

E-Leadership Competencies and Faculty Job Satisfaction in Jordanian Universities: Evidence from Faculties of Physical Education

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Abstract

This study aimed to determine the level of e-leadership competencies practiced by academic leaders in faculties of physical education at Jordanian universities, assess job satisfaction among faculty members, and examine the relationship between perceived e-leadership competencies and faculty job satisfaction. A quantitative descriptive correlational design was employed and data were collected from 133 faculty members using the Six E-Competency Scale (SEC) and Generic Job Satisfaction Scale (GJSS). Descriptive statistics, Pearson correlation and multiple regression analysis were conducted. The results showed that the participants had high levels of perceived e-leadership and job satisfaction. In terms of e-leadership dimensions, e-communication was the highest scored among the participants, followed by e-social and e-team competencies. All dimensions of e-leadership were positively and significantly related to job satisfaction. The regression analysis indicated that the six e-leadership competencies jointly explained 59.2% of the variance in faculty job satisfaction. However, only e-change and e-trust made significant contribution in the final model. The results highlight the relevance of e-leadership competencies to faculty job satisfaction by applying change management and building trust. Higher education institutions and physical education faculties in Jordan need to improve their e-leadership skills to address technological changes and help academic staff meet future challenges.

Keywords: e-leadership, job satisfaction, digital competency, physical education, Jordan universities

1. INTRODUCTION

Higher education institutions are experiencing a rapid digital transformation driven by advances in information and communication technologies (ICTs), changing educational demands, and the growing integration of digital systems into academic and administrative functions. Digital platforms have become fundamental components of institutional management processes (Fernández et al., 2023). This transformation has reshaped organizational processes and leadership practices within higher education institutions (Obied, 2025). Academic leaders are increasingly expected to facilitate adoption of technology and maintain effective communication in technology rich environments. These growing demands have contributed to the growing importance of e-leadership as an approach to leading organizations that operate in digitalized contexts (Jameson et al., 2022; Obied, 2025; Roman et al., 2019).

E-leadership, also referred to as digital leadership, extends leadership process into technology-mediated environments through the use of information and communication technologies to facilitate influence, communication, decision-making, organizational change, and the management of digital resources and infrastructure. Avolio et al. (2000) defined e-leadership as “a social influence process mediated by advanced information technology to produce change in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations” (p. 617). This definition emphasizes the significant role of technology in shaping leadership processes and affecting organizational outcomes.

Unlike traditional leadership models, which often rely on face-to-face interaction, e-leadership emphasizes the use of digital technologies to communicate with employees, coordinate work, share knowledge, and support collaboration in the workplace (Roman et al., 2019). Moreover, e-leadership does not replace traditional leadership, which has long been characterized by hierarchical structures and linear decision-making processes, but rather complements it by fostering leadership competencies aligned with the requirements of the digital era (Abbu et al., 2022; Raharjo et al., 2023).

As e-leadership continues to evolve, scholarly attention has increasingly shifted from the use of technology to the competencies required to lead effectively in technology-enabled contexts. Roman et al. (2019) proposed a competency-based model of e-leadership comprising six interrelated competencies: e-communication, e-social, e-team, e-change, e-tech, and e-trust. E-communication refers to the ability to communicate effectively and clearly through digital media. E-social concern the ability to promote positive relationships and collaboration in digital environments. E-change refers to the ability to manage change initiatives effectively through information and communication technologies (ICTs). E-team reflects the ability to lead, coordinate, motivate, and support teams in digital environments. E-tech refers to the ability to use digital technologies effectively and maintaining awareness of emerging technological developments and cybersecurity concerns. Finally, e-trust concerns the ability to build and maintain trust in digital work environments through fair, ethical and reliable digital interactions (Roman et al., 2019). These competencies suggest that e-leadership is a multidimensional construct that integrates technological, communication, interpersonal, and change management capabilities to support leadership in digitally enabled workplace.

Recent research has emphasized that contemporary leaders require technological knowledge and digital skills to communicate effectively, promote digital collaboration, and lead innovation in virtual environments (Ayun & Erlin, 2025). Therefore, e-leadership should not be understood simply as the ability to use digital tools, instead it should be viewed as the capacity to use technology strategically while maintaining effective human relationships and guiding organizational change (Van Wart et al., 2019).

The growing importance of e-leadership is particularly evident in higher education, where digital technologies increasingly mediate teaching, learning, research, administration, and communication. Universities have adopted digital platforms not only to deliver educational programs but also to coordinate institutional activities, facilitate access to knowledge, and support communication among faculty members. As a result, university leaders are required to manage increasingly complex digital environments while maintaining employee engagement and well-being.

Evidence from higher education contexts indicates that e-leadership is relevant to organizational and employee outcomes. For instance, Raharjo et al. (2023) examined e-leadership in a higher education institution and found that it played a role in the relationship between technology-related organizational factors and employee performance. Similarly, Ayun and Erlin (2025) reported a positive relationship between digital leadership and job satisfaction, with intrinsic motivation proposed as an explanatory mechanism. These findings indicate that the significance of e-leadership extends beyond the implementation of digital technologies. It may also influence employees' psychological and attitudinal experiences within digitally transformed organizations.

One particularly important employee outcome in this context is job satisfaction, which generally refers to the degree of contentment and positive feelings employees experience toward their work, reflecting how well their job fulfills their needs, expectations, and professional objectives (Baxi & Atre, 2024). This feeling of satisfaction is important for employees' well-being and organizational effectiveness, as satisfied employees tend to demonstrate greater commitment and loyalty to their organizations (Pinheiro & Palma-Moreira, 2025).

In higher education institutions, job satisfaction of faculty members is closely associated with aspects of the academic work environment, particularly professional autonomy, academic freedom, opportunities for professional development, and participation in decision-making. Evidence suggests that these conditions contribute to higher levels of job satisfaction and professional wellbeing among academics (Daumiller et al., 2026; Mgaiwa, 2021). At the same time, the increasing digitalization of universities may create new demands for faculty members, including continuous adoption of new technologies, increased digital communication, and adaptation to changing institutional expectations. These demands highlight the important role of leadership in helping faculty members manage technological change and adapt to digital transformation.

In Jordan, as in many other countries, higher education has undergone significant digital transformation in recent years. Jordanian universities and colleges have increasingly adopted digital technologies to support teaching, administrative processes, and communication, while also enhancing their organizational and technological capacities (Alomari, 2024a; Alsadi et al., 2024). This transformation has stimulated scholarly interest in e-leadership within Jordanian

universities, reflecting the growing importance of technology-mediated leadership in academic settings (Al-Amoush & Tarawneh, 2022). At the faculty level, however, the adoption of digital technologies has introduced new challenges related to technological infrastructure, difficulties associated with online interaction and collaboration, and the need for training and adaptation to electronic platforms (Alomari, 2024b).

These challenges may be especially relevant in faculties of physical education and sport sciences, where academic work combines theoretical instructions with practical skill development, and direct interaction with students. The integration of digital technologies has introduced new approaches to teaching, feedback, assessment, and professional learning, requiring faculty members to develop appropriate pedagogical and digital competencies to fulfill their responsibilities effectively (Murtagh et al., 2023; Østerlie et al., 2025). In this context, academic leaders are expected to facilitate the effective integration of technology and support faculty members to adapt to technological changes (Zhang & Chen, 2025). By fulfilling these responsibilities, leaders may influence faculty members' perceptions of their work environment, and consequently their level of job satisfaction.

Despite the growing academic interest in e-leadership and its relevance to employee outcomes, several gaps remain in the existing literature. Although previous studies have examined e-leadership in higher education and other organizational settings, empirical evidence regarding its relationship with faculty job satisfaction in Jordanian universities remains limited. Moreover, few studies have specifically explored this relationship within faculties of physical education, despite the distinctive nature of their academic work, which combines theoretical Knowledge with practical skill development and athletic performance. In addition, much of the existing research has examined e-leadership as a general construct, providing limited evidence regarding the relative contribution of its individual competencies to faculty job satisfaction (Abu Hussein et al., 2024; Melhem & Al-Yakoub, 2023). Examining the six e-leadership competencies may provide a more precise understanding of the specific leadership capabilities that are most relevant to employees' work attitudes in digitally mediated academic environments. This issue is particularly important in Jordanian universities, where leaders are required to support academics during continuing technological and organizational change.

Addressing these gaps has both theoretical and practical significance. From a theoretical perspective, examining the six e-leadership competencies separately may provide a better understanding of how technology-mediated leadership relates to employees work attitudes. From a practical perspective, identifying the competencies most significantly associated with faculty members' job satisfaction may help universities design targeted leadership programs that support faculty well-being during digital transformation. Accordingly, this study examines the relationship between e-leadership and job satisfaction among faculty members in the faculties of physical education at Jordanian public universities with a particular focus on the six e-leadership competencies identified by Roman et al. (2019). Specifically, the study aims to (1) determine the level of e-leadership competencies demonstrated by academic leaders in faculties of physical education in Jordanian universities, (2) determine the level of job satisfaction among faculty members, (3) examine the relationship between perceived e-leadership competencies and faculty members' job satisfaction, and (4) determine the predictive contribution of the six e-leadership competencies to faculty members' job satisfaction.

The present study contributes to the literature in several ways. First, it extends research on e-leadership to a less investigated context by focusing on faculties of physical education at Jordanian universities. Second, it employs the multidimensional framework developed by Roman et al. (2019) moving beyond a general assessment of e-leadership to examine the specific competencies of e-communication, e-social, e-team, e-change, e-tech, and e-trust. Third, by identifying the dimensions that significantly predict faculty job satisfaction, the current study offers practical evidence to help university leaders prioritize leadership development and digital transformation initiatives.

Research Questions

- 1- What is the level of perceived e-leadership competencies demonstrated by academic leaders in faculties of physical education at Jordanian universities?
- 2- What is the level of job satisfaction among faculty members in faculties of physical education at Jordanian universities?
- 3- Is there a statistically significant relationship between perceived e-leadership competencies and faculty members job satisfaction?
- 4- To what extent do the six dimensions of e-leadership statistically predict faculty members job satisfaction?

2. METHODOLOGY

2.1. Participants and Design

The study employed a quantitative, cross-sectional, descriptive correlational design. The population of the study consisted of Jordanian faculty members working in the faculties of physical education and sport sciences at the five public universities in Jordan that offer programs in physical education: Yarmouk University, The Hashemite University, Al al-Bayt University, Mutah University, and The University of Jordan.

Given the relatively small and accessible population, a census invitation approach was used, whereby all faculty members were invited to participate. The questionnaire was distributed electronically via google forms using official e-mails and WhatsApp. Of the 160 questionnaires distributed, 133 valid responses were obtained, resulting in 83.1% response rate. Table (1) show the demographic characteristics of the participants.

The study was conducted in accordance with the ethical standards governing research involving human participants and received formal approval from the Research Ethics Committee at Ajloun University before starting data collection. The participants were informed about the purpose and procedures of the study, and were assured that participation was voluntary. They were also informed that all information provided would be treated with strict confidentiality, and would be used for scientific research purposes only. In addition, they were informed of their right to participate or withdraw from the study at any time without any consequences.

Table 1: Demographic characteristics of the participants (N = 133)

Variable	Category	Frequency	Percent (%)
Gender	Male	105	78.9
	Female	28	21.1
Experience	Less than 5 years	25	18.8

	5-10 years	25	18.8
	More than 10 years	83	62.4
Education qualification	Ph.D.	110	82.7
	M.A.	23	17.3
University	Hashemite University	21	15.8
	Yarmouk University	37	27.8
	University of Jordan	33	24.8
	Al al-Bayt University	13	9.8
	Mutah University	29	21.8

2.2. Research Instrument

Data were collected using a three-part survey comprising the Six E-Competency Scale (SEC; Roman et al., 2019), the Generic Job Satisfaction Scale (GJSS; Macdonald & MacIntyre, 1997), and a demographic data sheet.

- *E-leadership*

E-leadership was measured using the SEC, which comprises 18 items across six dimensions: e-communication, e-social, e-team, e-change, e-tech, and e-trust. The SEC is a valid and reliable instrument and demonstrated significant construct validity and internal consistency in earlier research (Roman et al., 2019; Van Wart et al., 2019). Responses were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating greater e-leadership competency.

- *Job satisfaction*

Job satisfaction was assessed using the GJSS, which comprises 10 items covering various aspects, including recognition, job security, and workplace relationships. Responses were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher mean scores indicating higher levels of job satisfaction. Previous research has established the scale construct validity and acceptable internal consistency, with Cronbach's alpha coefficient of 0.77, supporting its use as a reliable and valid measure of overall job satisfaction.

2.3. Translation of Surveys

The surveys were translated into Arabic using a three-step translation protocol adapted from Fenn et al. (2020). First, the surveys were translated from English into Arabic by two professional bilingual translators. Second, two independent scholars back-translated the Arabic version into English. Finally, a panel of proficient scholars fluent in English and Arabic reviewed and evaluated both the original and the back-translated versions to ensure translation accuracy and equivalence.

Following the translation process, the Arabic version was pilot tested with a sample of 30 academic members to assess content clarity and usability. The results indicated that no major modifications were required.

2.4. Criteria for interpreting the levels of e-leadership and job satisfaction.

Mean score were interpreted using a 5-point Likert scale to determine the levels of perceived e-leadership and faculty job satisfaction. The classification interval was calculated by subtracting the minimum scale value from the maximum scale value and dividing the result by the number of response categories: $(5-1)/5=0.8$. Thus, mean scores of 1-1.80 were interpreted as very low, 1.81-2.60 as low, 2.61-3.40 as moderate, 3.41-4.20 as high, and 4.21-5 as very

high. Higher mean scores indicated higher levels of e-leadership competencies and faculty job satisfaction.

2.5. Data Analysis

Data analysis was conducted using SPSS version 26. Descriptive statistics including means and standard deviations were calculated to summarize the study variables. Pearson's correlation coefficients were computed to examine the relationship between e-leadership and job satisfaction. Multiple regression analysis was then conducted to determine the extent to which e-leadership and its dimensions predict job satisfaction. The internal consistency of the study instruments was assessed using Cronbach's alpha coefficients.

3. RESULTS

Reliability of the scales

As a first step in the analysis, Cronbach's alpha coefficients were calculated to assess the reliability of the translated study instruments. The results presented in Table 2 show that Cronbach's alpha coefficients for the SEC subscales ranged from .787 to .906. The GJSS also demonstrated a high level of internal consistency, with a Cronbach's alpha coefficient of .907. All coefficients exceeded the 0.70 threshold recommended by Nunnally and Bernstein (1994), indicating that the translated instruments were suitable for further statistical analysis.

Table 2. Cronbach alpha reliability coefficients for the translated surveys of SEC and GJSS

Measure	No. of Items	Alpha
Six E-Competency (SEC)		
E-communication	3	.787
E-social	3	.814
E-team	3	.888
E-change	3	.854
E-tech	3	.859
E-trust	3	.906
Generic Job Satisfaction Scale (GJSS)	10	.907

Note. SEC = Six E-Competency Scale; GJSS = Generic Job Satisfaction Scale.

The findings in Table 3 show that faculty members perceived leadership among their academic leaders positively. The overall mean score of 4.03 (SD = 0.63) indicates a positive evaluation of their leaders' e-leadership competencies. Among the dimensions of e-leadership, e-communication ranked first with a mean score (M = 4.11, SD = 0.65), followed by e-social (M = 4.08, SD = 0.69) and e-team (M = 4.07, SD = 0.76). E-trust and e-change both recorded a mean of 3.98 with standard deviations of 0.70 and 0.77 respectively. E-tech ranked last with a mean score of 3.97 and a standard deviation of 0.80. Although the dimensions differed in ranking, all e-leadership dimensions recorded high mean scores.

With regard to faculty job satisfaction, Table 3 shows that faculty members reported a high level of job satisfaction with a mean score of 3.93 and a standard deviation of 0.71.

Table 3. Faculty perceptions of academic leaders' e-leadership and their levels of job satisfaction.

Dimension	N	Minimum	Maximum	Mean	Std. Deviation
E-communication	133	2.00	5.00	4.11	.65
E-social	133	2.00	5.00	4.08	.69
E-team	133	1.00	5.00	4.07	.76
E-trust	133	1.33	5.00	3.98	.70
E-change	133	1.00	5.00	3.98	.77
E-tech	133	1.00	5.00	3.97	.80
Total e-leadership	133	1.94	5.00	4.03	.63
Job satisfaction	133	1.80	5.00	3.93	.71

Note. Scores were measured on a 5-point Likert scale, where higher scores indicate stronger perceived e-leadership competencies or higher job satisfaction.

To examine the proposed relationship between e-leadership and faculty job satisfaction, Pearson Product-Moment Correlation coefficients (PPMC) were calculated. The results presented in Table 4 show that all dimensions of e-leadership were positively and significantly correlated with job satisfaction at $p < .01$ level. The correlations coefficients ranged from $r = 0.517$ to $r = 0.723$.

Table 4. Correlations between perceived e-leadership and faculty job satisfaction

Dimension	Satisfaction	E-communication	E-social	E-team	E-trust	E-tech	E-change
Satisfaction	1.000						
E-communication	.517**	1.000					
E-social	.622**	.630**	1.000				
E-team	.641**	.554**	.772**	1.000			
E-trust	.699**	.644**	.739**	.728**	1.000		
E-tech	.643**	.548**	.717**	.743**	.723**	1.000	
E-change	.723**	.612**	.676**	.703**	.721**	.719**	1.000

Note. ** Correlation is significant at the 0.01 level (two-tailed).

To further examine the unique contributions of the six e-leadership competencies to faculty job satisfaction, a multiple regression linear analysis was conducted using the “enter method”. Job satisfaction was entered as the dependent variable, while the six competencies of e-leadership (e-change, e-trust, e- communication, e-social, e-team, and e-tech) entered as potential predictors.

Before conducting the regression analysis, the assumptions of multiple linear regression were examined. The results indicated that the assumption of independence of errors was satisfied, as the value of Durbin-Watson was 2.086, which falls within the acceptable range of 1.5 to 2.5. Multicollinearity was assessed using Tolerance and variance inflation factor (VIF). As shown in Table 5, all Tolerance values exceeded the threshold of 0.10 and all VIF values were below 10, indicating the absence of multicollinearity among the independent variables. Moreover, standardized residuals ranged from -2.872 to 2.089, remaining with the acceptable limits of ± 3 , suggesting the absence of extreme outliers. Visual inspection of histogram, P-P plot, and scatter plot of standardized residuals showed that residuals were approximately

normally distributed and exhibited a constant variance across the predicted values (Field, 2018; Tabachnick et al., 2019).

Table 5. Multiple regression analysis predicting faculty job satisfaction from e-leadership competencies.

Predictor	B	SE	β	t	p	95% CI	Tolerance	VIF
Constant	.688	.281	--	2.447	.016	[.132 - 1.244]	--	--
E-communication	-.023	.088	-.021	-.257	.798	[-.198 - .152]	.496	2.015
E-social	.105	.105	.101	1.000	.319	[-.102 - .311]	.317	3.153
E-team	.003	.107	.003	.027	.979	[-.210 - .216]	.247	4.055
E-trust	.322	.131	.316	2.449	.016	[.062 - .582]	.194	5.159
E-tech	.009	.097	.011	.097	.923	[-.183 - .202]	.274	3.653
E-change	.396	.086	.430	4.622	.000	[.226 - .566]	.375	2.669

Model statistics: $R = 0.770$, $R^2 = 0.592$, adjusted $R^2 = 0.573$, $F(6, 126) = 30.518$, $p < .001$, Durbin-Watson = 2.086.

Note. dependent variable = faculty job satisfaction; predictors were entered using the enter method; B = unstandardized coefficients; SE = standard error; β = standardized coefficients; CI = confidence interval; VIF = variance inflation factor.

The results presented in Table 5 show that all six dimension of e-leadership jointly explained a statistically significant portion of the variance in faculty job satisfaction. The overall regression model was statistically significant ($F(6, 126) = 30.518$, $p < .001$). The multiple correlation coefficient was $R = 0.77$, indicating a strong positive relationship between the predictor variables and faculty job satisfaction. The coefficient of determination $R^2 = 0.592$ indicating that the six e-leadership competencies jointly explained 59.2% of the variance in faculty job satisfaction.

Examining the competencies of e-leadership individually showed that e-change was the strongest significant predictor of job satisfaction ($\beta = 0.430$, $t = 4.622$, $p < .001$), followed by e-trust ($\beta = 0.316$, $t = 2.449$, $p = .016$). The other four dimensions of e-leadership; e-communication, e-social, e-team, and e-tech despite being positively correlated with job satisfaction, their standardized regression coefficients were not statistically significant when all dimensions of e-leadership were entered together into the regression model. The results revealed non-significant contributions for e-communication ($\beta = -0.021$, $t = -0.257$, $p = 0.798$), e-social ($\beta = 0.101$, $t = 1.00$, $p = 0.319$), e-team ($\beta = 0.003$, $t = 0.027$, $p = 0.979$), and e-tech ($\beta = 0.011$, $t = 0.097$, $p = 0.923$).

4. DISCUSSION

This study examined the relationship between e-leadership and job satisfaction among faculty members in faculties of physical education and sports sciences at Jordanian universities. It focused on the six e-leadership competencies identified by Roman et al. (2019), assessed faculty members' level of job satisfaction, and examined the relationship between e-leadership and faculty job satisfaction. The results showed that faculty members perceived a high level of e-leadership among university leaders and reported high levels of job satisfaction. All six e-leadership competencies were positively and significantly associated with job satisfaction at the

bivariate level, while e-change and e-trust were the two competencies that made significant contributions to job satisfaction in the final regression model.

Level of E-Leadership Competencies

The results showed that faculty members perceived a high overall level of e-leadership among their academic leaders ($M = 4.03$). This result indicates that, from the faculty members' perspectives, academic leaders were generally perceived as demonstrating effective e-leadership competencies in technology mediated academic environments. The result is consistent with the growing use of digital technologies in higher education and with the conceptualization of e-leadership as a multidimensional construct that extends beyond the use of digital tools to include communication, social interaction, teamwork, change management, technological competencies, and trust (Roman et al., 2019).

Among the six competencies, e-communication recorded the highest mean score ($M = 4.11$). This may be related to the extent to which electronic communication has become part of everyday university administration. Academic leaders routinely use email and other electronic channels to facilitate communication, share information with faculty, students, and staff, coordinate academic activities, and support decision-making processes. Because these activities are highly visible in the daily work of faculty members, e-communication may be the aspect of e-leadership they experience most frequently. This finding is consistent with Roman et al. (2019), who identified e-communication as a central competency for effective leadership in digitally mediated environments.

The relatively high scores for e-social ($M = 4.08$) and e-team ($M = 4.07$) also indicate that faculty members perceived their academic leaders as capable of maintaining social interaction and supporting collaborative work through digital environments. These competencies may be particularly relevant in universities, where faculty members work together through departments and administrative units. This finding agrees with Van Wart et al. (2019), who emphasized the importance of digital competencies in coordinating and supporting teams. It also aligns with Al-Amoush and Tarawneh (2022), who highlighted communication and social interactions as important factors in supporting motivation and teamwork within Jordanian higher education institutions.

Although all six competencies were rated at a high level, e-change recorded a comparatively lower mean score ($M = 3.98$). This result deserves attention because managing change is an important component of e-leadership in institutions that are experiencing ongoing digital transformation. One possible explanation is that routine digital communication and online collaboration may be more established practices within universities than the broader process of leading organizational change that accompany digital transformation. This result aligns with Van Wart et al. (2019) who identified e-change management as a core competency of e-leadership, and with Ongena et al. (2024) who emphasized the importance of digital leadership competencies in supporting organizational digital transformation.

E-tech recorded lowest mean score ($M = 3.97$) followed closely by e-trust ($M = 3.98$). Both competencies were still within the high category, but their lower relative rankings may suggest that technological expertise and building e-trust in the digitally mediated environments are more challenging aspects of e-leadership than routine digital communication. This result is noteworthy because effective e-leadership requires leaders to understand and use existing

technologies while also keeping pace with emerging developments and creating an environment in which faculty members feel confident communicating and working through digital platform systems. Previous research has also identified trust, digital interaction, and technology-enabled work environments as potential challenges for leaders (Ahmed et al., 2022; Lopez-Figueroa et al., 2025). Maheshwari et al. (2025) further emphasized the importance of trust in context where opportunities for direct face-to-face interaction are limited.

Faculty Job Satisfaction

The findings also showed that faculty members reported a high level of job satisfaction ($M = 3.93$), indicating positive perceptions of their work environment and professional experience. This finding is broadly consistent with previous research linking job satisfaction to factors such as professional autonomy, academic freedom, teamwork, supervision, and favorable working conditions can contribute to faculty job satisfaction (Bataineh, 2014; Dara, 2023; Mgaiwa, 2021).

One possible explanation for the relatively high level of satisfaction may relate to the characteristics of academic work. Faculty members generally have some degree of autonomy in teaching, research, and community service, allowing them to exercise professional judgment in their daily work. This autonomy may strengthen their sense of professional purpose and fulfillment. Previous studies have reported positive relationships between academic freedom, job autonomy, and faculty job satisfaction (Bataineh, 2014; Dara, 2023; Mgaiwa, 2021). The academic profession may also provide opportunities to contribute to knowledge and society, which can increase the perceived meaning of one's work (Chen, 2023).

The broader work environment may also contribute to faculty job satisfaction. Previous research has identified both the social and physical characteristics of workplace as factors associated with employees' satisfaction and well-being (Al-Mobideen, 2023; Rwayshed, 2021). In addition, the professional status associated with university employment may contribute to positive work attitudes among faculty members as suggested by Shin and Jung (2014).

These explanations should, however, be interpreted with caution. The present study did not directly measure academic freedom, autonomy, professional status, or working conditions. Therefore, these factors cannot be considered empirically established explanations for the high level of job satisfaction found in the study. They are better understood as possible contextual interpretations supported by previous research. Future studies could examine these factors directly to assess their relative contribution to faculty job satisfaction in Jordanian universities.

Relationship Between E-Leadership and Faculty Job Satisfaction

A central finding of the study was the positive and statistically significant relationship between perceived e-leadership and faculty job satisfaction. The overall e-leadership score was strongly and positively correlated with job satisfaction ($r = .744$, $p < .01$). Each of the six e-leadership competencies was also significantly and positively correlated with job satisfaction, with correlation coefficients ranging from $r = .517$ to $r = .723$. These findings indicate that faculty members who perceived higher levels of e-leadership also tended to report higher levels of job satisfaction.

The fact that all six competencies were positively associated with job satisfaction supports the multidimensional nature of e-leadership. The relationship was not limited to one particular aspect of e-leadership. Instead, e-communication, e-social interaction, e-teamwork, e-technological competencies, e-change management, and e-trust were all related to how faculty members viewed their work experience.

This finding is broadly consistent with earlier research reporting positive relationships between e-leadership and job satisfaction in organizational and educational settings (Ayun & Erlin, 2025; Almutlaq, 2024; Al-Zaareer, 2024; Adeoye et al., 2023; Sunaryo et al., 2023; Tanucan et al., 2022). The results are also in line with Gouda (2024), who found that digital leadership was positively correlated with job satisfaction through communication and the opportunities for professional development supported by digital technologies. Ahmed et al. (2022) likewise reported positive relationships between digital leadership, job satisfaction, and organizational behavior. In educational settings, Tanucan et al. (2022) found that principals' e-leadership predicted teachers' satisfaction, while Al-Zaareer (2024) reported a positive relationship between principals' digital leadership practices and teachers' job satisfaction in Jordan. Overall, these findings indicate that leadership practices adapted to digital mediated work environments are relevant to employees' perceptions of their work experience.

The present findings should be interpreted in terms of association and statistical prediction rather than causation. The study used a cross sectional descriptive correlational design, so it cannot establish that e-leadership causes higher job satisfaction. The relationship may operate in both directions, or other organizational factors may influence perceptions of both leadership and satisfaction.

Discussion of The Regression Findings

The regression results revealed that e-leadership competencies collectively explained a significant percentage of the variance in faculty job satisfaction ($R^2 = 0.592$), indicating that e-leadership is strongly associated with members' job satisfaction. This result is consistent with previous studies that reported positive relationships between e-leadership and job satisfaction across educational and organizational contexts (Ayun & Erlin, 2025; Raharjo et al., 2023; Maheshwari et al., 2025). It also supports the view that effective e-leadership helps employees adapt to technological change and enhances workplace outcomes (Jameson et al., 2022; Lopez-Figueroa et al., 2025).

Among the six e-leadership competencies, e-change emerged as a significant predictor of faculty job satisfaction and had the largest standardized regression coefficient ($\beta = .430$, $p < .001$). This result indicates that the ability of academic leaders to facilitate and manage digital transformation is pertinent to faculty members' job satisfaction.

In the academic environments, faculty members may experience frequent changes in technological systems. Therefore, academic leaders who support faculty members during these transitions are more likely to promote positive work environment which in turn contribute to higher levels of job satisfaction. This finding is consistent with Ahmed et al. (2022), Maheshwari et al. (2025), and Al-Zaareer (2024) who indicated that change oriented e-leadership positively affects employee attitudes and organizational outcomes. This result also aligns with the conceptualization of e-leadership proposed by Roman et al. (2019) and Van Wart et al. (2019), which identifies e-change as a core competency required for leading

effectively in technology mediated environments. Within Jordanian public universities, where digital transformation has accelerated in recent years, faculty members may perceive effective change management as essential for maintaining stability and professional effectiveness.

The results further showed that e-trust made a statistically significant contribution to faculty job satisfaction ($\beta = .316$, $p = .016$). This result suggests that faculty members are more satisfied when their academic leaders demonstrate fairness, and reliability in digitally mediated interactions. In virtual and technology supported environments, where direct interpersonal interactions are often reduced, trust and confidence in leadership become important. This result is consistent with Ahmed et al. (2022), who identified e-trust as one of the strongest predictors of positive employee outcomes. It also supports the argument of Abbu et al. (2022) that successful e-leadership depends primarily on building trust rather than relying solely on technological competence. Similarly, Jameson et al. (2022) emphasized that trust remains a central factor in effective leadership and organizational functioning within higher education institutions.

The remaining competencies, e-communication, e-social, e-team and e-tech, were positively and significantly correlated with job satisfaction at the bivariate level but did not make significant contributions in the full regression model. This result does not decrease their importance. Instead, it suggests that their contribution to faculty job satisfaction is shared with other e-leadership competencies, making their unique effects less evident when all dimensions of e-leadership are considered concurrently.

Given the multidimensional nature of e-leadership, competencies such as e-communication, e-social, e-team, and e-tech are likely to function interdependently rather than as independent predictors. Thus, their contribution to job satisfaction may be indirect or jointly expressed through other leadership competencies that emerged as significant predictors in the regression analysis. This interpretation is consistent with Roman et al. (2019) and Van Wart et al. (2019), who argued that e-leadership competencies are highly interrelated and should be viewed as complementary rather than entirely independent dimensions. It is also supported by studies indicating that faculty satisfaction is influenced more strongly by organizational support, leadership quality and workplace climate than by routine communication or technology related practices alone (Chen, 2023; Dara, 2023).

5. CONCLUSION

This study examined the relationship between e-leadership competencies and faculty members' job satisfaction in faculties of physical education at Jordanian public universities. The results revealed a positive and significant relationship between perceived e-leadership and faculty job satisfaction. All six e-leadership competencies were positively and significantly correlated with faculty job satisfaction. The results suggest that faculty members who perceived higher levels of e-leadership competencies reported higher levels of job satisfaction.

The multiple regression analysis further indicated that e-change and e-trust competencies emerged as significant predictors of faculty job satisfaction. These results suggest that while all e-leadership competencies contribute to a supportive work environment, faculty members' satisfaction was particularly associated with leaders' ability to manage digital transformation and cultivate trust within technology mediated academic environments. Therefore, strengthening competencies related to e-change and trust building may be important areas for

leadership development initiatives aimed at supporting faculty job satisfaction in universities undergoing digital transformation.

6. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

First, the study was limited to academic faculty members working in faculties of physical education and sport sciences at five public universities in Jordan. As a result, the findings may not generalize to private universities or colleges, which often differ in leadership structures and resource availability. Future research should include a broader and more diverse samples across public and private universities and colleges to enhance the generalizability and enable comparisons between different academic disciplines.

Second, the cross-sectional design of this study limits the ability to draw causal conclusions. As the data were collected at a single point in time, the study cannot capture the direction of causality or how the relationship may evolve as e-leadership practices mature within institutions. Future research should consider longitudinal or intervention-based designs to better establish causal pathways and to observe how changes in e-leadership practices influence job satisfaction over time.

Third, the study relied on self-reported data collected through questionnaires, which could be subject to common method and social desirability bias, as respondents may have provided answers they perceived as more favorable or expected rather than fully accurate reflections over their experiences. Future research should address this limitation by incorporating multiple data sources such as leadership assessments from supervisors, objective performance indicators, qualitative interviews, and focus groups with faculty members in order to strengthen the validity of the findings through multiple sources of evidence.

Finally, as the study was conducted within Jordanian higher education institutions, its findings reflect the institutional structures, sociocultural conditions, economic circumstances, technological infrastructure, and higher education governance environment specific to Jordan. Consequently, the generalizability of the results beyond this context may be limited. Future studies should examine between e-leadership and job satisfaction across different countries or regions to determine whether the observed relationship is consistent across different institutional and cultural settings or influenced by context-specific factors.

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