INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 14, Issue 1, (2024) E-ISSN: 2222-6990

Effect of Business Intelligence, Digital Transformation and Digital Leadership on Employee Satisfaction within the Commercial Banking Sector in Jordan

Khaled Khalaf Alafi

Department of Management, Faculty of Finance and Business, The World Islamic Sciences and Education University (WISE), Amman, Jordan

Email: Khaled.allafe@wise.edu.jo

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v14-i1/20481 DOI:10.6007/IJARBSS/v14-i1/20481

Published Date: 26 January 2024

Abstract

This study examines the mediating role of employee engagement and perceived organizational support on the effect of business intelligence, digital transformation and digital leadership on employee satisfaction within the Commercial Banking Sector in Jordan. The questionnaires were distributed to 276 employees of the Commercial Banking Sector in Jordan. This study employed partial least square structural equation model (PLS-SEM) and analysed the research hypotheses. The results found that business intelligence has significant and positive effect on employee satisfaction. While digital transformation and digital leadership have insignificant effect on employee satisfaction. However, the results showed that business intelligence, digital transformation and digital leadership have significant and positive effect on employee engagement and perceived organizational support. Moreover, the results indicated that employee engagement and perceived organizational support have partial mediating effect on the effect of business intelligence, digital transformation and digital leadership on employee satisfaction. notably, previous research found no relationship between the factors of interest and either employee job satisfaction or the value that businesses provide to their customers. Leaders in the digital space advocate for new ideas, teamwork, and easy access to data. By implementing the right digital technology, digital leadership can boost workplace innovation, efficiency, and productivity. By easing the process of change management, advocating for digital transformation, and making rational judgements, digital leadership helps businesses succeed. Employee performance, digital skill development, and company goal attainment are all positively impacted by digital leadership, according to the research. Leadership in the digital age is a shared and not just the leader's role due to the rapid pace of technological change.

Keywords: Business Intelligence, Commercial Banking Sector, Digital Leadership, Digital Transformation, Employee Engagement, Employee Satisfaction, Perceived Organizational Support, PLS-SEM

Introduction

In this rapidly evolving digital era, digital transformation has grown into an integral part of the corporate landscape. Properly adopting and utilising digital technology is essential for organisations to remain relevant and successful in the face of intensifying global competition. Companies need leaders who can steer and capitalise on the opportunities presented by digital transformation if they want to see any results. When it comes to managing change, influencing employee performance, and guaranteeing overall corporate success, digital leadership is crucial (Imamov & Semenikhina, 2021). A crucial quality of digital leadership is an openness to change and new ideas. Digital industry heavy hitters need to keep up with tech news and figure out how to use it to their advantage. They need to be quick to see the possibilities presented by digital technology and open to changing their business strategies to stay ahead of the competition. In today's technology-driven world, the most effective leaders are those who can inspire their teams to go outside the box and try new things. Because being an expert in one's field of technology is a key to staying competitive during the industrial revolution 4.0 (Pramanik et al., 2019), in order to remain competitive, businesses must continuously innovate by incorporating new technologies into their operations. The way a company makes decisions is indicative of its character and culture (Bozkus, 2023). For organisations in the modern industrial revolution, the decision-making process is one of the most important factors in determining the organization's health. The phrase "decision making" refers to the steps involved in picking one action to do in the face of multiple competing demands and options (Raed et al., 2023). The decision-making process is thus pivotal to many organisational tasks in a company with a strong, professional culture. Leadership in the digital age raises a number of questions, one of which is whether or not members and leaders (human resource management) are prepared to investigate all avenues for optimising company operations through the use of digital technology. The unsteady shift from the analogue to the digital paradigm is at the root of this preparedness problem (Abdulquadri et al., 2021). This is due to the fact that people's ability to acquire IT is closely tied to their disposable income, as the distribution of IT is still influenced by the industrial economic system.. Many metrics can be used by any organisation to measure its value, such as the percentage of satisfied customers, the rate of new customer acquisition, and the number of recurring transactions. In today's dynamic and competitive business world, people management has grown exponentially and is now critical to the success of any organisation. The arrival of IT in the corporate sector has opened many doors for employees. At the same time, it has increased the complexity of the business world. Information technology and its widespread use at various levels within the company have resulted in numerous digital changes. This has helped management achieve digital transformation. At every step of digital transformation collaboration, ecosystems, skills, culture, enablement, etc. the human element is a critical component to achieving the goal. Human values must not be sacrificed because, despite widespread digital adoption, not all organisational needs can be met digitally (Hanelt et al., 2021). To empower customers and provide them with better services, it is crucial to combine human resources with technology. An increasingly digitally transformed organisation will require a more engaged workforce to achieve its long-term goals as technology advances. Without internal and external constraints, the digital transformation

journey requires a step-by-step strategy with a thorough roadmap that involves all stakeholders. The use of digital technologies to improve the efficiency and effectiveness of processes is the essence of digital transformation. The goal of digital transformation is not to recreate an existing service in digital form but to improve it and extend its reach through the strategic use of technology. Numerous studies have shown that the business world is changing due to the changes brought about by the adaptation of information and digital technologies (Talal Nayef Al Haddid, 2021). The market activities of companies have fundamentally changed due to the introduction of new technologies such as social media, mobile apps, the Internet of Things, cloud computing, big data analytics, etc., which has brought a wealth of benefits for all parties involved. (Pecino et al., 2019; Pillay, 2020). According to a survey by HBR Raed et al., (2023), nearly half of all business and technology executives (50%) believe that their organisations will miss out on new business opportunities if technology-driven transformation fails to materialise. In this age of digital transformation, engaging employees in the success of the organisation is a pressing concern. According to several studies, digital transformation has made the relationship between organisations and their employees more than just a transactional one; it has become more meaningful and purposeful. According to Tworek et al., (2023). Hence, the aim of this study is to examine the mediating role of employee engagement and perceived organizational support on the effect of business intelligence, digital transformation and digital leadership on employee satisfaction within the Commercial Banking Sector in Jordan.

Literature Review and Hypotheses Development

Business Intelligence and Employee Satisfaction

The term "user satisfaction" refers to how content users are with the information system that they utilise for their daily work (Ives & Olson, 1984). One alternative measure of an information system's success is the degree to which its users are satisfied with the system's performance. Satisfaction and performance with the system are also evaluated using subjective metrics. Journal of Contemporary Management Issues, nevertheless, information system satisfaction alone is insufficient to draw any firm conclusions about performance. Subjective evaluation of the system's efficacy is characterised as an alternate method that can more properly demonstrate the impacts of the business intelligence system (Binzafrah & Taleedi, 2022). The approach relies on the level of satisfaction felt by the user, decision-maker, or employee in relation to the issue at hand.The utilisation of the system is another, more popular metric for evaluating the success of an information system. It is the degree to which the user finds the system to be useful; this degree is affected by the user's modality, manner of usage, and the purpose of using the system. According to Wilder et al., (2014), the efficiency and usefulness of business intelligence systems are determined, in part, by how the system is used. When considering its impact on customer happiness, according to studies, in order to be satisfied with the system, one must first use it. However, Wieder et al (2012) discovered that if users have a pleasant experience with the system, they are more likely to use it again. Contrarily, there has been a wide range of outcomes from studies examining the link between information system use and user performance, from negligible correlations to modest to irrelevant correlations. Hence, it's important to check if the selected model of system satisfaction is sufficient, and if feasible, link it to the system's use in studies investigating the connection to individual performance. Various usage metrics, such as intended use, frequency of use, self-reporting (personal perception), and actual use, have been utilised in the past by information systems research. People that utilise the system often

exaggerate or understate how much they use it. Thus, while not everyone agrees, the use is not viewed as a powerful measure. Consider the work of Varma & Dutta, (2023), who established a strong correlation between system use and intention to use. Measuring utilisation and if frequency of use is a sufficient measure is often an area where consensus has not been reached. Instead of focusing on how often or for how long users access the system, one recommendation is to measure its impact (Han & Bi, 2023). Individuals report feelings of satisfaction when their actual experiences match their expectations (Storey et al., 2019). According to earlier studies (Selimović et al., 2021), using information systems is frequently associated with satisfaction. Organisations face difficulties in sourcing and managing big data due to issues with the authenticity, accuracy, quality, and quantity of data (Ain et al., 2019). According to Kapo et al., (2021), business intelligence has become a cutting-edge strategy for competitive advantage through the discovery of unrealized value. Business intelligence (BI) significantly improves a company's ability to store, organise, analyse, and combine data, which in turn enables it to gain insights and develop new products (Bharadiya, 2023). Due to the complexity of the processes needed to achieve business performance, the difficulty of working without the extensive use of technological systems, and the ability to handle and analyse big data, companies are forced to use analytical business intelligence tools (Hmoud, et al., 2023). According to Deb, et al., (2023), this is due to the fact that modern businesses rely on a variety of technological infrastructures. Companies can improve their decision-making, find solutions to problems they could not solve before, and offer better products and services to their customers by storing data in data warehouses, organising it, verifying its accuracy, and searching for new data relationships. Based on these evidences, this study therefore proposes that

H1: Business Intelligence and Employee Satisfaction have positive and significant relationship

Digital Transformation and Employee Satisfaction

Job satisfaction, often known as employee satisfaction, is a concept with numerous proposed definitions. Many people look to Locke's definition as a leading example. “The pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values” is how Locke (1969) describes job satisfaction. When workers experience job pleasure, it's because of a confluence of circumstances that include their mental health, their physical well-being, and their immediate surroundings. Contrarily, according to Locke, dissatisfaction with one's job is an unpleasant emotional condition that, depending on one's job value, can be aggravating or even obstructive. Therefore, these two concepts stem from how people interpret the connection between their expectations and their evaluations of reality. Computer scientists frequently draw parallels between AI and the study of human intelligence (Van Veldhoven & Vanthienen, 2022). The field of computational approaches utilised to assist businesses in operating their operations is sometimes compared by computer scientists to artificial intelligence (Poláková-Kersten et al., 2023). The results are far better when the intended users are included in the product's early stages of development, according to the research (Akdere & Egan, 2020). A vital component of innovation and creativity, digital technology serves as a powerful conduit for connecting companies with their consumers. According to Ola (2022), the majority of academics believed that the advancement of their areas could only be achieved through the integration of technology systems and instruments into operational, administrative, and industrial settings. In order to

do this, the researcher came up with long-term strategies that can serve as a foundation for creating comprehensive plans for subsequent product revisions (Basami, 2022). The process included formulating a strategy (Kakkar et al., 2023). An example of a technical tool that can assist managers and decision-makers in making sense of the enormous amounts of information available in online repositories and databases is artificial intelligence (Akdere, & Egan, 2020). It opens the door for businesses to try out new operating models, which can improve their lives in many ways. Among these goals are expanding the company's reach and influence in the market, creating innovative goods that resonate with customers, and strengthening the organization's ability to adapt and grow. Consequently, this study suggests that:

H2: Digital Transformation is positively and significantly influencing the Employee Satisfaction

Digital Leadership and Employee Satisfaction

As stated by Locke (1969) in Ayu et al (2018), job satisfaction is characterised as a state of pleased or positive emotion that arises from an evaluation or experience related to work. Another way to look at job satisfaction is as the degree to which workers believe their work contributes meaningfully to society. Optimism about one's work is associated with high levels of job satisfaction (Dappa et al., 2019), whereas pessimism is associated with low levels of job satisfaction. Companies require digital competences that can leverage IT to survive in today's global business climate, where competition is strong. One definition of digital competence is the ability to effectively use digital tools and resources. The ability to effectively use information and communication technologies has been defined by a number of different names in recent years, including information literacy, digital literacy, 21st century skills, digital competencies, information technology skills, and digital skills (Goestjahjanti et al., 2020). competences in technology, goods, and digital services are known as digital competences. Maye sand claims as a whole, digital competence places an emphasis on methods, techniques, habits, and ideas, followers. Digital applications that centre on the application of digital competencies also exist (Kupiek, 2021). Leaders in the modern digital era must inspire their followers to maximise the value of the company's digital resources. According to Soon & Salamzadeh (2021), the fast advancement of digital technology in the past few years has caused many companies to undergo substantial changes in their organisational structures and the functions that personnel carry out. The new circumstances will necessitate extensive changes to several parts of the business. Among these factors are the available job types, the culture of the organisation, and the technology that is utilised at work (Salam, 2023). In order to better address current demands and set the stage for an uncertain future, transformational activities are driving adjustments. According to Vinh et al (2022), digital leaders require a certain set of abilities to help with the transition and reduce the impact of these issues. Leaders have a lot of influence because they prepare their companies for a future that is becoming more and more unpredictable (Al-Abdallah, et al., 2023). For example, due to the inherent uncertainty of digital technology's future, it is challenging for digital leaders to motivate their teams to work with a new set of technologies that may or may not be embraced. The fact that many leaders do not possess the necessary abilities to be successful digital leaders makes this an even more widespread problem for digital leaders. Their apparent resolve to learn these skills at last is encouraging. Companies had a hard time thriving in the internet economy due to a lack of resources that would have helped them

connect with consumers, create unique and innovative products at low prices, and stay ahead of the competition (Nemțeanu, et al., 2022). To stay competitive in today's market, most businesses are investing in technological advancements. This is driven by several factors, including the increasing costs of transportation, operations, and commercial costs; the growing dependence on technological systems to manage large amounts of data; and, of course, the rising expectations of customers. This study therefore proposes that

H3: Digital Leadership is positively and significantly influencing the Employee Satisfaction

Mediating Role of Employee Engagement and Perceived Organizational Support

Employee engagement and perceived organizational support play a central role as mediators in the relationship between technology use, leadership style, and employee satisfaction in the banking sector. The Perceived Organisational Support is a crucial idea in the notion of organisational support. Employee allegedly believes that the organisation places a strong priority (Wu et al., 2023). A worker's perception of their employer's appreciation for their efforts and concern for their well-being is crucial to organisational support theory. According to proponents of the organisational support theory, Perceived Organisational Support not only helps workers meet their socioemotional needs, but it also shows them whether their employer is willing to acknowledge their mounting efforts (Rasool, et al., 2021). The argument states that workers act in line with the reciprocity standard when they trade their dedication and hard work for Perceived Organisational Support and the promise of future benefits. Employees that score higher on the Perceived Organisational Support scale tend to be more invested in their work and their company, according to a plethora of studies (Moe et al., 2023). This translates to better performance, lower turnover, and happier, more fulfilled workers overall (Lin & Huang, 2021). Affective attachment, according to Buchanan's (1974) research, is positively associated with managers' beliefs that their organisation respects and values their work and will fulfil its promises. According to Employee Engagement Theory, companies may boost morale and output by encouraging workers to take on more responsibility, providing them with resources when they need them, and posing challenging but ultimately rewarding tasks (Sofiyanti & Najmudin, 2023). A plethora of scholarly investigations into methods to enhance Employee Engagement have followed Kahn's work. These results are complemented by the numerous definitions of Employee Engagement that have been created over the last 20 years by researchers. In various cases, there are: the degree to which an individual is passionate about their work, the amount of effort they put in beyond what is required, and the positive mental, emotional, and behavioural states that align with the organization's goals (Sinclair, 2021). Full-time employees in conventional organisations who showed up for work in person five days a week for eight hours were the primary focus of previous studies on engagement. Employee engagement has been impacted by the many changes brought about by the proliferation of contemporary technology, which has altered corporate practices and the way people work (Duque et al., 2020). An increasingly common trend is the rise of remote work. As long as they have access to a computer and the Internet, workers are free to do their jobs from anywhere. According to Astuty & Udin, (2020), numerous companies started using remote work as soon as it was feasible. Workers had to swiftly adjust to new situations that demanded adaptation, such as a desk, chair, computer, and a reliable Internet connection; they also had to become used to working with coworkers who were family members; and they had to learn new ways of communicating and using software. With a heightened sense of urgency to contribute to the company's success in the

face of these unforeseen challenges, engaged employees threw themselves wholeheartedly into their work. A higher risk of burnout syndrome or work-life conflict was associated with engaged employees working longer and harder while working remotely, according to studies (Sutiyem et al., 2020). Working remotely adds another layer of difficulty for employees since they aren't physically present with the company or their coworkers. This might cause them to feel lonely, unimportant, and disconnected (Carrell et al., 2022). Not only is there no authorised activity for constructing and enhancing employee engagement while working remotely, but there is also no direct "face-to-face" communication, further complicating matters. Employees' social demands in distant work environments can only be satisfied by communication and collaboration with coworkers (Shanock, et al., 2019). A lot more people are starting to realise how important it is to stay in touch and share information freely. One solution is to hold meetings virtually, where everyone may pretend to be in the same room by turning on their webcams (Burnett & Lisk, 2021). This study therefore suggests that

H4: Business Intelligence, Digital Transformation, and Digital Leadership are positively and significantly influencing the Employee Engagement and Perceived Organizational Support
H5: Employee Engagement and Perceived Organizational Support are positively and significantly influencing the Employee Satisfaction
H6: Employee Engagement and Perceived Organizational Support mediate influence of Business Intelligence, Digital Transformation, and Digital Leadership on Employee Satisfaction

Based on the above literatures, the research model is shown diagrammatically in Fig. 1

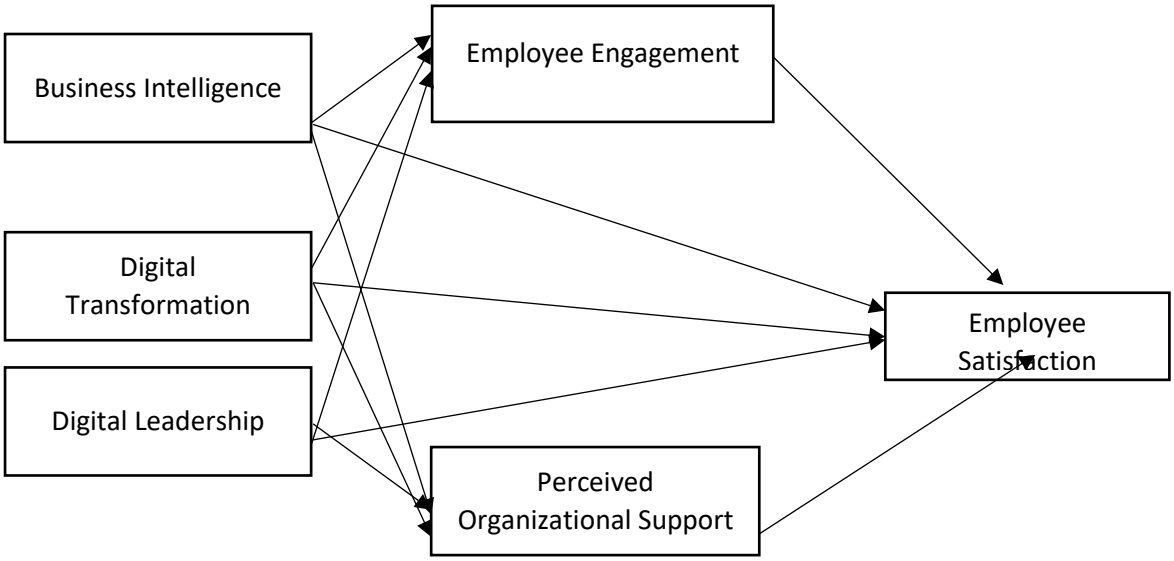

Fig 1 Model

Research Methodology
The research design for this study is quantitative and relies on a questionnaire-based survey as the primary data collection method. The study targets employees in the commercial banking sector in Jordan. The sample was selected through purposive sampling to ensure that the respondents have relevant experience and knowledge of the factors under study. The sample size was determined based on the statistical analysis of G* power (2017) to ensure the validity and reliability of the study. The sample size was 276 employees in the commercial

banking sector in Jordan. To measure the constructs under study, specific variables were operationalized through carefully crafted survey items. The questionnaires use scales that have been modified from previous studies to adapt to this study. In the initial study, the scale revealed a good reliability with a Cronbach's alpha of 0.9 and has been regularly utilised in investigations concentrating on organizational behaviour. For all items, the researcher utilised a 10-point Likert scale, where 1 signifies complete disagreement and 10 means complete agreement. The data obtained represent the period from September to October 2023, during which the study was conducted and its hypotheses were tested using partial least structural equation models (PLS-SEM). Causal relationships between variables were tested using inferential statistics.

Research Findings

To verify the construct reliability of the measurement model, confirmatory factor analysis (CFA) was used, and based on Cronbach's alpha coefficient and factor loading, the variables indicate a high degree of reliability and validity according to Sujati & Gunarhadi (2020). The Cronbach alpha was greater than 0.7 and the factor loading was greater than 0.5. This includes good internal consistency in the measurement model, inflation factor readings of less than 5, and the absence of multicollinearity based on the data listed in Table 1. Table 2 shows the Cronbach alpha greater than 0.7 and the factor loading. AVE is greater than 0.5. The results of the CFA analysis give high measurement reliability for the dimensions that were used in this research.

Table 1
Factor Loading Results

Items	BI	DL	DT	EE	ES	POS	VIF
BI1	0.837						2.242
BI2	0.881						2.668
BI3	0.886						2.995
BI4	0.831						2.338
BI5	0.765						1.769
DL1		0.758					1.979
DL2		0.783					1.981
DL3		0.795					2.439
DL4		0.842					2.825
DL5		0.809					2.624
DL6		0.696					1.471
DL7		0.707					1.471
DT1			0.848				2.133
DT2			0.864				2.502
DT3			0.882				2.726
DT4			0.859				2.089
DT5			0.780				2.049
DT6			0.714				1.739
DT7			0.652				1.358
EE1				0.809			2.253

EE2				0.815			2.779
EE3				0.828			2.281
EE4				0.826			2.032
EE5				0.687			1.730
EE6				0.680			1.699
ES1					0.776		1.802
ES2					0.881		2.131
ES3					0.871		2.998
ES4					0.824		2.201
ES5					0.783		1.897
POS1						0.766	2.545
POS2						0.696	2.447
POS3						0.800	1.080
POS4						Deleted	-
POS5						Deleted	-

Table 2
Reliability Results

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
BI	0.896	0.903	0.924	0.708
DL	0.887	0.889	0.911	0.595
DT	0.906	0.908	0.927	0.646
EE	0.866	0.864	0.901	0.603
ES	0.884	0.885	0.916	0.686
POS	0.876	0.715	0.799	0.570

Table 3 shows the HTMT ratios between different constructs: business intelligence (BI), digital leadership (DL), digital transformation (DT), employee engagement (EE), employee satisfaction (ES), and perceived organizational support (POS). In Table 3, the values in the range from 0 to 1 denote the heterotrait-monotrait ratio. There may be issues with discriminant validity if the HTMT value is close to 0.85 or 1. This means that the constructs are strongly related and may not differ enough. The values presented show the relationships between the constructs. In general, the HTMT ratios appear to be below the threshold of 0.85, indicating adequate discriminant validity between most constructs. BI and POS have the highest HTMT ratio of 0.674, which may indicate a moderate level of shared variance. However, these values are within an acceptable range.

Table 3
Heterotrait-Monotrait Ratio Discriminant Validity

Constructs	BI	DL	DT	EE	ES	POS
BI	-					
DL	0.674					
DT	0.626	0.796				
EE	0.713	0.78	0.798			
ES	0.751	0.774	0.787	0.773		
POS	0.572	0.8	0.78	0.831	0.764	-

The Fornell-Larcker criterion tests discriminant validity by comparing the square root of the average variance extracted (AVE) with the correlations between the constructs (Paramarta et al., 2023). The table shows the correlation values between the constructs: business intelligence (BI), digital leadership (DL), digital transformation (DT), employee engagement (EE), employee satisfaction (ES), and perceived organizational support (POS). For each construct, the values along the diagonal represent the square root of the AVE, while the values outside the diagonal are the correlations between the constructs. As long as the square root of the AVE of a construct is higher than its correlation with other constructs, the Fornell-Larcker criterion says that the construct is discriminantly valid. In Table 5, the diagonal items (square root AVE) are higher than the non-diagonal items (correlations), indicating adequate discriminant validity between the constructs.

Table 4
Fornell-Larcker Discriminant Validity

Constructs	BI	DL	DT	EE	ES	POS
BI	**0.841**					
DL	0.623	**0.772**				
DT	0.579	0.618	**0.804**			
EE	0.643	0.692	0.683	**0.777**		
ES	0.762	0.715	0.619	0.678	**0.828**	
POS	0.517	0.674	0.675	0.677	0.704	**0.755**

Table 5 and Fig. 2 present the results of a path analysis showing the relationships between the different constructs in the study. The analysis assesses the paths or links between the constructs and provides key statistics to determine the significance of these relationships. This path shows a positive relationship between business intelligence (BI) and employee satisfaction (ES). It is possible that higher BI is linked to higher ES because the beta value of 0.402 is statistically significant (T statistics = 13.642, $p < 0.001$). The result shows that the impact of digital transformation (DT) on employee satisfaction (ES), with a low beta value of 0.009 and a high p-value of 0.822, does not support the relationship, suggesting that DT does not significantly influence ES. Digital leadership (DL) also has no significant effect on employee satisfaction (ES), as the beta value is 0.047 and the p-value is 0.214, indicating that this relationship is not supported. Employee engagement (EE) is positively and significantly impacted by business intelligence (BI). The relationship between higher BI and higher EE is confirmed by the beta value of 0.168 (T statistics = 9.356, $p < 0.001$). Digital Transformation (DT) and Employee Engagement (EE) are strongly correlated, as seen by the significant beta

value of 0.678 (T-statistic = 22.384, p < 0.001). Digital leadership (DL) also has a positive impact on employee engagement (EE), with a beta value of 0.133 (T-statistic = 3.846, p < 0.001), supporting this relationship. Perceived organizational support (POS) is significantly impacted by business intelligence (BI), with a beta value of 0.119 (T-statistic = 3.357, p < 0.001) suggesting a supported link. There is compelling evidence that the perceived organizational support (POS) is positively impacted by digital transformation (DT). A beta value of 0.348 (T-statistic = 6.893, p < 0.001) demonstrates this. With a beta value of 0.315 (T-statistic = 5.71, p < 0.001), digital leadership (DL) also positively affects perceived organizational support (POS), supporting the relationship. A beta value of 0.303 (T-statistic = 8.538, p < 0.001) shows that employee engagement (EE) has a big effect on employee satisfaction (ES). This is strong evidence for this pathway. Employee satisfaction (ES) is positively impacted by perceived organizational support (POS), according to a beta value of 0.253 (T-statistic = 9.761, p < 0.001).

Table 5
Path Analysis Results

Path Analysis	Beta	Standard deviation	T statistics	P values	Decision
BI -> ES	0.402	0.029	13.642	0.000	Supported
DT -> ES	0.009	0.039	0.226	0.822	Not Supported
DL -> ES	0.047	0.038	1.242	0.214	Not Supported
BI -> EE	0.168	0.018	9.356	0.000	Supported
DT -> EE	0.678	0.03	22.384	0.000	Supported
DL -> EE	0.133	0.035	3.846	0.000	Supported
BI -> POS	0.119	0.036	3.357	0.001	Supported
DT -> POS	0.348	0.050	6.893	0.000	Supported
DL -> POS	0.315	0.055	5.71	0.000	Supported
EE -> ES	0.303	0.035	8.538	0.000	Supported
POS -> ES	0.253	0.026	9.761	0.000	Supported

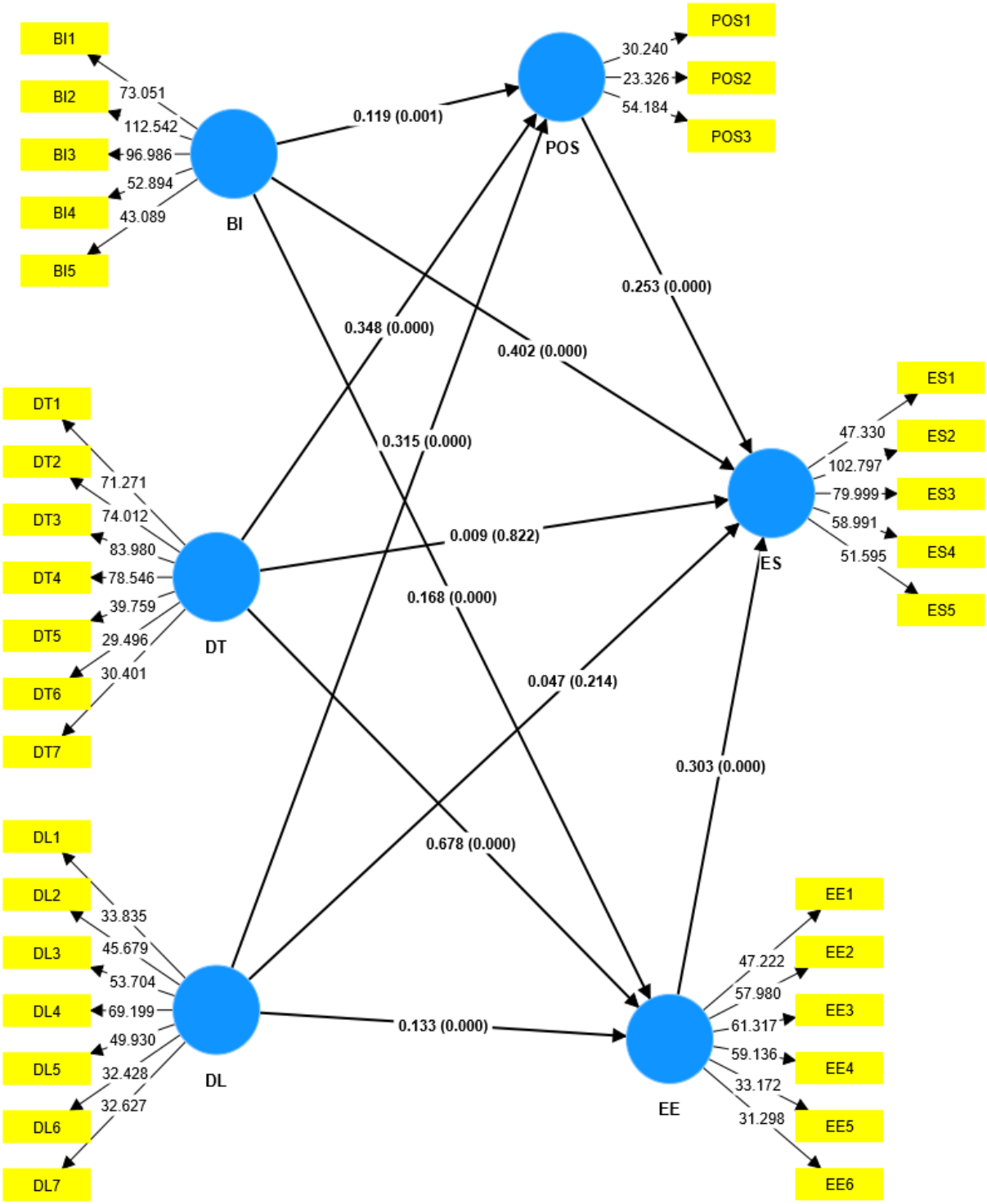

Fig 2 Graphical Results

The mediation analysis's findings, which highlight the mediated paths between the constructs, are shown in Table 6. It assesses the connections between Perceived Organizational Support (POS), Employee Satisfaction (ES), Employee Engagement (EE), Digital Transformation (DT), and Digital Leadership (DL). The findings demonstrated that the beta value of 0.081 is statistically significant (T statistics = 6.747, $p < 0.001$), confirming the considerable influence of business intelligence on employee satisfaction as mediated by perceived organizational support and employee engagement. Similarly, there is a strong beta

value of 0.293 (T statistics = 9.841, p < 0.001) on the path that links Digital Transformation (DT), Employee Engagement (EE), Perceived Organizational Support (POS), and Employee Satisfaction (ES). This signifies that Digital Transformation mediated by Perceived Organizational Support and Employee Engagement significantly influences Employee Satisfaction. Finally, the beta value of 0.120 (T statistics = 6.330, p < 0.001) signifies that Digital Leadership mediated by Perceived Organizational Support and Employee Engagement significantly influences Employee Satisfaction.

Table 6
Mediation Results

Path Analysis	Beta	Standard deviation	T statistics	P values	Decision
BI -> EE -> POS -> ES	0.081	0.012	6.747	0.000	Supported
DT -> EE -> POS -> ES	0.293	0.030	9.841	0.000	Supported
DL -> EE -> POS -> ES	0.120	0.019	6.330	0.000	Supported

Discussion

There is a strong and statistically significant correlation between business intelligence (BI) and employee satisfaction (ES) in the commercial banking industry in Jordan. The results indicate that the extent of the use of business intelligence tools and practices in this sector has a direct impact on employee satisfaction. The positive aspect of the relationship means that as digital transformation initiatives increase, employee satisfaction tends to increase. There may be a direct and important link between efforts to digitally transform and employee satisfaction levels, but the statistical significance of this effect means that it is not strong enough to draw firm conclusions. Possible reasons for the lack of statistical significance could be various external or unmeasured internal factors that could have an impact on employee satisfaction. It could also suggest that the use of digital transformation alone is not sufficient to significantly impact employee satisfaction or that the timeframe or extent of digital transformation adoption has not yet reached the threshold to demonstrate a clear, direct impact on employee satisfaction in the Jordanian commercial banking sector. The path depicting the relationship between digital leadership (DL) and employee satisfaction (ES) in the Jordanian commercial banking sector shows a positive but not statistically significant relationship. This indicates that although there is a correlation between these two factors, the impact of digital leadership on employee satisfaction in this sector does not appear to be statistically significant based on the analysis conducted. The positive relationship implies that, with an increase in digital leadership practices, employee satisfaction could also increase. However, the fact that the observed effect is not statistically significant suggests that it is not strong enough to be shown as a direct and significant link between digital leadership and employee satisfaction. The lack of statistical significance could be because of many unmeasured factors that affect employee satisfaction, or it is possible that digital leadership does not have a big effect on employee satisfaction in this sector. Also, it is possible that the amount of time or the speed with which digital leadership has been put into place is not long enough to show a statistically significant effect on employee satisfaction in the Jordanian commercial banking sector. The observed path indicates a substantial and statistically significant relationship between business intelligence (BI) and employee engagement (EE) in the commercial banking sector in Jordan. This indicates a positive relationship where increased implementation or utilization of business intelligence strategies appears to be strongly associated with higher employee engagement. The substantial positive relationship

means that implementing or improving business intelligence practices in the Jordanian commercial banking sector has a remarkable impact on increasing employee engagement. This could mean that the proper application of these strategies has created a more engaging work environment that fosters higher employee commitment, retention, and motivation. The statistical significance of this link implies that there is a significant relationship between BI and EE and that the observed effect is not just the result of chance. The discovery is significant because it emphasizes how business intelligence boosts employee engagement in the commercial banking industry, which may improve output, teamwork, and general performance.

An interesting discovery is the path showing a positive and significant association between employee engagement (EE) and digital transformation (DT) in the Jordanian commercial banking sector. This indicates that there is a significant and positive correlation between employee engagement and the scope of digital transformation projects. The robust positive association suggests that there is a correlation between the growth or improvement of digital transformation projects in the commercial banking industry and an increase in employee engagement. The findings of this study indicate that there is a correlation between the adoption of digital change by organisations, the utilisation of cutting-edge technology, and the implementation of comprehensive digital transformation. One way to make sure that workers can keep their work and personal life separate is to implement policies and procedures that limit their access to company apps and tools outside of work hours. In a similar vein, things would be much better if it were illegal to send emails, texts, or make phone calls outside of business hours.Employees who do their jobs from home may announce their "preferred time and means of communication," when they would be most available by email, phone, or video chat. It boils down to a person's belief that their personal and professional lives are complementary and help him grow, as well as the harmony and alignment of his various responsibilities. An extremely involved employee's social life is less active, they have fewer friends and family members, and they spend less time with their friends and family. Dissatisfaction and stress brought on by work-life imbalances can cause employees to disengage.

Positive and significant relationship have found between BI and POS in the commercial banking sector in Jordan. Researchers have found that business intelligence enhances the capacity to assess performance, which in turn is strongly linked to gaining a competitive advantage and boosting the organization's overall position. This study also demonstrated that the presence of business intelligence capabilities has an impact on the reliability of business intelligence. The organization's reporting management and information analysis systems should be equipped with sophisticated and advanced formatting and capabilities. Additionally, these systems should be effectively controlled through highly interactive and intelligent reporting. IT managers should be responsible for overseeing the planning and budgeting activities, as well as the profitability of intelligent systems within the business unit. They should also ensure that all information related to intelligent systems is accessible to senior and middle managers. Additionally, the management of reporting and information systems should be easily accessible to all users. Researchers have found that business intelligence enhances the organization's ability to assess performance, which in turn leads to a competitive advantage. This study additionally demonstrated that the incorporation of BI infrastructure has an impact on the dependability of business intelligence. The planning, budgeting, and decision-making process in the integrated intelligent systems IT department should exhibit greater speed and accuracy compared to non-intelligent and manual systems.

Senior managers should utilize the information provided by intelligent systems to evaluate, review, and make decisions regarding future payment arrangements. A work culture that values and supports employees, as well as one that encourages their participation in digital transformation projects, is the kind of culture that digital leaders should strive to cultivate. This is shown by the mediating effect of perceived organizational support and employee engagement. This emphasizes the significance of a supportive work environment in which organizational factors that foster employee engagement and job satisfaction in the Jordanian commercial banking sector support digital leadership as a critical role in guiding technology integration efforts.

Implication of the Study

Research in this area aimed to help the Commercial Banking Sector in Jordan increase both employee happiness on the job and the value their company generated to the economy through the use of business analytics, digital transformation, and effective leadership. In addition, the study's overarching goal is to provide comprehensive data on the benefits of adopting new concepts like digital leadership, business intelligence, and digital transformation on employee happiness and company revenue growth. Satisfaction among workers on the job is significantly affected by digital leadership, digital transformation, and business intelligence, according to the results. Researchers found that managers should stop acting like traditional managers and start leading their organisations. This can be achieved by combining the classic theories of directing, controlling, and decision-making with the behavioural theory of direct interaction and giving employees the information, they need to do their jobs. An increase in the percentage of flexibility, the transfer of valuable information to employees, and the support of the application of entrepreneurial and creative ideas for employees—who can add new values to products and create a creative environment that can increase employee satisfaction—were the main points of the research on the importance of digital leadership. The capacity of business intelligence systems to aid managers and staff in enhancing their business performance is better understood thanks to research. According to statistical research, using business intelligence can improve workers' capacity to provide new values for competitive end goods.In the midst of the coronavirus pandemic and the widespread adoption of IT systems for company operations, companies saw a marked improvement in employee efficiency and the ability to cut down on transaction costs. Now, research shows that digital transformation can cut down on the amount of time employees spend interacting directly with customers, which means they can put that extra time to better use by increasing their productivity. Digital leadership improves employee performance and increases company value, according to this study. This is achieved by reshaping managers' responsibilities in ways that enhance their abilities in leadership, teamwork, communication, and decision-making with employees, partners, and consumers. This result is consistent with previous research. In addition to demonstrating how business intelligence benefits the company, this study demonstrates how it improves employee performance on the job. To achieve this goal, the researcher employs web-based analytical tools to boost organisational performance, diligently manage data in the data warehouse to minimise data conflicts, and strive to transform knowledge capabilities into innovative goods and services that have a competitive edge. This result is consistent with previous research. Finally, the study demonstrates how digital transformation, new business models, and a complete shift in the scope of work to be reliant on technological progress all contribute to improved worker productivity and business contributed benefit.

Limitation and Recommendation for Future Studies

A sample of 276 employees in Jordan's commercial banking industry participated in the survey. This sample size might not accurately reflect the diversity within the industry, even though it is sufficient for many statistical analyses. To attain wider generalizability, larger and more diversified sample sizes should be taken into account in future research. Cross-sectional data, which captures a moment in time, is used in this study. To gain a deeper comprehension of the dynamics in the banking industry, longitudinal data may provide insight into how these interactions change over time. The information gathered for this study is derived from participant self-reporting. Response bias could result from this strategy, and participants might not always give true information. For a more thorough analysis, future research may include objective metrics or outside evaluations. The study's scope was restricted to Jordan's commercial banking industry. The dynamics of other sectors could differ, so the findings might not apply entirely to other businesses. To get comparative insights, future studies could look at these links in other sectors. A longitudinal design could be used in subsequent research to document changes over time. This would provide a more thorough comprehension of the ways in which employee engagement and perceived organizational support function as mediating factors in the relationship between business intelligence, digital transformation, and digital leadership and employee satisfaction. This may lead to more culturally sensitive strategies to improve job satisfaction. Researchers could design and test interventions in commercial banks based on the results of this study. Implementing strategies to improve business intelligence, digital transformation, or digital leadership and observing their impact on employee satisfaction and mediating variables could provide practical insights.

Conclusion

The study looks at how business intelligence, digital transformation, and digital leadership affect employee satisfaction in Jordan's commercial banking sector. It does this by looking at how employee engagement and perceived organizational support (POS) play a role. The results show how complex the factors are that affect employee job satisfaction in this sector. The results reveal several noteworthy relationships between these variables. First, the study finds that business intelligence significantly and positively influences both employee satisfaction and employee engagement. However, digital transformation and digital leadership were not found to have a significant direct relationship with employee satisfaction. However, they were significantly related to employee engagement, suggesting an indirect influence on employee satisfaction through mediation. Furthermore, all three factors, BI, DT, and DL, are significantly and positively related to perceived organizational support. This could be crucial to understanding how technological and leadership elements improve employees' perceived support and thus indirectly affect their job satisfaction. It is further highlighted that both employee engagement and perceived organizational support significantly mediate the relationship between the primary factors (BI, DT, and DL) and employee satisfaction. This shows that fostering high levels of engagement and perceived organizational support can significantly improve job satisfaction, even if the direct relationship between technology (DT, DL) and job satisfaction is not significant. The Partial Least Squares Structural Equation Modeling (PLS-SEM) methodology used in the study ensured a rigorous analysis and provided a solid understanding of the interplay of these critical factors in the Jordanian commercial banking sector. Despite the comprehensive insights gained from this research, certain limitations were identified.

References

Abdulquadri, A., Mogaji, E., Kieu, T. A., & Nguyen, N. P. (2021). Digital transformation in financial services provision: A Nigerian perspective to the adoption of chatbot. *Journal of Enterprising Communities: People and Places in the Global Economy*, *15*(2), 258-281.

Ain, N., Vaia, G., DeLone, W. H., & Waheed, M. (2019). Two decades of research on business intelligence system adoption, utilization and success–A systematic literature review. *Decision Support Systems*, *125*, 113113.

Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. *Human Resource Development Quarterly*, *31*(4), 393-421.

Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. *Human Resource Development Quarterly*, *31*(4), 393-421.

Al-Abdallah, G., Helal, R., Dandis, A. O., & Wright, L. T. (2023). Differences in how leaders and employees view organizational changes: Lessons from an international multicultural context. *Cogent Business & Management*, *10*(2), 2228028.

Amirrudin, M., Nasution, K., & Supahar, S. (2021). Effect of variability on Cronbach alpha reliability in research practice. *Jurnal Matematika, Statistika dan Komputasi*, *17*(2), 223-230.

Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management*, *28*(1), 229-238.

Astuty, I., & Udin, U. D. I. N. (2020). The effect of perceived organizational support and transformational leadership on affective commitment and employee performance. *The Journal of Asian Finance, Economics and Business (JAFEB)*, *7*(10), 401-411.

Basami, M. H. S. S. A. (2022). The Impact of Resistance to Change on the Implementation of Quality Management System in the Ministry of Education (General Directorate of Education in South Batinah Governorate as a Model). *Academic Journal of Research and Scientific Publishing| Vol*, *3*(33).

Bharadiya, J. P. (2023). A comparative study of business intelligence and artificial intelligence with big data analytics. *American Journal of Artificial Intelligence*, *7*(1), 24.

Binzafrah, F., & Taleedi, F. (2022). The effect of business intelligence practices on job satisfaction in the Saudi Electricity Company in the Asir Region. *Journal of Money and Business*, *2*(1), 107-131.

Bozkus, K. (2023). Organizational Culture Change and Technology: Navigating the Digital Transformation.

Burnett, J. R., & Lisk, T. C. (2021). The future of employee engagement: Real-time monitoring and digital tools for engaging a workforce. In *International Perspectives on Employee Engagement* (pp. 117-128). Routledge.

Carrell, W. S., Ellinger, A. D., Nimon, K. F., & Kim, S. (2022). Examining the relationships among managerial coaching, perceived organizational support, and job engagement in the US higher education context. *European Journal of Training and Development*, *46*(5/6), 563-584.

Dappa, K., Bhatti, F., & Aljarah, A. (2019). A study on the effect of transformational leadership on job satisfaction: The role of gender, perceived organizational politics and perceived organizational commitment. *Management Science Letters*, *9*(6), 823-834.

Deb, S. K., Nafi, S. M., Mallik, N., & Valeri, M. (2023). Mediating effect of emotional intelligence on the relationship between employee job satisfaction and firm performance of small business. *European Business Review*.

Donnellan, J., & Rutledge, W. L. (2019). A case for resource-based view and competitive advantage in banking. *Managerial and Decision Economics*, *40*(6), 728-737.

dos Santos, P. M., & Cirillo, M. Â. (2023). Construction of the average variance extracted index for construct validation in structural equation models with adaptive regressions. *Communications in Statistics-Simulation and Computation*, *52*(4), 1639-1650.

Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: a comparison of four procedures. *Internet Research*, *29*(3), 430-447.

Goestjahjanti, S. F., Novitasari, D., Hutagalung, D., Asbari, M., & Supono, J. (2020). Impact of talent management, authentic leadership and employee engagement on job satisfaction: Evidence from south east asian industries. *Journal of Critical Reviews*, *7*(19), 67-88.

Han, T. Y., & Bi, J. W. (2023). Exploring the asymmetric relationships between satisfaction factors and overall employee satisfaction in the airline industry. *Current Issues in Tourism*, 1-20.

Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies*, *58*(5), 1159-1197.

Haseeb, M., Hussain, H. I., Kot, S., Androniceanu, A., & Jermsittiparsert, K. (2019). Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance. *Sustainability*, *11*(14), 3811.

Hmoud, H., Al-Adwan, A. S., Horani, O., Yaseen, H., & Al Zoubi, J. Z. (2023). Factors influencing business intelligence adoption by higher education institutions. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(3), 100111.

Imamov, M., & Semenikhina, N. (2021). The impact of the digital revolution on the global economy. *Linguistics and Culture Review*, *5*(S4), 968-987.

Kakkar, S., Kuril, S., Singh, S., Saha, S., & Dugar, A. (2023). The influence of remote work communication satisfaction and CSR association on employee alienation and job satisfaction: a moderated-mediation study. *Information Technology & People*, *36*(5), 1810-1834.

Kapo, A., Turulja, L., Zaimović, T., & Mehić, S. (2021). Examining the effect of user satisfaction and business intelligence system usage on individual job performance. *Management: Journal of Contemporary Management Issues*, *26*(2), 43-62.

Kim, S. H., Kim, M., & Holland, S. (2020). Effects of intrinsic motivation on organizational citizenship behaviors of hospitality employees: The mediating roles of reciprocity and organizational commitment. *Journal of Human Resources in Hospitality & Tourism*, *19*(2), 168-195.

Knekta, E., Runyon, C., & Eddy, S. (2019). One size doesn't fit all: Using factor analysis to gather validity evidence when using surveys in your research. *CBE—Life Sciences Education*, *18*(1), rm1.

Kupiek, M. (2021). *Digital Leadership, Agile Change and the Emotional Organization: Emotion as a Success Factor for Digital Transformation Projects*. Springer Nature.

Kurdi, B., Alshurideh, M., & Alnaser, A. (2020). The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning. *Management Science Letters*, *10*(15), 3561-3570.

Lin, C. Y., & Huang, C. K. (2021). Employee turnover intentions and job performance from a planned change: the effects of an organizational learning culture and job satisfaction. *International Journal of Manpower*, *42*(3), 409-423.

Meira, J. V. D. S., & Hancer, M. (2021). Using the social exchange theory to explore the employee-organization relationship in the hospitality industry. *International Journal of Contemporary Hospitality Management*, *33*(2), 670-692.

Moe, T. V. (2023). *Enhancing Leadership effectiveness in Virtual Teams: The Moderating Role of Transformational Leadership on Exhaustion and Job Satisfaction* (Master's thesis, UiT Norges arktiske universitet).

Nemțeanu, M. S., Dinu, V., Pop, R. A., & Dabija, D. C. (2022). Predicting job satisfaction and work engagement behavior in the COVID-19 pandemic: a conservation of resources theory approach.

Niu, Y., Ying, L., Yang, J., Bao, M., & Sivaparthipan, C. B. (2021). Organizational business intelligence and decision making using big data analytics. *Information Processing & Management*, *58*(6), 102725.

Ola, D. E. (2022). Pace of Technology Changes, Need for Adaptation, and Demand for Skills: Skills Adaptation for Quickly Evolving Technology-Based Workplaces. In *Sustainability and the Future of Work and Entrepreneurship for the Underserved* (pp. 364-383). IGI Global.

Paramarta, W. A., Supartha, I. W. G., Dewi, I. G. A. M., & Surya, I. B. K. (2023). Confirmatory and Exploratory Factor Analysis for Validating the Academic Leadership Questionnaire for Indonesia's Private Higher Education. *Migration Letters*, *20*(6), 232-241.

Pecino, V., Mañas, M. A., Díaz-Fúnez, P. A., Aguilar-Parra, J. M., Padilla-Góngora, D., & López-Liria, R. (2019). Organisational climate, role stress, and public employees' job satisfaction. *International journal of environmental research and public health*, *16*(10), 1792.

Pillay, A. A. (2020). Understanding digital leadership competencies to enhance collaboration in South African Banks.

Poláková-Kersten, M., Khanagha, S., van den Hooff, B., & Khapova, S. N. (2023). Digital transformation in high-reliability organizations: A longitudinal study of the micro-foundations of failure. *The Journal of Strategic Information Systems*, *32*(1), 101756.

Pramanik, H. S., Kirtania, M., & Pani, A. K. (2019). Essence of digital transformation—Manifestations at large financial institutions from North America. *Future Generation Computer Systems*, *95*, 323-343.

Raed, H., Qawasmeh, E., Alserhan, A., Ahmad, H., Hammouri, Q., Halim, M., & Darawsheh, D. (2023). Utilizing business intelligence and digital transformation and leadership to enhance employee job satisfaction and business added value in greater Amman municipality. *International Journal of Data and Network Science*, *7*(3), 1077-1084.

Rasool, S. F., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International journal of environmental research and public health*, *18*(5), 2294.

Rožman, M., Tominc, P., & Milfelner, B. (2023). Maximizing employee engagement through artificial intelligent organizational culture in the context of leadership and training of

employees: Testing linear and non-linear relationships. *Cogent Business & Management*, *10*(2), 2248732.

Salam, A. (2023). Navigating the Digital Landscape: Exploring the Interplay of Digital Leadership, E-Learning Anxiety, and Innovative Behavior. *Journal of Digitovation and information system*, *3*(1), 32-46.

Selimović, J., Pilav-Velić, A., & Krndžija, L. (2021). Digital workplace transformation in the financial service sector: Investigating the relationship between employees' expectations and intentions. *Technology in Society*, *66*, 101640.

Shanock, L. R., Eisenberger, R., Heggestad, E. D., Malone, G., Clark, L., Dunn, A. M., ... & Woznyj, H. (2019). Treating employees well: The value of organizational support theory in human resource management. *The Psychologist-Manager Journal*, *22*(3-4), 168.

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, *9*(1), 4-11.

Sofiyanti, N., & Najmudin, N. (2023). The Effect of Leadership Style, Organizational Culture and Compensation on Employee Engagement at Garment Companies in Bandung. *West Science Business and Management*, *1*(03), 147-156.

Soon, C. C., & Salamzadeh, Y. (2021). The impact of digital leadership competencies on virtual team effectiveness in mnc companies in penang, Malaysia. *Journal of Entrepreneurship, Business and Economics*, *8*(2), 219-253.

Storey, M. A., Zimmermann, T., Bird, C., Czerwonka, J., Murphy, B., & Kalliamvakou, E. (2019). Towards a theory of software developer job satisfaction and perceived productivity. *IEEE Transactions on Software Engineering*, *47*(10), 2125-2142.

Sujati, H., & Gunarhadi, S. (2020). Testing the construct validity and reliability of curiosity scale using confirmatory factor analysis. *Journal of Educational and Social Research, 10(4)*, 229-237.

Sutiyem, S., Trismiyanti, D., Linda, M. R., Yonita, R., & Suheri, S. (2020). The impact of job satisfaction and employee engagement on organizational commitment. *Dinasti International Journal of Education Management And Social Science*, *2*(1), 55-66.

Taherdoost, H. A. M. E. D., Sahibuddin, S. H. A. M. S. U. L., & Jalaliyoon, N. E. D. A. (2022). Exploratory factor analysis; concepts and theory. *Advances in applied and pure mathematics*, *27*, 375-382.

Talal Nayef Al Haddid, O. (2021). *The challenges of fulfilling SDG 6 for cleaner water and sanitation, from a multi-stakeholder perspective: A case study of water sustainability in the Jordanian-mining industry* (Doctoral dissertation, University of Sheffield).

Tworek, K., Bieńkowska, A., Hawrysz, L., & Maj, J. (2023). The model of organizational performance based on employees' dynamic capabilities–verification during crisis caused by Black Swan event. *IEEE Access*.

Van Veldhoven, Z., & Vanthienen, J. (2022). Digital transformation as an interaction-driven perspective between business, society, and technology. *Electronic Markets*, *32*(2), 629-644.

Varma, D., & Dutta, P. (2023). Empowering human resource functions with data-driven decision-making in start-ups: a narrative inquiry approach. *International Journal of Organizational Analysis*, *31*(4), 945-958.

Vinh, N. Q., Hien, L. M., & Do, Q. H. (2022). The Relationship between Transformation Leadership, Job Satisfaction and Employee Motivation in the Tourism Industry. *Administrative Sciences*, *12*(4), 161.

Wieder, B., Ossimitz, M., & Chamoni, P. (2012). The impact of business intelligence tools on performance: a user satisfaction paradox? *International Journal of Economic Sciences and Applied Research*, *5*(3), 7-32.

Wilder, K. M., Collier, J. E., & Barnes, D. C. (2014). Tailoring to customers' needs: Understanding how to promote an adaptive service experience with frontline employees. *Journal of Service Research*, *17*(4), 446-459.

Wu, T. J., Yuan, K. S., & Yen, D. C. (2023). Leader-member exchange, turnover intention and presenteeism–the moderated mediating effect of perceived organizational support. *Current Psychology*, *42*(6), 4873-4884.