data analysis, which helps organizations identify trends and risks and quickly intervene to try to solve those.<sup>(18)</sup> Each stage of the decision depends on obtaining data coming from customers and trying to organize, arrange, and process it to become an essential element in helping organizations respond to changes, developments, and immediate problems. Data analysis works to help organizations enhance proactive decision-making and enhance the competitive capabilities of organizations.<sup>(19)</sup>

Real-time data analytics relies on the integration of advanced technologies such as machine learning algorithms, data streaming platforms, and visualization tools. These technologies play a pivotal role in processing huge amounts of data in the fastest time, which enables organizations to have a quick response to the problems they face at the same time. The most beneficial aspects of real-time data analytics

include several areas such as helping organizations monitor events, perform actual forecasting, prepare real-time reports, and enable quick and immediate responses.<sup>(20)</sup> These capabilities give organizations the ability to transform raw data through the operational, administrative, and strategic levels of the organization to build and implement long-term strategies. Finally, the use of real-time data analysis gives decision-makers the ability to visualize and link actionable insights to operational goals, efficient use of resources, risk management, and enhancing customer and owner satisfaction.<sup>(21)</sup>

Based on previous studies this research hypothesizes the following H3, and H4:

H3: Real-Time Analytics has positive impact on HR Performance.

H4: Real-Time Analytics has positive impact on Employee Satisfaction.

### *Ethical Data Practices*

Ethical data practices within organizations are the principles and strategies for collecting, processing, and using data in a manner that respects customer privacy, fairness, and transparency, with the aim of maintaining customer satisfaction and trust, and meeting regulatory requirements. The importance of implementing ethical data practices within organizations is that organizations have the advantages to face the potential risks of misuse of data, including lack of commitment to privacy and bias in results.<sup>(22)</sup>

Implementing ethical data practices is an urgent necessity for organizations to integrate the principles that organizations believe in into the way they perform their operations and gives organizations the ability to navigate between problems and challenges and deal with them in a fair, transparent, and honest manner.<sup>(23)</sup> It ensures that every step of dealing with data, from collection to use, is carried out in an ideal manner and helps to enhance assistance and promote a culture of trust between management and employees and between customers and organizations, which is essential and fundamental to achieving success in the long term in light of working within a rapidly evolving and changing environment.<sup>(24)</sup> Ethical data practices are based on fundamental pillars and components such as transparency, inclusiveness, accountability, justice, integrity, and fairness, which enable organizations to use data fairly, reduce bias, and apply a work method based on protecting and applying ethical standards and giving the highest priority.<sup>(25)</sup> Applying these practices, organizations are able to build a strong relationship with the external and internal environment of organizations, and reduce risks.<sup>(26)</sup>

Based on previous studies this research hypothesizes the following H5, and H6:

H5: Ethical Data Practices has positive impact on HR Performance.

H6: Ethical Data Practices has positive impact on Employee Satisfaction.

### *HR Performance and Employee Satisfaction*

Human resource performance is one of the most important elements that organizations focus on and does not refer to the systematic approach by which the human resource department performs functions and increases employee contributions to the organization's goals and drives overall success. Industries have come to rely on strong human resource strategies as a primary method to improve employee productivity and satisfaction.<sup>(27)</sup> The phenomenon of focusing on raising the overall performance of human resources in the need of organizations for highly talented employees to face the complexities of work and address the challenges of the moment in most sectors helps human resources in giving organizations the ability to implement comprehensive strategies based on talents and intellectual and creative abilities and address problems and develop individual skills in a systematic and organized manner.<sup>(28)</sup> Raising human resource performance is considered an essential and primary element for organizations by focusing on improving employee performance, retaining operational competencies, and enhancing, building, and implementing a culture of innovation and adaptability that gives organizations the ability to compete in a complex and changing work environment.<sup>(29)</sup> Human resource performance depends on integrating innovative practices with work methods to achieve excellence within organizations, in final products, and in communication and interaction between employees.<sup>(30)</sup> Human resource performance focuses on developing employee performance by ensuring that business is aligned with strategic objectives through mastering work methods and possessing creative and innovative skills to achieve the goal of creating a productive and engaged workforce capable of delivering work quickly, reducing operational turnover, and providing employees with continuous motivation to make the organization successful.<sup>(31)</sup>

Increasing employee satisfaction is one of the most important pillars that organizations seek to perform in order to give them loyalty in performing work and focus on the success of the organization on an ongoing basis. Employee satisfaction is one of the most important pillars that organizations must possess to drive productivity and retain outstanding talents.<sup>(32)</sup> Raising employee satisfaction enhances the creation of trust, cooperation, and creativity among employees, as organizations can continuously develop in all circumstances and highly competitive situations.<sup>(33)</sup> Strategies are among the most important components of employee satisfaction, which include providing competitive compensation, enhancing work-life balance, and offering continuous development programs for employees, which are considered

among the most important variables indicating employee satisfaction.<sup>(34)</sup> Among the variables that also indicate employee satisfaction is participation in opinion polls and making improvement suggestions that reflect the employee's experience and the level of satisfaction they have reached within their work in the organization. Through such feedback, organizations can gain a general understanding of the level of employee satisfaction and carry out improvement initiatives to achieve the goal of having a group of innovative, motivated, and dedicated employees who are able to face work challenges and perform effectively under all circumstances.<sup>(35)</sup>

Based on previous studies this research hypothesizes the following H7:

H7: HR Performance has positive impact on Employee Satisfaction.

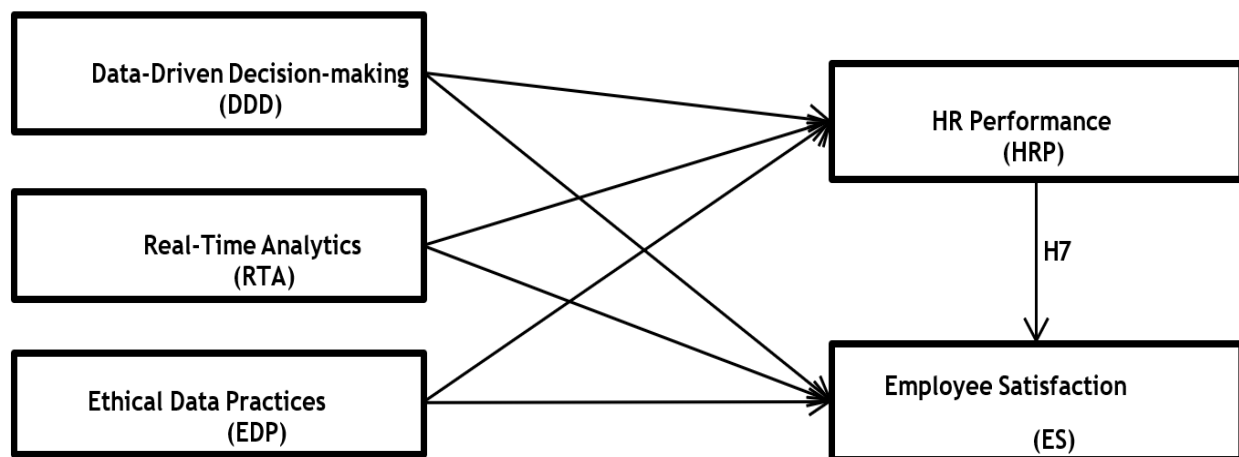


Figure 1. Research Model

## METHOD

The most important of these studies is the creation of a creation prepared on data and real-time analytics, the practice of creative data on improving human resources performance and increasing employee satisfaction. These studies have been identified and need to be researched, as all data were collected through a successful questionnaire design that relies on the diversity of independent studies and their impact on the construction. For this reason, the questionnaire was distributed and its models were taken, which include the presence of an unbiased representative sample consisting of experts in human resources and others in organizational matters of organizations. The user was helped in searching in the final images that include the relationship between relying on all data collected and analyzed using statistical analysis tools and techniques such as descriptive statistics, analysis coefficients, and correlation analysis. These studies have reached an understanding of how the impact and decision-making related to it on data and real-time analytics and ethical data practices on human resources performance and employee satisfaction. Through the use of statistical analysis, these studies are highly reliable and applicable, which can provide directions for improving and enhancing the performance of the human resources department and the satisfaction of its employees.

## Research Design

The research questionnaire was designed and distributed digitally based on the study objectives and may consist of five main sections with a total of 25 questions. These sections focused on the independent and dependent research variables starting from the independent variables which are data-based decision making and real-time analytics and ethical data practice in addition to that the focus was on the dependent variable which is human resource performance and employee satisfaction. The study used SMART PLS 3.3.9 to analyze the collected data to test the theoretical framework and main research hypotheses. A Likert scale was used which consists of five answer options: strongly agree, agree, neutral, disagree, and strongly disagree which allows participants and respondents to the research questionnaire and express their level of agreement on the questionnaire questions clearly. This organized approach facilitated the collection of detailed data to discover the relationships and the effect of independent variables on dependent variables. The data collected through the research provided a comprehensive view of how these factors shape and impact organizations. The information provided in this research is valuable to organizations that aim and focus on developing the performance of their human resources department and employees.



## Data Analysis

The SMARTPLS-SEM 3.3 system was used to transform the collected data into applicable and testable information. Data entry for accurate review and handling of data errors was performed. Each response was evaluated for accuracy, precision and reliability of the study. Evaluation within the data analysis was a summary and summary of the results of the analysis of the typical measurement model. Two main methods and models were used for the first analysis to analyze, prove and discuss the hypotheses of the studies related to investment in it. It was always benefited from exploring the data in the SPSS system and its accuracy before reaching the relationship analysis mainly. Mahalanbis analysis was used to detect and process the significant outliers in the data set. A Chi-square ( $\chi^2$ ) test was used for a significance level of less than 0,001 and always reached the strength of the analysis and confirmed it. The study entered the  $\chi^2$  value equal to 14,36 and after the dimensions the values that exceeded this value. Naturally, 220 valid questionnaires were used for the final analysis. The data were verified to be normal, taking into account the values of the side within the commitment range of  $\pm 2$ , which means that there are no deviations in the distribution. To evaluate the research model from the fine-grained elements to form the T-models to the measurement model, the process began with a test of the preparation of the four-factor confirmation (CTE), which used the Bonferroni equation to adjust the relationships by using the ( $\tau$ ) value at the time this was the final to confirm the certainty of the model selection. A four-factor analysis was also done as a measure in addition to providing the internal consistency of the model and structure on the framework that was created. Its reliable analysis and validity are used to support the results from the statistical fluidity and theoretical vision, as this is not observed, i.e. the negative result that gives the studies strong results.

## RESULTS

This study used a 25-question questionnaire that examined five main components of the study, namely accuracy and reliability. The measurements were processed before any theoretical analysis of the study was conducted. The consistency of the items within the study model was assessed by observing their external loadings. Higher external loadings indicate strong consistency between the elements of the study model, thus enhancing comparability and reliability (Hair et al., 2021). This approach ensures the robustness of the measurement process, which lays a solid foundation for subsequent theoretical analysis and discussion of the results.

**Table 1.** Reliability and Validity Test

Code	Factors Loading	VIF	Cronbach's Alpha	CR	AVE
<i>Data-Driven Decision-Making (DDD)</i>			0,70	0,72	0,51
Data Utilization	0,67				
Evidence-Based Strategies	0,70				
Integration with Business Processes	0,65				
Decision Accuracy	0,61				
Technology Adoption	0,58				
<i>Real-Time Analytics (RTA)</i>			0,74	0,73	0,53
Speed of Insights	0,68				
Data Visualization	0,71				
Operational Impact	0,66				
System Responsiveness	0,74				
Scalability	0,58				
<i>Ethical Data Practices (EDP)</i>			0,71	0,74	0,52
Data Privacy Compliance	0,71				
Transparency	0,68				
Fairness	0,61				
Accountability	0,56				
Stakeholder Trust	0,59				
<i>HR Performance (HRP)</i>			0,77	0,70	0,51
Recruitment Efficiency	0,63				

Employee Retention	0,68			
Productivity Metrics	0,64			
Training and Development	0,66			
Compliance and Risk Management	0,77			
Employee Satisfaction (ES)		0,73	0,71	0,49
Workplace Environment	0,65			
Compensation and Benefits	0,70			
Work-Life Balance	0,67			
Career Growth Opportunities	0,73			
Leadership Support	0,62			

The average variance extracted is greater than 0,05 times of this number on the basic frame the idea is responsible for more than half of the average variability in the signs of updates related to the concept what is its age useful in assessing the convergent validity of the idea. The reliability of convergence is assessed by looking at the probability of AVE or average variance extracted this is a form of construct validity. Statistical weeks are used to investigate the coincidence between the values of the items being evaluated by different variables. It is important to consider any points or differences that may occur between the objects or measurements reviewed during the evaluation of a particular method. Convergent validity can be assessed using a variety of statistical methods and ideas. Examining the relationship between variables is a typical approach and maintaining this high level of precision is achieved in the interview and through factor analysis. There are two methodologies mentioned earlier and what is composite reliability CR and extracting average variance AVE are the most important things to confirm this particular form of authenticity.

### Research hypotheses Test

The second step after ensuring the reliability and validity of the research is to test the study hypotheses and consider how the relationships related to the independent variable affect the dependent variable. The following table represents the direct effects and relationships of all fully adopted research hypotheses.

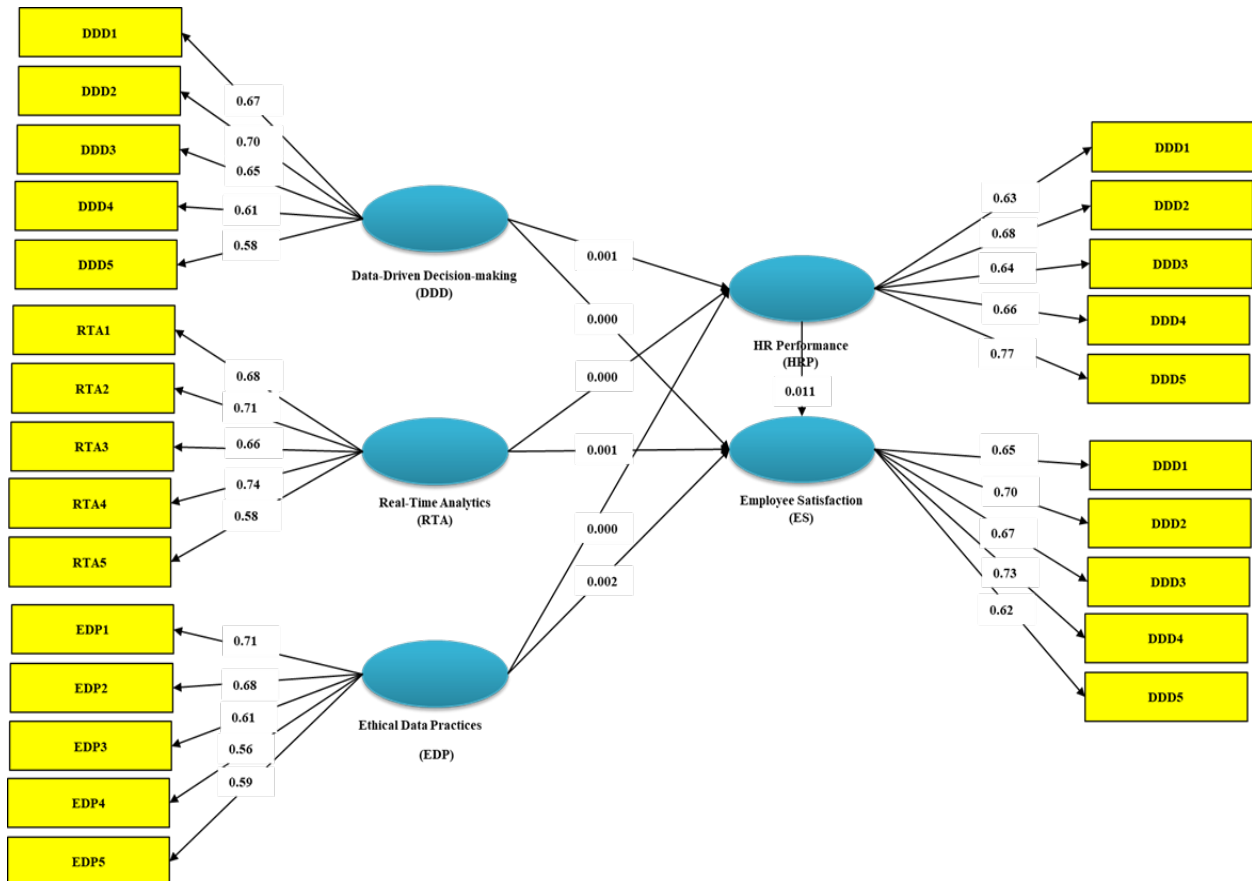


Figure 2. PLS-SEM Analysis results

Table 2. Path Coefficient Test Results

	Research Hypotheses Test	P Value	Results
H1	Data-Driven Decision Making (DDDM) → HR Performance (HRP)	0,001	Supported
H2	Data-Driven Decision Making (DDDM) → Employee Satisfaction (ES)	0,000	Supported
H3	Real-time Analytics (RTA) → HR Performance (HRP)	0,000	Supported
H4	Real-time Analytics (RTA) → Employee Satisfaction (ES)	0,001	Supported
H5	Ethical Data Practices (EDP) → HR Performance (HRP)	0,000	Supported
H6	Ethical Data Practices (EDP) → Employee Satisfaction (ES)	0,002	Supported
H7	Employee Satisfaction (ES) → HR Performance (HRP)	0,011	Supported

The figure shows the PLS-SEM Analysis results, the data driven decision making construct was represented by five indicators with factor loadings ranging from 0,58 to 0,70. This value indicates a moderate level of reliability where 0,70 is related to evidence-based strategies which are the strongest contributors and play a significant but not comprehensive role in influencing HR performance and employee satisfaction. The analysis also indicates and shows that real-time business analytics now has factor loadings ranging from 0,58 to 0,74 and the highest factor performance index was shown for system responsiveness which confirms its strong contribution, reliability and ability to improve HR performance and increase employee satisfaction. The results of the structural equation analysis showed that ethical data practices had fixed factor loadings ranging from 0,56 to 0,71 and the highest factor loadings indicated compliance with data privacy which played an important role in improving HR performance and increasing employee satisfaction. The results also showed that improving human resource performance and employee satisfaction is statistically significant as shown by the probability values for example (0,001, 0,000, 0,002, and 0,011). These results indicate that the structure of data-driven decision making, real-time business analytics, and ethical data practices collectively contribute to improving human resource performance and employee engagement. The results show that second independent variable the real-time data analytics have a more significant impact based on its strong loading factors. Each of the independent variables plays a prominent and fully related role in improving the dependent variables, and the focus on them is highlighted as influential factors in achieving organizational excellence.

## DISCUSSION

The study was applied in Zain Telecom Jordan, which is important for it to understand the impact of data-based decision-making, real-time analysis, and ethical data practices on human resource performance and employee response to adapt and deal with the rapidly evolving commercial and competitive market. Many institutions and organizations are trying to keep pace with technological progress and rapid and tremendous development. Therefore, understanding how these variables affect improving human resource performance and employee satisfaction has become one of the basic components and components for sustainable growth and maintaining competitive advantages. The main objective of the study is to evaluate the impact of data-based decision-making and analysis of actual data and the application of ethical data usage approaches and practices to improve human resource efficiency and satisfaction within Zain. By taking advantage of data-based decision-making, organizations can implement, choose, and make creative and distinctive decisions that are consistent with the organization's strategic goals. Real-time data analysis enhances decision-making through suggesting new ideas and plans that can be implemented by employees. Additionally, applying ethical data practices helps in activating concepts such as transparency, trust and equality, which are essential for employee engagement and building a fair work environment that leads organizations to lasting success. The study measured the impact of these three variables on raising human resources performance and increasing employee satisfaction. The results showed that applying the three practices helps improve and raise human resources performance, helps motivate employees and leads organizations to the goal of matching organizational strategies with employee needs. The results included that the three variables helped improve the systems and laws applied within the human resources department and increase the satisfaction of the organization's management and achieve long-term strategic goals because these variables link and help employees perform their work in a new and distinctive creative way. These three variables help create a supportive and helpful work environment for employees to perform their work in a creative and distinguished manner. The human resources department in organizations can use key performance indicators such as employee retention rates, job satisfaction rates, and employee productivity as methods that can give the organization indicators of the impact of data-based decision-making and analysis of actual and current business data and the application of creative strategies in dealing with data as methods to improve human resources practices and businesses, increase employee satisfaction, achieve organizational goals, and possess competitive advantages. In addition, the results and recommendations of this study will be sent to Zain and its decision and policy makers, which can enable the company to understand the



importance of integrating and changing the decision-making method to become data-based and real-time data analysis and practicing ethical data as a means that enables the company to enhance innovation, continuous improvement, employee confidence, possess competitive advantages, and achieve success in the Jordanian telecommunications sector.

### Research Limitations

The postgraduate studies focused on data-driven decision making, real-time data analysis and ethical data communications on human resource management and employee satisfaction within Zain Telecommunications Company in Jordan. However, the results may not be always applicable to other sectors and firms. Zain operates as a unique and distinctive organized communications environment and this can be determined by the possibility of the police highlighting the conclusions of the studies on winter or other companies and it is important to clarify that the results of the study organizational belief and process and innovation and the cultural environment of Zain Telecommunications Company Jordan. Therefore, the large differences between natural companies change the reflection of the large differences in the expectations of employees and respondents to the research questionnaire. The results are also affected by the time in which they were conducted in the studies and therefore with the emergence of a quick application of a creative person like the creative person who is accredited in data analysis in reality and ethical practices failure can fail its importance with the record of time and because rapid progress and changing workforce dynamics and shifts in organizational priorities highlight the need for continuous evaluation to survive the results of the studies are updated and developed first. How studies began that there are some multiple pluralities in questionnaires and the method began such as civilization social desire that we can rely on the documented and validity of the data that was collected and we advise these scientific studies and future practitioners to further in their battles these mechanisms until the accuracy and found their conclusions and results of their studies. These studies recommend focusing future research on the external environment such as market conditions which can also participate in human resource performance and employee satisfaction such as internal factors. Due to these reasons, the scientific study and practitioners concluded the necessity of basing with the results with an understanding of the scientific community in which the research was conducted and to reach the presence of the results, several researches must be done related to the external environment and leadership styles and in other organizations and other sectors to reach a comprehensive knowledge base that includes the impact of continents qualified on data analysis data any practical application of ethics to deal with data on organizations.

### CONCLUSIONS

The study studied the effect of data driven decision making, real-time data analysis, and ethical data practices on improving human resource performance and employee satisfaction. The study suggested 7 hypotheses. H1, 3, 5 hypotheses studied the impact of data-based decision-making, real-time data analysis, and ethical data practices on human resource management practices. H2, 4, 6 focused on the impact of data-based decision-making, real-time analysis, and ethical data practices on employee satisfaction. The seventh hypothesis focused on studying the impact of improving human resource management practices on employee satisfaction. The main objective of this study is to clarify the impact of applying data-based decision-making strategies, analyzing modern and real-time data, and applying ethical practices in dealing with data on modern human resources management. By examining this interaction, the study aims to understand how these strategies contribute to developing and raising human resources performance and employee satisfaction in the long term. It also aims to provide conclusions and recommendations to adapt to the changing landscape in the field and sector of telecommunications. The results of the study may be of high value to Zain, which is constantly seeking to acquire competitive advantages, motivate employees, and raise performance. Many recent studies have focused and supported this research, such as <sup>(36,37,38)</sup>. This study is an addition to several similar studies conducted in government sectors that may provide a comprehensive understanding of the subject in the future. This research has delved into studying the relationship between the use of data, ethical practices, and human resources effectiveness with the aim of providing a strategic vision for continuous improvement within Zain. Research Results could be helpful for the company adapt to the continuous changes, the huge technological development and the high competition in a turbulent and unstable competitive market. Finally, the following studies<sup>(39,40)</sup> have shown similar results and confirmed the importance of the three practices in developing and raising the performance of human resources and employee satisfaction. This study has relied on previous research in the same field, which focused on understanding the importance of improving advanced human resources practices and enhancing employee satisfaction and the importance of the results of these studies in continuing to work in a complex communications sector while maintaining employee satisfaction and high performance that always leads to providing high-quality and efficient products and services to customers.

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