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Organizational Support Mechanisms and Digital Transformation Success: Investigating Employee Performance Drivers in Educational Institutions

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Abstract. This study explores the impact of job satisfaction, perceived organizational support, and affective commitment on employee performance during digital transformation in educational institutions. Grounded in organizational citizenship behavior theory, we hypothesized that these factors positively influence employee performance, with affective commitment serving as a mediator. Data from 600 non-academic employees across multiple institutions undergoing digital transformation were collected and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Findings confirm that all three factors significantly affect employee performance, with perceived organizational support exerting the strongest direct influence ($\beta = 0.570$, $p < 0.001$). Additionally, affective commitment partially mediates the relationships between job satisfaction and performance, as well as perceived organizational support and performance. This study contributes to digital transformation literature by highlighting the critical role of employee-centered support mechanisms in technological change initiatives. For practitioners, it underscores the need to cultivate a supportive organizational culture, enhance job satisfaction, and foster emotional commitment to optimize employee performance during digital transformation.

Keywords: Digital Transformation; Digital Technologies; Employee Performance; Organizational Citizenship Behavior; Job Satisfaction; Perceived Organizational Support; Affective Commitment

1. Introduction

Digital transformation has become a strategic priority for modern organizations, fundamentally reshaping structures, processes, functions, and business models through the adoption of advanced digital technologies such as the Internet of Things (IoT), blockchain, artificial intelligence (AI), and machine learning (Matt et al., 2015; Sahu et al., 2018). To maximize the benefits of these technologies and ensure the success of digital transformation, organizations have implemented various standards and strategies (Matt et al., 2015; Verhoef et al., 2021). In this context, Rogers (2016: 308) emphasizes that digital transformation is, at its core, a strategic endeavor. He highlights the crucial role of senior leadership in driving innovation, reimagining business models, and enhancing customer experiences. While digital transformation is often perceived as primarily a technological shift, Rogers asserts that it is, in fact, deeply intertwined with strategy and leadership (Warner & Wäger, 2019). This perspective underscores the interconnectedness of technology, strategy, and leadership, reinforcing the importance of adopting a holistic and forward-thinking approach to digital transformation.

The existing literature on digital transformation primarily focuses on organizational frameworks and external forces, such as technology, and overlooking internal factors in this process (Cavalcanti et al., 2022; Cetindamar Kozanoglu & Abedin, 2021; Nadeem et al., 2018). In this context, Kane (2019) highlighted the lack of research on the human elements of digital transformation. He introduced the concept of the 'technological fallacy,' arguing that human and organizational factors are more critical to digital transformation success than technology itself. According to Kane, transformative technologies reshape work processes, making human factors essential for achieving organizational digital maturity (Kane, 2019). In the same vein, Carroll (2020) highlighted that the success of digital transformation hinges not only on technology but also on the individuals who adopt and utilize it, as well as on the cultural and organizational adaptations required for its implementation (Cavalcanti et al., 2022). Similarly, previous studies have explored the role of employees' skills and technological capabilities in helping staff members navigate the challenges of digital transformation within organizations (Cetindamar Kozanoglu & Abedin, 2021).

Westerman (2016) emphasized that 'digital transformation needs a heart,' urging managers to recognize that employees are the foundation of organizational success (Westerman, 2016). Consequently, understanding motivations that influence employees' behavior and performance is critical, as they serve as key drivers of successful digital transformation. To achieve this, organizations must prioritize employees' psychological factors (Cetindamar Kozanoglu & Abedin, 2021), which are integral to the success of the transformation process. These factors contribute by enhancing task performance, fostering adaptability, increasing engagement and productivity, and reducing resistance to change. Key psychological drivers include organizational citizenship behavior (OCBs), job satisfaction, and affective commitment elements that significantly impact work meaningfulness, operational efficiency, quality, employee retention, and turnover reduction. Additionally, existing research suggests that intrinsic motivation is more effective than extrinsic motivation when rewards are absent (Tranquillo & Stecker, 2016). Consequently, fostering intrinsically driven organizational citizenship behavior (OCB) could play a pivotal role in redefining the digital transformation landscape, enhancing employee engagement, adaptability, and innovation.

Based on the above discussion and the identified need for further research, this article aims to identify key factors that enhance employee performance, driving the success and sustainability of digital practices within organizations. Grounded primarily in organizational citizenship behavior (OCBs) theory, this study examines the impact of OCBs on effectiveness of employees' performance in digital transformation (EEPDT). When employees develop a strong commitment to ensuring the using, and adopting of transformative technologies, and when they act as stewards of that technologies, these actions exhibit OCB. While it is acknowledged that not all employees demonstrate or have the potential to demonstrate OCB in transformative technologies or other business areas, this perspective suggests that digital transformation interaction of employees can be seen as a suitable framework for

understanding OCB in many cases. Thus, factors that encourage organizational citizenship could hypothetically enhance interaction to use and adoption in transformative technologies. Therefore, the purpose of this paper is to explore the role of organizational citizenship behavior of employees in supporting digital transformation in organizations. This current study contributes to the digital transformations literature by providing empirical evidence that employees with a positive symbiotic relationship and a bonded citizenship relationship with the organization are more likely to exhibit higher levels in digital transformation performance. This mindset of stewardship fosters a mutually beneficial and cooperative relationship with the organization. In this scenario, employees do not experience detachment from the organization; instead, they feel a sense of responsibility and ownership.

2. Background and Literature Review

2.1. Digital Technologies and Transformation

Digital technologies encompass a collection "powerful, accessible, and potentially game-changing technologies like social, mobile, cloud, analytics, Internet of things, cognitive computing, and biometrics" (Ross, 2019). Research has demonstrated a wide-ranging and significant impact of digital technologies on organizations (Cetindamar Kozanoglu & Abedin, 2021; Vial, 2021; Warner & Wäger, 2019). For instance, Nambisan et al. (2017) highlight two critical dimensions: (1) products or services that incorporate features like flexibility, editability, openness, and transferability; and (2) production and innovation processes that are increasingly unpredictable and dynamic, often conducted through decentralized innovation networks (Cetindamar Kozanoglu & Abedin, 2021).

At its core, digital transformation is a continuous process of integrating new digital technologies into daily organizational operations (Warner & Wäger, 2019), including business, governance, and education. Previous studies identify three primary external factors compelling digital transformation. Firstly, since the inception and global adoption of the World Wide Web, a growing array of complementary technologies (such as broadband internet, smartphones, Web 2.0, SEO, cloud computing, speech recognition, online payment systems, and cryptocurrencies) have emerged, bolstering the advancement of e-commerce. Secondly, these new digital technologies have dramatically altered the competitive landscape. In sectors like retail, these technologies have disrupted traditional norms, transferring sales to relatively new digital companies. Thirdly, consumer behavior is evolving in response to the digital revolution. Market data shows a notable shift in consumer purchasing behavior towards online stores, with digital technologies playing a key role in the customer journey and influencing both online and offline sales (Verhoef et al., 2021).

In summary, digital technologies not only enable the development of highly complex products and services but also facilitate the transformation of simpler offerings into more sophisticated solutions. Therefore, organizations investing in digital technologies must equip their employees with the necessary skills, training, and support mechanisms to maximize the potential of these advancements.

2.2. Employees' Performance

According to Motowildo et al, (1997), job performance refers to the overall expected quality and value of an employee's work over a defined period. It comprises two key dimensions: contextual (citizenship) performance and task performance (Kahya, 2009). Contextual performance encompasses employees' discretionary efforts that extend beyond their primary job responsibilities but play a crucial role in fostering a supportive organizational, social, and psychological environment that enhances job functions and processes (Werner, 2000). In contrast, task performance involves the execution of job-specific duties that are formally recognized as part of an employee's role and contribute directly to organizational objectives (Borman & Motowidlo, 1993). Witt et al, (2002) suggest that contextual performance provides organizations with a greater competitive advantage than task performance.

Employee performance is shaped by multiple factors within the work environment. Researchers

and practitioners have identified several elements that influence workplace performance, including shifts in job roles, workplace exclusivity, advancements in systematic technology, and declines in job satisfaction (Saeed et al., 2013). These factors, whether individually or collectively, can either enhance or hinder employees' effectiveness in digital transformation (EEPDT). This study takes a distinctive approach to employee performance by building on existing literature on organizational citizenship behavior (OCB) and its impact on performance while expanding our understanding of digital transformation success.

2.3. Organizational Citizenship Behavior (OCBs) and EEPDT

Initially, organizational citizenship behaviors (OCBs) was defined by D.W. Organ (1988) as discretionary, extra-role activities that went beyond an individual's job duties and were typically unrewarded (D. W. Organ, 1988). However, about a decade later, Organ (1997) identified several limitations in this traditional definition, notably the ambiguity surrounding the terms "role" and "job." He argued that defining OCB strictly as extra-role behavior led to conceptual confusion. As a result, OCB was redefined more broadly to include behaviors that contribute to fostering a social and psychological environment that supports task performance (D. W. Organ, 2014, p. 91). In a similar vein, Borman and Motowidlo (1997) described contextual performance as the sustained enthusiasm and effort required to successfully complete one's tasks. This concept encompasses in-role achievements that employees actively pursue within a supportive psychological environment, akin to OCB (Borman & Motowidlo, 1997). Furthermore, in their meta-analysis, LePine et al. (2002) showed that the revised definition of OCB has evolved to align more closely with the concept of contextual performance than with the traditional notion of extra-role behavior (LePine et al., 2002).

To be considered as OCB in the workplace, several conditions must be met. Firstly, the employee's action must involve a certain level of personal choice or discretion (D. W. Organ, 1988). Additionally, the employee's compensation should not be directly linked to the performance of that action (D. W. Organ, 1990). OCB is characterized by an employee going beyond the basic expectations of behavior to support the organization (D. Organ et al., 2006; Podsakoff et al., 2010). Fundamentally, OCB can be divided into two categories: (1) helping others and (2) general compliance (Williams & Anderson, 1991). Helping refers to a type of OCB aimed at assisting individuals connected to the organization (D. Organ et al., 2006; Vedadi et al., 2024). This can include external parties like customers or vendors, where such assistance might enhance the organization's ability to sell products or secure materials.

Another form of OCB is known as general compliance (D. Organ et al., 2006; Vedadi et al., 2024). This type of OCB involves actions that benefit the organization as a whole. However, the term compliance in this context does not imply mere submissive obedience. Instead, it refers to a broad adherence to the underlying principles and rules that govern the organization. While employees are expected to follow these rules, there is an acknowledgment that some level of flexibility or deviation might occur, creating a space between strict obedience and formal reprimand (D. W. Organ, 1990; Podsakoff et al., 2010). General compliance is considered a type of OCB because it involves behaviors that go beyond what is simply acceptable (Vedadi et al., 2024), For instance, organizations might promote the regular updating of passwords but also overlook occasional tardiness or minor rule-breaking from generally good employees. Conversely, those who diligently follow the password-changing policy are viewed as exceptionally committed to the organization's well-being.

A variety of factors have been studied as antecedents to OCB. Many of these studies have utilized variations of Smith et al.'s foundational research on OCB (D. Organ et al., 2006; Vedadi et al., 2024). Organ and Ryan reviewed 55 studies and organized the diverse factors into a few main categories of attitudinal and dispositional (or personality trait) elements (D. W. Organ & Ryan, 1995). Job satisfaction is a key antecedent of OCB, with Organ et al. (2006) asserting that it is the most reliable measure of the general emotional and cognitive evaluation of the organization, showing a stronger link to OCB than to routine task performance (D. Organ et al., 2006).The meta-analysis by Organ and Ryan also identified other important factors, including affective commitment, which describes the level of emotional

connection and involvement employees have with their organization (D. W. Organ & Ryan, 1995; Vedadi et al., 2024), and perceived organizational support (or leader supportiveness), which is the extent to which employees feel that the organization appreciates their contributions and genuinely cares about their well-being (Eisenberger et al., 1986). The review of the OCB literature, with a focus on the dependent variable EEPDT, identified factors related to the employee-organization relationship rather than individual personality traits, emphasizing job satisfaction, perceived organizational support, and affective commitment.

A strong, and positive relationship can foster the processes that lead to high performance and participation in the digital transformation context, especially when viewed as a form of OCB that goes beyond mere engagement. This perspective helps to advance our understanding of EEPDT by framing it as a specific, contextualized type of OCB, suggesting that OCB involves more than just routine practice driven by fear of punishment.

2.4. Theoretical Determinants of Contextualized EEPDT

Drawing from a comprehensive analysis of the OCB literature, it is evident that job satisfaction, perceived organizational support, and affective commitment are significant antecedents that offer both explanatory and predictive insights for EEPDT dependent variable. By focusing on the organization's well-being, these factors drive employees to set aside their personal interests and show increased participation in digital transformation. The research framework and key constructs can be seen in (Figure 1).

2.4.1 Job Satisfaction

Job satisfaction is described as "the extent of how pleasurable or positive the emotional state resulting from the appraisal of one's job or job experiences is" (Ragu-Nathan et al., 2008, P 423). It has been established through theory and research that job satisfaction acts as a precursor to various organizational outcomes including work attendance, punctuality, intentions to stay with the organization, motivation to transfer knowledge, as well as intentions to leave the organization and actual turnover rates (Brown, 1996; Tett & Meyer, 1993). Research consistently shows that job satisfaction impacts work-related behaviors and outcomes (Iaffaldano & Muchinsky, 1985; Judge et al., 2001), and it is a reliable predictor of employee behavior in various situations (Judge et al., 2001; Wright & Bonett, 2007). A comprehensive review by (D. Organ et al., 2006) shows that there is a significant relationship between job satisfaction and job performance. Additionally, job satisfaction is important for effective participation, as previous research indicates that it accounts for a considerable portion of the variance in OCB (Vigoda-Gadot & Angert, 2007; Wright & Bonett, 2007; Currivan, 1999).

In the digital transformation context, it is reasonable to assert that job satisfaction impacts both employee performance and innovation. Why is this the case? employees who express positive emotions towards their job are generally more inclined to be deeply engaged with the company's digital initiatives and processes as well as innovation (demonstrating OCB). This increased performance stems from their commitment to broader organizational responsibilities, including those related to digital technologies and transformation (Hizam et al., 2023; Höyng & Lau, 2023). Therefore, it is proposed that:

H1. Job satisfaction will have a positive influence on EEPDT.

2.4.2 Perceived Organizational Support

Perceived organizational support (POS) is described as "the degree to which employees believe that the organization values their contribution and cares about their well-being" (Eisenberger et al., 1986, p. 501). POS has been discovered to have a positive correlation with OCB, especially when supervisors motivate employees to align with organizational objectives, which in turn enhances employees' focus on these goals (Peelle III, 2007). Reciprocity is a fundamental aspect of POS, as employees need to feel

confident that the organization will support them in exceeding job expectations, effectively performing their duties, and managing stressful situations (George et al., 1993; Reid et al., 2008). Previous research supports the link between POS and OCB (Eisenberger et al., 1990; Rhoades & Eisenberger, 2002). POS has been proven to be a contributor to OCB, (Currivan, 1999; Van Scotter et al., 2000). In addition, Randell et al. (1999) found a positive link between employees' perceptions of organizational support and their levels OCB in the workplace. (Randall et al., 1999). Therefore, it is proposed that:
H2. Perceived organizational support will have a positive influence on EEPDT.

2.4.3 Affective Commitment

Affective commitment (AC) is described as "an employee's emotional attachment to and involvement in an organization" (Meyer et al., 1993, p. 539). Blau's (1964) social exchange theory portrays affective commitment as employees' response to the organization's supportiveness (Blau, 2017; Rhoades & Eisenberger, 2002). Eisenberger et al. find that when employees perceive support, it builds trust that the organization will carry out its commitments by recognizing and rewarding their contributions (Eisenberger et al., 1990, p. 57). As a result, subsequent empirical studies have consistently shown that POS precedes affective commitment (Rhoades et al., 2001). This connection, in turn, influences OCB, which represents the final outcome of this exchange process (Johnson & Chang, 2006; Lavelle et al., 2007). Meyer and Allen view affective (emotional) commitment as a cornerstone of organizational commitment. They identify several factors contributing to affective commitment, such as organizational rewards, procedural justice, job satisfaction, and support from supervisors (Meyer & Allen, 1991, 1997). Employees who are affectively committed exhibit a strong sense of belonging and identification with the organization. This enhances their engagement in organizational activities, motivation to achieve organizational goals, and inclination to remain loyal to the organization (Vedadi et al., 2024). In the digital transformation context, it is reasonable to argue that committed employees are likely to perceive that adhering to digital transformation practices, as a form of OCB, can positively influence overall organisation's digital initiatives, processes and performance as a whole. Accordingly, it is proposed that:
H3. Affective commitment will have a positive influence on EEPDT

In addition, aside from being a direct influence in EEPDT, affective commitment could act as a mediator in the relationship between POS and EEPDT, as well as between job satisfaction and EEPDT. Earlier research suggests that affective commitment stems from prior emotional responses and has a direct link to behavioral outcomes (Tett & Meyer, 1993b). Therefore, it is proposed that:
H4a. Affective commitment will mediate the influence on EEPDT from job satisfaction.

H4b. Affective commitment will mediate the influence on EEPDT from perceived organizational support.

2.4.4 Research Framework

Building on the discussions above, the following research framework has been developed (Figure 1), which integrates key factors: job satisfaction, perceived organizational support, affective commitment, that influence the EEPDT of non-academic employees in the digital workplace.

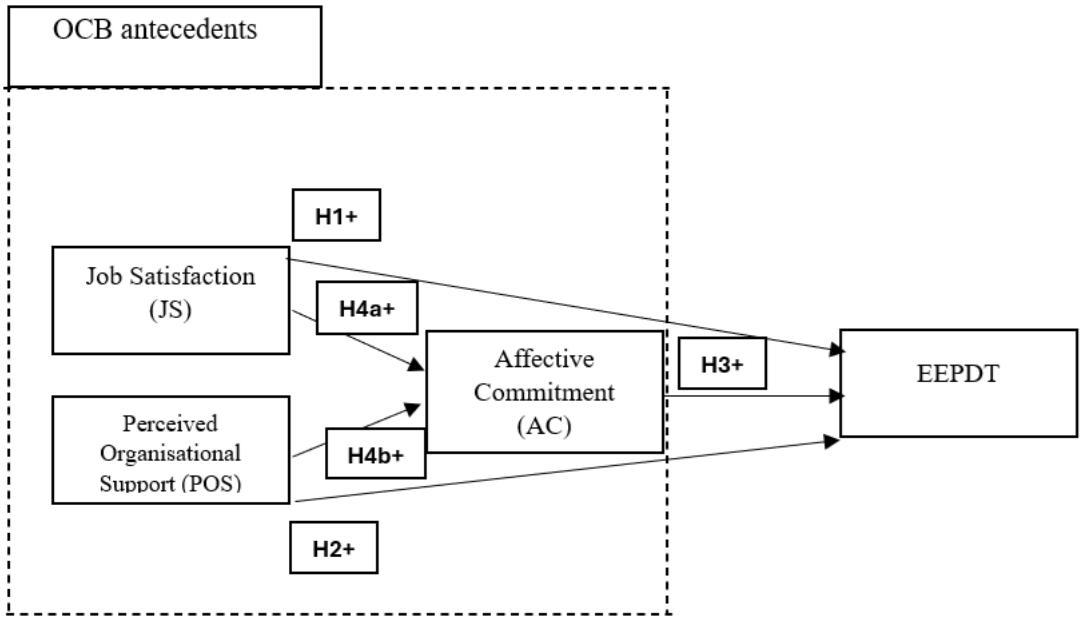

Fig.1: Research Framework

EEPDT: Effectiveness of employees' performance in digital transformation

3. Research Methodology

This study employed a quantitative research design to investigate the influence of job satisfaction, perceived organizational support, and affective commitment as antecedents of organizational citizenship behaviors (OCBs) on the effectiveness of employee performance within the context of digital transformation. The research methodology is detailed as follows:

3.1 Survey Instrument Design

A structured questionnaire was developed in English and translated into Arabic by a professional translator to accommodate the language needs of the targeted population. To ensure the accuracy and consistency of the translation, a back-translation was performed by a second independent professional translator. The questionnaire was subsequently refined through minor adjustments to preserve the original meaning of all measures across languages.

The questionnaire items were designed using Google Forms and administered online. The items for the key constructs were adapted and modified from existing literature to suit the digital transformation context, using validated scales, as outlined in Appendix A. Six scale items developed by Price and Mueller (1986) were used to measure job satisfaction (JS). Perceived organizational support (POS) was measured using eight scale items developed by Eisenberger et al. (2002). Affective commitment (AC) was measured using six reflective scale items developed by Meyer et al, (1993). Six scale items defined by Rodwell et al., (1998) were used to measure employee performance (EP). Each item was measured on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree."

3.2 Validation of Constructs

Experts reviewed the questionnaire to verify the constructs' validity and reliability. A group of specialists assessed the items' content validity to ensure they accurately represented the theoretical dimensions of the constructs. The construction validation was also enhanced by utilizing established measurement tools from previous research.

3.3 Target Population and Sampling

The research focuses on Saudi educational institutions' non-academic staff directly involved in digital transformation projects. A purposive sampling approach was employed to select participants based on specific criteria: individuals with at least one year of active involvement in digital transformation initiatives, holding administrative or technical positions with implementation responsibilities, and representing diverse institutional categories (public universities, private colleges, and technical institutes). Participants were recruited through formal invitation letters to institutional leadership, followed by direct outreach to digital transformation units and IT departments. This deliberate selection across varied institutional types and geographic regions throughout Saudi Arabia ensured comprehensive representation within the education sector. The sample size was determined according to structural equation modeling requirements, maintaining a minimum ratio of 10 participants per measurement item to ensure statistical validity and model stability.

3.4 Data Collection Procedure

The completed survey was sent online through institutional email lists to reach as many participants as possible. Participants were given information about the study's objectives and guaranteed that their responses would be confidential. Participation was optional, and confidentiality was ensured during the entire process.

3.5 Data Analysis Approach

This study's data analysis utilized Partial Least Squares Structural Equation Modeling (PLS-SEM), using SmartPLS 4 (Ringle et al., 2024), a suitable analytical method for investigating intricate relationships among reflective constructs. The assessment started by examining the measurement model to confirm that all constructs met the necessary criteria for reliability and validity. Convergent validity was confirmed by AVE scores surpassing the 0.5 threshold. The distinction between constructs was verified through both the Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT), establishing discriminant validity.

The structural model was analyzed following the measurement model assessment, focusing on key indicators such as path coefficients, R-squared values, and effect sizes (f^2). Bootstrapping with 5,000 resamples was conducted to generate t-values for hypothesis testing, which confirmed significant relationships among the variables. The results supported the proposed hypotheses (H1-H8), validating the study's conceptual framework.

4. Data Analysis and Results

Survey data from 600 respondents was analyzed, showing a varied demographic profile across different dimensions. Most individuals are female (around 65%), while males make up 34%. The largest group of respondents falls within the 26-35 age range (about 45%), with the next largest group being those aged 36-45 (25%), showing a workforce that is mostly young to middle-aged.

Survey data from 600 respondents was analyzed, showing a varied demographic profile across different dimensions. Gender distribution shows that 390 respondents (65.0%) are male, and 210 (35.0%) are female. Age distribution indicates that the majority of participants are between 26–35 years (270 respondents, 45.0%), followed by 36–45 years (150 respondents, 25.0%), with smaller proportions in the 18–25 (12.0%), 46–55 (13.0%), and 56+ (5.0%) age groups. These statistics reflect a workforce primarily composed of young to middle-aged employees engaged in digital transformation initiatives.

4.1 Measurement Model

The measurement model results provide a detailed explanation of the scale properties used in measurement. The Cronbach's alpha values for all constructs exceed 0.80, confirming strong internal

consistency. Composite reliability (rho_a and rho_c) consistently surpasses 0.80, ensuring construct reliability. The average variance extracted (AVE) values range from 0.578 to 0.663, demonstrating convergent validity. Furthermore, discriminant validity is confirmed using the Fornell-Larcker criterion, where the square root of AVE for each construct exceeds its correlations with other constructs, and cross-loadings indicate that each construct loads more strongly on itself than on others. These findings affirm the robustness of the measurement model, ensuring its appropriateness for structural model analysis. Table 1. shows the measurement model's high reliability and validity for all constructs and Table 2. shows discriminant validity.

Table 1: Reliability and validity for all constructs

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
Affective Commitment	0.818	0.831	0.872	0.578
Employee Performance	0.860	0.870	0.900	0.642
Job Satisfaction	0.897	0.901	0.921	0.663
Perceived Organizational Support	0.889	0.893	0.916	0.646

Table 2: Cross loading Fornell-Larcker criterion

	Affective Commitment	**Employee Performance**	**Job Satisfaction**	**Perceived Organizational Support**
Affective Commitment	0.760			
Employee Performance	0.895	0.801		
Job Satisfaction	0.917	0.925	0.814	
Perceived Organizational Support	0.910	0.940	0.951	0.804

4.2 Structural Model

Hypothesis testing results confirm significant relationships, with all T-values exceeding the critical threshold of 1.96 and p-values below 0.05, indicating statistical significance. The Standardized Root Mean Square Residual (SRMR) = 0.046, well within the acceptable range of <0.08, demonstrating a strong model fit. The Normed Fit Index (NFI) = 0.915 confirms an adequate fit, and the R^2 values of 0.612 for Affective Commitment and 0.573 for Employee Performance indicate that the independent variables explain a substantial proportion of variance in the dependent variables. Additionally, confidence intervals for direct effects were examined, ensuring robustness in hypothesis testing.

The structural model analysis highlights significant relationships among the key constructs. Affective Commitment positively influences Employee Performance ($\beta = 0.161$, $T = 3.034$, $p = 0.002$), suggesting that employees with higher affective commitment exhibit improved performance. Job Satisfaction has a strong and significant effect on Affective Commitment ($\beta = 0.538$, $T = 7.720$, $p < 0.001$) and a moderate impact on Employee Performance ($\beta = 0.235$, $T = 3.752$, $p < 0.001$), indicating

its dual role in enhancing both commitment and performance. Perceived Organizational Support significantly predicts Affective Commitment ($\beta = 0.398$, $T = 5.631$, $p < 0.001$) and Employee Performance ($\beta = 0.570$, $T = 8.652$, $p < 0.001$), underscoring the critical role of organizational support in fostering employee engagement and productivity. These results validate the proposed model, highlighting the interconnected roles of job satisfaction, affective commitment, and organizational support in driving employee performance. Figure 2 and Table 3 show the results.

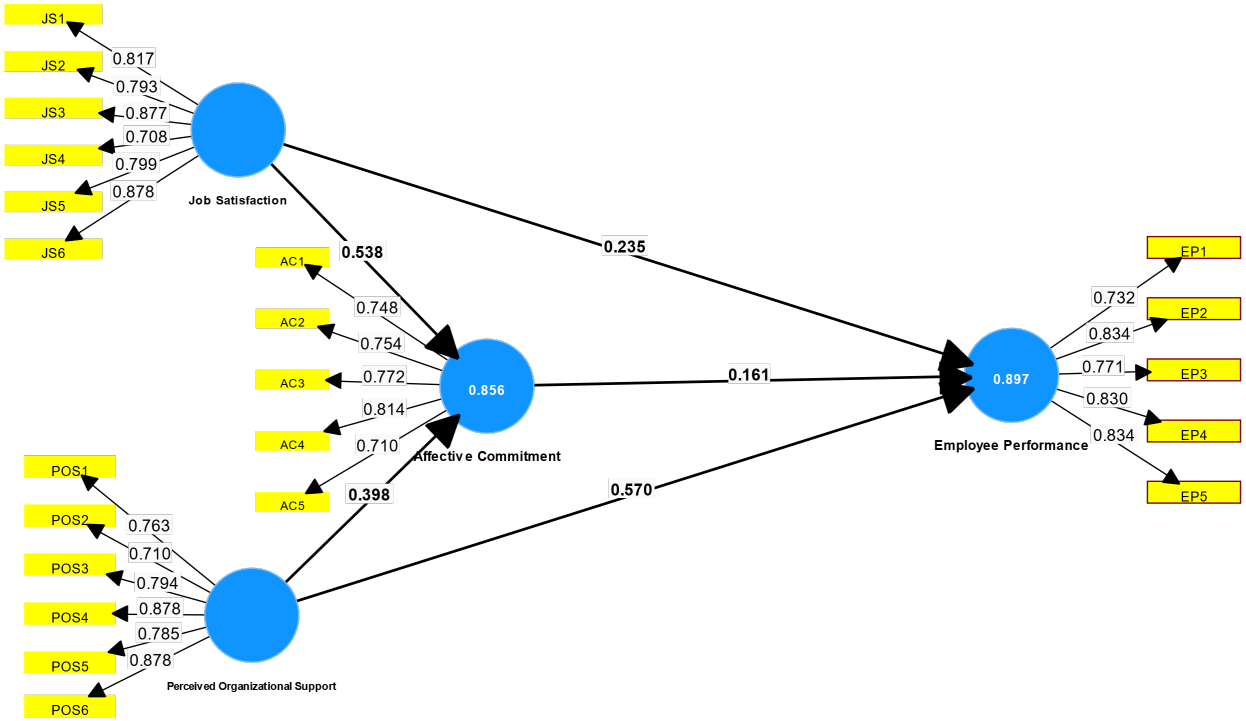

Fig.2: Path analysis

Table 3: Hypotheses results

		Sample mean	Standard deviation	T statistics	P values	Supported?
H1	**Affective Commitment -> Employee Performance**	0.162	0.053	3.034	0.002	Yes
H2	**Job Satisfaction -> Affective Commitment**	0.540	0.070	7.720	0.000	Yes
H3	**Job Satisfaction -> Employee Performance**	0.235	0.063	3.752	0.000	Yes
H4	**Perceived Organizational Support -> Affective Commitment**	0.397	0.071	5.631	0.000	Yes
H5	**Perceived Organizational Support -> Employee Performance**	0.568	0.066	8.652	0.000	Yes

- **Importance–Performance Map Analysis (IPMA)**

The IPMA extends SEM by evaluating both the importance and performance of key service attributes, providing actionable insights for improvement. First, IPMA was conducted to identify which specific elements of job satisfaction and organizational support most significantly impact affective commitment while also assessing their current performance levels within the sampled institutions. This analysis provides practical guidance for organizational interventions by highlighting high-impact areas that may require improvement. A second IPMA analysis was conducted with Employee Performance as the target construct to identify which specific indicators have the greatest impact on performance outcomes. This two-dimensional IPMA approach provides nuanced strategic insights for educational institutions involved in digital transformation. The analysis clearly identifies that while improving factors related to affective commitment may yield moderate benefits, focusing resources on enhancing specific elements of perceived organizational support—particularly those related to employee well-being, recognition, and valuation—would likely produce the most substantial improvements in employee performance outcomes.

- **IPMA indicators level (Affective Commitment as Target Construct)**

Figure 3 shows the Affective Commitment as the target construct, assessing key attributes related to Job Satisfaction (JS1-JS6) and Perceived Organizational Support (POS1-POS6). The distribution of attributes on the map ranges from importance values of 0.072 to 0.119, with performance scores falling between 60 and 80 points. JS1 showed the top performance (around 80) with a relatively high significance level (0.112), highlighting its essential role in delivering services. On the other hand, POS1 demonstrated decreased effectiveness (approximately 60) with a moderate level of significance (0.082), indicating areas that could be enhanced. Most characteristics fell within the mid-range for both importance (0.092-0.102) and performance (65-70), indicating a steady but modest level of service delivery. This distribution pattern indicates potential for focused enhancements, especially for highly significant features with lower effectiveness ratings, to enhance the overall quality of service and satisfaction levels among customers.

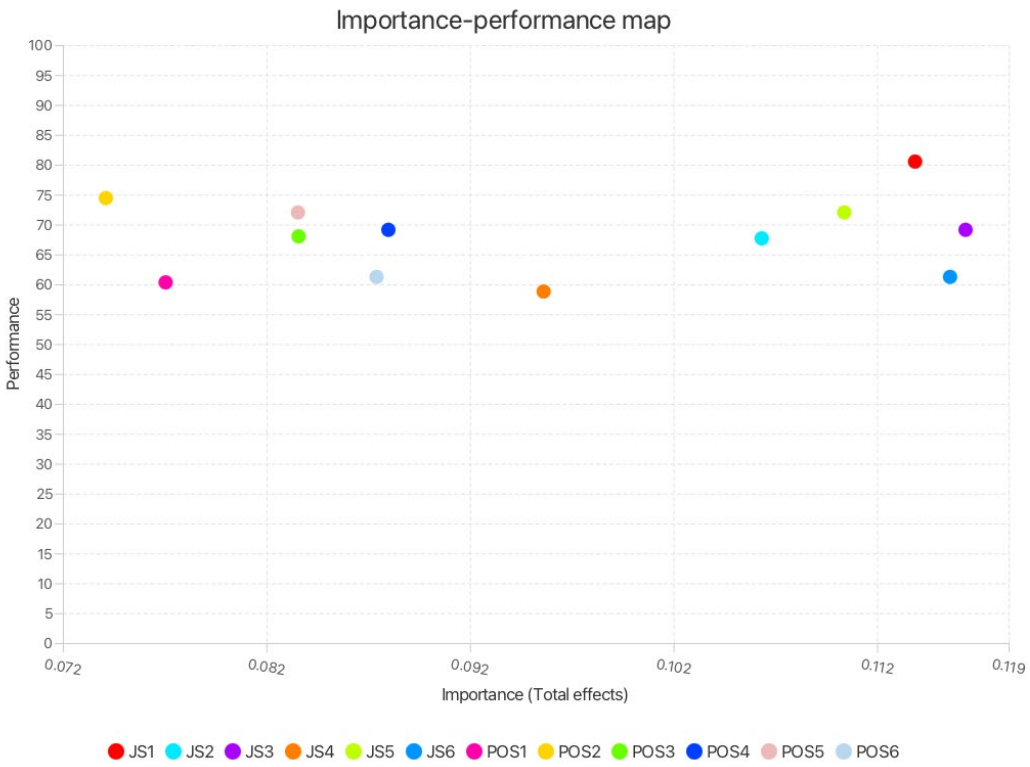

Fig.3: IPMA indicators level (Affective as Target Construct)

- **IPMA indicators level (Employee Performance as Target Construct)**

The IPMA analysis for Employee Performance as the target construct highlights key areas where improvements in performance could drive significant enhancements in workplace productivity. Figure 4 shows the map shows how performance scores (0-100) and importance values (0.032-0.146) are related for various variables under AC (AC1-AC5), JS (JS1-JS5), and POS (POS1-POS6) categories. The examination shows a dispersed arrangement of points, with most performance ratings clustering between 60 and 80 on the y-axis. The top score in performance (around 80) is linked to JS1, whereas lower scores (about 55-60) are seen for certain POS variables. Importance values exhibit significant diversity, with POS4-POS6 exhibiting higher importance (>0.13) despite average performance scores. AC variables typically exhibit lower importance values (0.032-0.052) and have different performance levels, whereas JS variables tend to fall in the middle range regarding importance and performance. This allocation hints at potential strategic focus areas, especially in variables of significant importance but with average performance ratings.

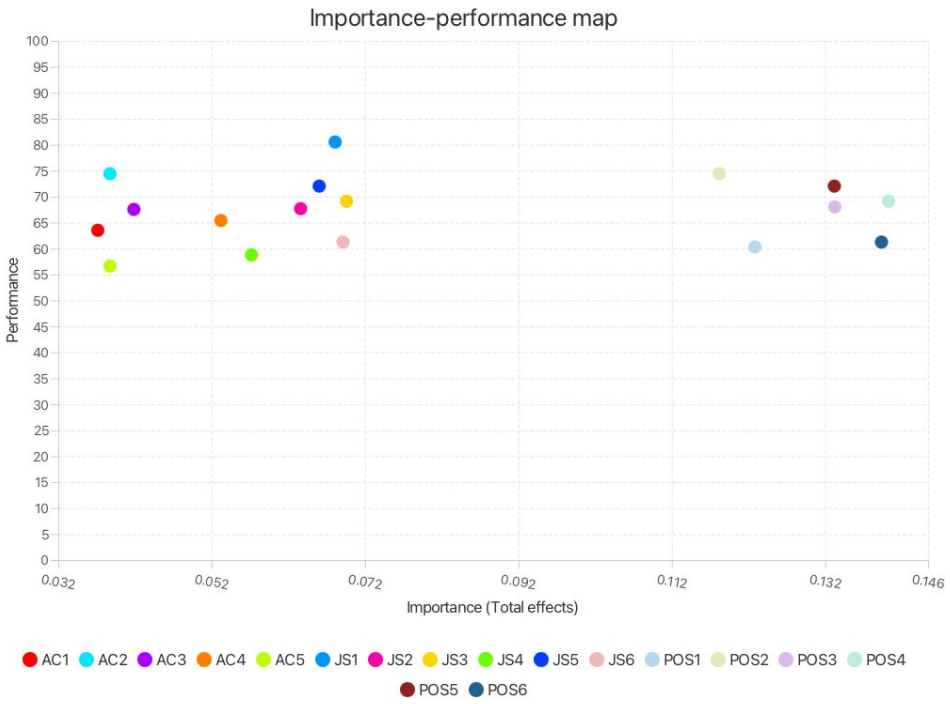

Fig.4: IPMA indicators level (Employee Performance as Target Construct)

5. Discussion and Implications

This study advances our understanding of employee performance in digital transformation contexts by examining the influence of key organizational support mechanisms. Our findings demonstrate that job satisfaction, perceived organizational support, and affective commitment all significantly contribute to employee performance during digital transformation initiatives, with organizational support showing the strongest direct effect. The mediating role of affective commitment highlights the importance of emotional attachment in translating workplace experiences into performance outcomes. These findings have important theoretical implications. First, they extend organizational citizenship behavior theory to the digital transformation context, showing how supportive organizational environments foster the commitment and performance needed for technological change. Second, they empirically validate the importance of human factors in digital transformation success, supporting Kane's (2019) assertion that technological change is fundamentally a human rather than purely technological challenge. Third, they reveal the complex interplay between cognitive evaluations (job satisfaction), contextual factors (organizational support), and emotional responses (affective commitment) in shaping employee performance. For practitioners, our research offers several actionable insights. Educational institutions implementing digital transformation should prioritize developing comprehensive support systems that demonstrate care for employee well-being and contributions. Leadership should focus on creating positive work experiences that enhance job satisfaction while actively building emotional commitment through inclusive practices and clear communication. Our IPMA analysis identified specific organizational support indicators with high importance but lower performance scores, suggesting targeted areas for management intervention. This study has limitations that should be addressed in future research. The cross-sectional design prevents causal inferences, suggesting the need for longitudinal studies to track how support mechanisms influence performance over time. Our focus on educational institutions in Saudi Arabia may limit generalizability to other sectors and cultural contexts. Future studies should explore these relationships in diverse organizational settings and examine additional factors that might influence digital transformation performance, such as leadership styles, organizational learning capabilities, and technology acceptance variables.

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Appendix A.

Instrument Items

1/ Job Satisfaction (JS): 6 items adapted from (Brayfield & Rothe, 1951; Price & Mueller, 1986; Vedadi et al., 2024)

Job Satisfaction (JS)	
JS1	I feel fairly well satisfied with my job
JS2	I find enjoyment in my job
JS3	Most of the time I have to force myself to go to work. ®
JS4	I am seldom bored with my job.
JS5	I would consider taking another kind of job. ®
JS6	Most days, I am enthusiastic about my job.

2/ Perceived Organizational Support (POS): eight items adapted from (Eisenberger et al., 2002)

Perceived Organizational Support (POS)	
POS1	The organization values my contribution to its well-being.
POS2	The organization fails to appreciate any extra effort from me. ®
POS3	The organization would ignore any complaint from me. ®
POS4	The organization really cares about my well-being
POS5	Even if I did the best job possible, the organization would fail to notice. ®
POS6	The organization cares about my general satisfaction at work.
POS7	The organization shows very little concern for me. ®
POS8	The organization takes pride in my accomplishments at work.

3/ Affective Commitment (AC): six items adapted from (Meyer et al., 1993)

Affective Commitment (AC)	
AC1	I would be very happy to spend the rest of my life career with this organization
AC2	I really feel as if this organization's problems are my own.
AC3	I do not feel a strong sense of "belonging" to my organization. ®
AC4	I do not feel "emotionally attached" to this organization. ®
AC5	I do not feel like "part of the family" at my organization. ®

AC6	This organization has a great deal of personal meaning to me.

4/ Employee Performance (EP): six items adapted from work performance of employee's scale (Baskaran et al., 2020; Rodwell et al., 1998)

Employee Performance (EP)	
EP1	I am currently working at my best performance level
EP2	I try to be at work as often as I can
EP3	I am one of the best at the work I do
EE4	I set very high standards for my work when I use digital technology
EE5	My work with digital technology is always of high quality
EE6	I am proud of my work performance when I use digital technology

(R) = Reverse Coded