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AI and algorithmic governance in public administration: implications for faculty satisfaction, HR strategies, and performance systems in higher education

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Abstract: This study investigates the effects of technology integration, human resources practices, and institutional challenges on faculty satisfaction with performance management systems in higher education. With data gathered from 41 faculty members at a public university in Kuwait, the study employs descriptive and inferential statistical analyses, factor analysis, and multiple regression to determine key satisfaction drivers. The results demonstrate that technology integration significantly enhances faculty satisfaction, while HR practices moderate that effect when taken with age. These indicate limited direct impact from bureaucratic processes and budget constraints but also highlight the necessity for effective strategies tailored to the specifics of the institutions. The paper enhances knowledge of designing effective performance management systems in higher education, overcoming institutional challenges, and utilizing technology and strategic HR interventions.

Keywords: technology integration, HR practices, faculty satisfaction, performance management systems.

JEL: I23, M12, O33

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Introduction

In recent years, the landscape of public administration has been rapidly reshaped by digital innovation, with artificial intelligence (AI) and algorithmic governance emerging as transformative forces across institutional settings. Public universities have not escaped these transformations as they are complex organizations within the public sector. The explosion of such tools and data-driven modes of decision-making, fueled by AI, is also rapidly making it imperative for HEIs to adopt such tools and make data-informed decisions to improve their efficiency and transparency, and to HR practices. These promising technologies for efficiency and objectivity pose new challenges related to institutional adaptability, faculty engagement, and the preservation of academic autonomy.

Faculty satisfaction remains a cornerstone of institutional success in higher education. It influences teaching quality, research productivity, retention, morale, and institutional reputation. In public universities, however, faculty members often operate under restrictive bureaucratic frameworks and face systemic challenges such as limited funding, procedural rigidity, and top-down governance models. The integration of algorithmic governance, particularly in areas like performance evaluation, workload monitoring, and career progression, has the potential to disrupt traditional academic cultures. Whether such tools are perceived as enabling or alienating depends largely on how they are implemented and whether they align with faculty expectations, values, and working conditions.

The context of public higher education in Kuwait represents a relevant place to explore such dynamics. As part of a national effort to modernize its public sector and align with global trends in digital governance, Kuwait's public universities are under increasing pressure to demonstrate accountability, performance, and innovation. Yet many still rely on legacy systems that lack the agility or responsiveness required in the digital era. For faculty, this often translates into dissatisfaction with opaque evaluation procedures, inconsistent feedback, and limited opportunities for meaningful professional development. The adoption of AI-enhanced performance systems within these institutions demands a deeper understanding of how such tools interact with existing human resource strategies and institutional constraints.

This study investigates the influence of technology integration, HR practices, and institutional challenges on faculty satisfaction with performance management systems in a Kuwaiti public university. It discusses implications for the broader introduction of AI and algorithmic governance in the weave of public administration within higher education. The study also examines the moderating age effect on faculty responses to HR initiatives and provides a more fine-grained understanding upon which digital governance strategies can be framed to underpin—rather than displace—academic values. By contributing to this nascent field, this research offers data-driven implications for policymakers, academic administrators, and public

managers who are attempting to integrate the trajectory of technological advancement with the future of human-centred governance of higher education.

1. Literature review

Performance management systems in public higher education institutions emphasize accountability, efficiency, and alignment with broader educational goals

1.1 Performance management in public higher education

. Public universities are frequently constrained by regulatory frameworks that require openness and conformity to public accountability norms, in contrast to private institutions that could prioritize profit and market response more. This demands an emphasis on performance metrics that account for social impact and community involvement in addition to academic production (Multan, 2023; Plummer et al., 2021). Broucker et al. argue that the success of public universities cannot be measured solely by traditional performance metrics, as these institutions also serve critical societal functions (Multan, 2023).

Faculty satisfaction is essential for accomplishing institutional goals in public institutions, where faculty must deal with limitations like tight funds and bureaucratic procedures. Research indicates that shared governance and faculty involvement in decision-making significantly enhance job satisfaction, which correlates with improved institutional performance (Kennedy et al., 2020). The challenges that public university faculty members encounter, such as a lack of resources and administrative obstructions, may negatively impact morale and engagement, emphasizing how critical it is to solve these problems to create a positive academic environment (Kennedy et al., 2020; Mahando, 2020).

The role of performance management in enhancing institutional accountability and workforce development is particularly pronounced in the public sector. Effective performance management systems track individual and departmental outputs and facilitate professional development and continuous improvement initiatives (Whalen, 2017). Public universities can more effectively match their resources and efforts with the broader aim of delivering high-quality education and community service by connecting metrics for performance to strategic objectives (Whalen, 2017).

1.2 Technology and performance

Effective use of technology is the key to improving satisfaction and efficiency in public institutions of higher education. Adopting performance-tracking tools, such as learning management systems and data analytics platforms, has improved both faculty and student engagement (Basbeth et al., 2021; Masaracchia, 2024). These tools allow for timely feedback and performance evaluations, enabling institutions

to make well-informed decisions regarding program creation and budget allocation by facilitating real-time feedback and performance evaluations (Masaracchia, 2024). Predictive maintenance tools can serve as an analogy for understanding the role of technology in proactively addressing operational inefficiencies in higher education (Abiad, Kadry, & Ionescu, 2018).

However, introducing sophisticated technology in public universities is often hampered by resource constraints and inflexible procurement policies. As a result, most of these organizational units struggle to adopt innovative solutions that can simplify operations and drive educational outcomes (Basbeth et al., 2021). However, public institutions, with their long-established bureaucratic norms, may struggle to integrate new technologies in the field promptly, leading to lost opportunities for enhancing performance management and improving faculty satisfaction (Tu, 2023). Hence, addressing these challenges is critical to leverage the full potential of technology in education.

1.3 HR Practices and faculty engagement

Strategic human resource practices, including recruitment, training programs, and policy updates, are critical in fostering faculty engagement within public higher education. Exemplary onboarding processes can alleviate faculty satisfaction by making new hires feel like they belong to the institutional culture (Masaracchia, 2024). Furthermore, ongoing professional development opportunities are vital for maintaining faculty motivation and performance, particularly in the face of public-sector constraints (Mahando, 2020).

Demographics, especially age, can also moderate the effectiveness of HR practices in public universities. As faculty members' demographics change, senior faculty members' experience of facing obstacles to adjusting to new systems and technologies may affect their enthusiasm toward their work and overall job satisfaction (Tu, 2023). Understanding these demographic dynamics is essential for developing tailored HR strategies that accommodate the diverse needs of faculty across different age groups.

1.4 Challenges in performance management

Public universities face numerous challenges in implementing effective performance management systems, including bureaucratic processes, budget constraints, and resistance to change. These barriers can impede the development of a performance-oriented culture and negatively affect faculty satisfaction (Tu, 2023; Bessant et al., 2015). The interplay between institutional policies and these challenges often leads to a disconnect between performance expectations and actual outcomes, further exacerbating faculty dissatisfaction (Plummer et al., 2021; Mahando, 2020).

To mitigate these challenges, public universities employ various strategies, such as fostering a culture of continuous improvement and engaging faculty in developing performance metrics (Whalen, 2017). By promoting transparency and collaboration,

institutions can enhance their performance management systems and improve faculty satisfaction and institutional effectiveness (Ross et al., 2022).

2. Research questions and hypotheses

To guide the analysis, the following research questions and hypotheses were formulated based on the study objectives and existing literature:

2.1 Research questions

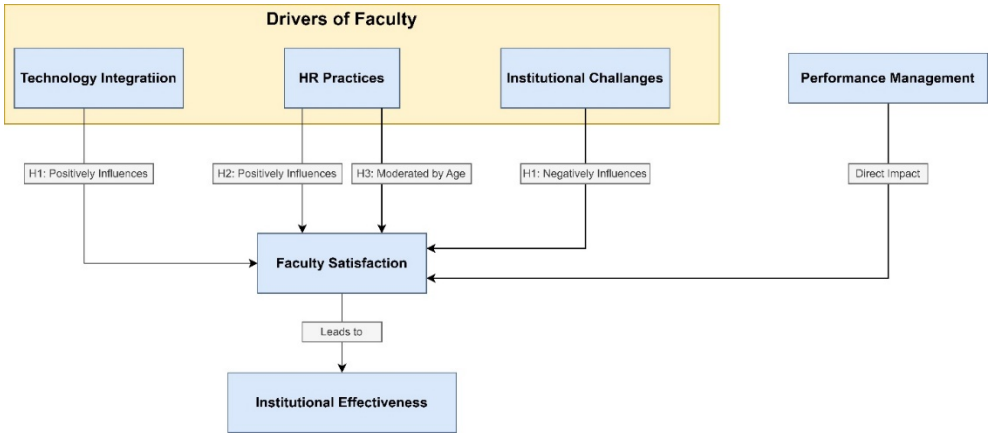
1. What is the impact of technology integration on faculty satisfaction with performance management systems in public higher education?
2. How do HR practices influence faculty satisfaction in public universities, and how is this relationship moderated by age?
3. To what extent do institutional challenges, such as bureaucratic processes and budget constraints, affect faculty satisfaction in public higher education?

2.2 Hypotheses

H1: Technology integration positively influences faculty satisfaction with performance management systems in public universities.
H2: HR practices positively influence faculty satisfaction in public universities.
H3: The relationship between HR practices and faculty satisfaction is moderated by age, with older faculty members in public universities experiencing more significant challenges.
H4: Institutional challenges (e.g., bureaucratic processes and budget constraints) negatively influence faculty satisfaction in public universities

These questions and hypotheses form the basis for the statistical analyses conducted, including descriptive statistics, factor analysis, and regression modelling, to uncover significant predictors of faculty satisfaction in the context of higher education.
Figure 1 titled “Conceptual Framework: Drivers of Faculty Satisfaction and Their Impact on Institutional Effectiveness”, illustrates the conceptual framework of key drivers influencing faculty satisfaction within public higher education institutions-namely, technology integration, HR practices, and institutional challenges. It hypothesizes that technology and HR practices positively influence faculty satisfaction (H1, H2), while institutional challenges exert a negative effect (H4). The relationship between HR practices and satisfaction is further moderated by faculty age (H3). Faculty satisfaction, in turn, contributes to institutional effectiveness and is directly influenced by performance management systems. This framework supports the study’s analysis of how strategic HR and digital interventions shape satisfaction in the context of public sector governance.

Figure 1. Conceptual Framework



Source: Developed by the authors based on original research findings, Own work, 2025

3. Research methodology

3.1 Data collection

A survey was conducted with 41 faculty members from a public university in Kuwait to examine faculty attitudes toward performance management systems. The snowball sampling approach was employed to identify respondents from various academic positions and demographics, and the acquired data was anonymous to preserve confidentiality.

3.2 Variables

The study examined Faculty Satisfaction as the dependent variable and Technology Integration, HR Practices, and Challenges as independent variables. The interaction of Age and HR Practices was included as a moderator variable to assess how age impacts satisfaction. Independent variables were validated using correlation analysis (include Spearman's correlation summary here). HR Practices are a composite variable identified through factor analysis.

3.3 Moderator variable

The interaction of age and HR practices is examined to see how age impacts the effectiveness of HR procedures on faculty satisfaction. The inclusion of this variable provided a better understanding of demographic influences on satisfaction levels.

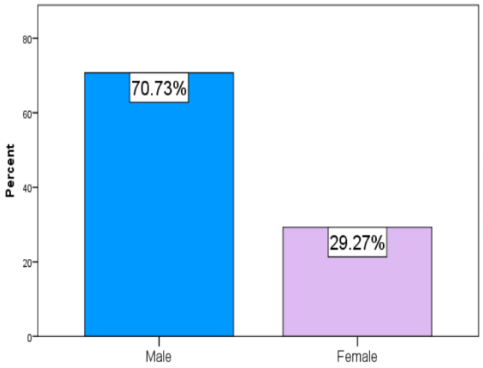
3.4 Statistical techniques

A range of statistical methods was employed to analyze the survey data and uncover meaningful patterns:

3.4.1 Descriptive statistics

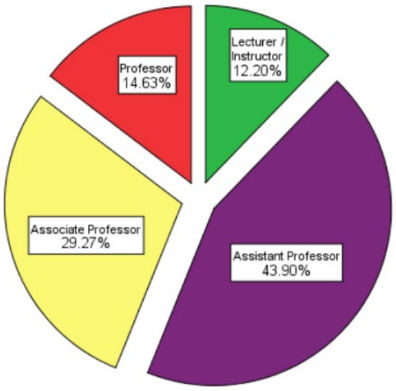
These were used to summarize key demographic information, such as gender distribution, average age, years of experience, and satisfaction scores. This step provided an overview of the faculty profile and satisfaction levels. As shown in Figure 2, the sample was predominantly male (70.73%) compared to female participants (29.27%). Figure 3 illustrates the distribution of academic ranks among the surveyed faculty members. The majority held the rank of Assistant Professor (43.90%), followed by Associate Professors (29.27%), Professors (14.63%), and Lecturers/Instructors (12.20%). These figures reflect the academic composition and hierarchical structure of the faculty sample, contributing context to the interpretation of satisfaction levels across different positions.

Figure 2. Gender distribution



Source: Own Work

Figure 3: Faculty position distribution



Source: Own Work

3.4.2 Factor analysis:

Factor analysis reduced dimensionality, extracting three components: Technology Integration, Challenges for Effective Operation, and HR Role for Global Transformations. Using backward elimination, multiple regression analysis identified significant predictors of Faculty Satisfaction while addressing multicollinearity. The suitability of the data for factor analysis was confirmed by the results presented in Table 1, which shows a Kaiser-Meyer-Olkin (KMO) value of 0.747, indicating acceptable sampling adequacy, and a Bartlett's Test of Sphericity with a significance level of 0.000, confirming that the correlations between items were sufficiently large for factor analysis (Al-Omari & Bani Hani, 2023).

Table 1. KMO and Bartlett's Test[a]

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.747**
Bartlett's Test of Sphericity	Sig.	.000

3.4.3 Multiple regression analysis:

A backward elimination technique was applied to identify significant predictors of faculty satisfaction. This method systematically removed non-significant variables to refine the model. The interaction term for Age and HR Practices was included as a moderator to examine its effect on satisfaction. Multicollinearity was assessed using Variance Inflation Factor (VIF) and tolerance values, ensuring reliable regression results.

3.5 Data analysis

The data were analyzed using descriptive and inferential statistical methods. Table 2 summarizes key demographic statistics of the faculty participants, indicating an average age of 43.9 years and average teaching experience of 11.02 years. The mean satisfaction score with the performance management system was 51.37, with a standard deviation of 32.39, reflecting variation in perceptions among faculty.

Table 2. Mean and standard deviation on research parameters

Research parameters	N	Mean	Std. Deviation
Age	41	43.90	9.95
Experience	41	11.02	8.08
Satisfaction with System Performance	41	51.37	32.39

Source: Own Work

Reliability analysis using Cronbach's alpha showed a strong internal consistency ($\alpha = 0.79$), confirming the coherence of the survey instrument (Cohen et al., 2002). To explore associations among the measured variables, Spearman's correlation was conducted, with results shown in Table 3. Significant positive correlations were found between self-use of technology and university technology use ($r = .603$, $p < 0.01$), and between various HR-related factors such as training programs and faculty engagement ($r = .854$, $p < 0.01$). These results validate the internal relationships among technology and HR-related variables. In contrast, institutional challenge variables (e.g., budget, bureaucracy) had weaker or no significant correlations with faculty satisfaction, suggesting limited direct influence.

Table 3. Spearman Correlations

Research parameters	Self-Use of Tech	University use of Tech	Budget	Bureaucratic	Policies	Resistance to change	Human Resources Role	Training Programs	Strategic Recruitment	Faculty Engagement	Updated Policies
Self-Use of Tech	-	.603**	.256	-.115	-.211	-.391*	-.004	.052	.042	.217	.103
University use of Tech		-	-.078	-.257	-.310*	-.456**	.271	.261	.164	.219	.211
Budget			-	.383*	.338*	.108	.063	.073	.004	.150	.056
Bureaucratic				-	.858**	.664**	-.105	.108	.064	.154	.191
Policies					-	.707**	-.024	.129	.052	.112	.255
Resistance to change						-	.173	.131	.138	.105	.202
Human Resources Role							-	.289	.141	.125	.192
Training Programs								-	.814**	.831**	.784**
Strategic Recruitment									-	.823**	.711**
Faculty Engagement										-	.854**
Updated Policies											-

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

To reduce data dimensionality and identify key constructs, factor analysis was conducted and supported by satisfactory KMO (.747) and Bartlett's test ($p < 0.001$), as shown in Table 1. This analysis extracted three reliable and interpretable components:

1. **Technology Integration**: Reflecting institutional and individual use of technology for performance-related tasks.
2. **Challenges for Effective Operation**: Highlighting bureaucratic obstacles, resistance to change, and budgetary limitations.
3. **HR Role for Global Transformations**: Encompassing training programs, strategic recruitment, updated policies, and faculty engagement.

Table 4. Factor Analysis results				
Research factors		**Varimax Component Loadings**	**Communalities Extraction**	**Cronbach's alpha**
Technology Integration	Faculty use of technology for performance-related activities	.898	.830	.769
	The use of technology by the university for professional development tracking.	.674	.671	
Challenges for Effective Operation	Budget constraints	.673	.694	.814
	Bureaucratic processes	.909	.847	
	Inflexibility in policies	.897	.871	
	Resistance to change	.706	.791	
HR Role for Global Transformations	Training Programs	.943	.906	.958
	Strategic Recruitment	.933	.873	
	Faculty Engagement	.921	.907	
	Updated Policies	.919	.869	

As detailed in Table 4, all items within each component showed high communalities (≥ .67) and strong factor loadings, with Cronbach's alpha values of .769, .814, and .958 respectively, confirming internal reliability.

Each component showed high communalities (greater than 0.5), confirming their relevance to the dataset. Cronbach's alpha values for the three components exceeded 0.7, ensuring their reliability for further analysis.

3.6 Regression analysis

Following factor extraction, multiple linear regression using backward elimination was performed to determine which components significantly predict faculty satisfaction. The final regression model, shown in Table 5, produced an R^2 of 0.225, indicating that Technology Integration explains 22.5% of the variance in faculty satisfaction. Neither institutional challenges nor HR role factors remained significant in the final model- model 3. This confirms the key role of technological tools in shaping faculty perceptions of performance systems in this context.

Table 5. Model Summary

Model	R	R Square
3	.495[b]	.225

Table 6. Model Coefficient

Model		Unstandardized Coefficients		Sig.	Collinearity Statistics	
		B	Std. Error		Tolerance	VIF
1	(Constant)	19.704	23.851	.414		
	Technology Integration	13.177	4.052	.002	.822	1.217
	Challenges	-.652	4.889	.895	.861	1.162
	HR Role	-2.106	4.897	.670	.823	1.216
2	(Constant)	17.561	17.393	.319		
	Technology Integration	13.344	3.803	.001	.909	1.101
	HR Role	-2.307	4.599	.619	.909	1.101
3	(Constant)	11.352	12.101	.354		
	Technology Integration	12.767	3.590	.001	1.000	1.000

Multicollinearity was assessed to ensure the robustness of the regression results. Variance Inflation Factor (VIF) values were approximately 1, and tolerance values exceeded 0.7 for all variables, indicating no multicollinearity issues.
The dependent variable was Faculty Satisfaction, while independent variables included the three factor-derived components (Technology Integration, Challenges, and HR Role), along with demographic controls (e.g., age and position). The interaction term of Age and HR Practices was included as a moderator variable.
The analysis generated three models, with the final model retaining only the significant predictors: Technology Integration ($B = 12.767$, $p < 0.01$) and the constant coefficient ($B = 11.352$, $p > 0.05$). The equation (1) derived from the final model is:

$$Faculty\ Satisfaction = 12.767 \times Technology + 11.352 \quad (1)$$

This equation indicates that for each unit increase in Technology Integration, Faculty Satisfaction increases by 12.767 units. The final model explained 22.5% of the variance in faculty satisfaction ($R^2 = 0.225$).

4. Discussion- key findings and implications

4.1 The impact of technology on faculty satisfaction

To explore the predictors of faculty satisfaction, multiple linear regression analysis was performed using a backward elimination approach. This iterative process

excluded non-significant variables to refine the model, and the following results were obtained

Technology Integration was identified as a significant predictor of faculty satisfaction, accounting for 22.5% of its variability. This underscores the pivotal role of technological advancements in enhancing performance management systems. By streamlining processes such as real-time feedback and professional development tracking, technology improves operational efficiency and fosters greater clarity and fairness in faculty evaluations. Similarly, predictive algorithms in other industries highlight the importance of technology in creating real-time solutions to streamline processes and enhance institutional outcomes (Abiad & Ionescu, 2020).

The findings advocate for strategic investments in innovative, user-friendly, and flexible digital tools that specifically address the unique challenges facing public higher education. Implementing advanced technological solutions is critical for GCC public universities, where outdated systems often undermine engagement. These systems must prioritize functionality and accessibility, ensuring inclusivity for faculty across varying levels of digital proficiency. Moreover, positioning technology as a symbol of institutional support can further bolster faculty perceptions of trust and transparency.

4.2 HR practices and the moderating role of age

The interaction between Age and HR Practices revealed unique challenges for older faculty members. While HR Practices (a composite of training programs, strategic recruitment, updated policies, and engagement) did not directly predict satisfaction, they showed a moderating effect when combined with faculty age. Older faculty often faced difficulties adapting to new systems and meeting heightened expectations in HR-related roles.

Public universities must adopt demographic-specific strategies to address these disparities. Tailored training programs that cater to diverse learning preferences are essential for older faculty members. Additionally, involving senior faculty in policy development can ensure alignment with their needs and foster a sense of ownership. These measures enhance satisfaction and promote inclusivity, making HR practices more effective across age groups.

4.3 Challenges and institutional barriers

Challenges such as bureaucratic processes, budget constraints, and resistance to change did not directly affect faculty satisfaction in this study. However, these factors indirectly influenced the efficiency of performance management systems. Faculty resilience was a notable theme, with respondents demonstrating adaptability by focusing on the positive aspects of their roles in spite of these challenges.

Public universities must focus on reducing institutional barriers to optimize performance systems. Streamlined administrative processes and strategic resource allocation are necessary to create supportive environments. Addressing these barriers

will enhance the overall functionality of performance management systems, indirectly boosting faculty satisfaction.

4.4 Practical Recommendations

Several measures are proposed to enhance faculty satisfaction and improve the overall efficiency of performance management systems in public higher education to translate this study's findings into actionable strategies.

First, enhancing technology integration is paramount. Institutions should invest in intuitive systems that support real-time performance tracking and professional development while ensuring that technological tools are user-friendly and adaptable to varying levels of technical proficiency. Such systems can streamline processes, reduce administrative burdens, and foster greater faculty engagement by making tasks more efficient and accessible. Advanced statistical techniques, such as fuzzy estimators, can offer novel insights into performance metrics and improve the robustness of faculty evaluations in complex institutional settings (Abiad, Shafiq, Shah, & Atif, 2024).

Second, it is essential to develop age-sensitive HR policies that address the specific needs of older faculty members. Tailored training programs designed to accommodate diverse learning preferences can foster engagement with new systems. Additionally, involving faculty members in participatory policy-making processes ensures that HR practices align with their expectations and create a more inclusive and supportive work environment.

Third, efforts should be made to streamline bureaucratic processes. Simplifying administrative procedures can significantly reduce faculty workload, allowing them to focus on their core academic responsibilities. Institutions must also ensure that resource allocation reflects institutional priorities, such as faculty satisfaction and operational efficiency, to create a more enabling environment.

Finally, fostering continuous feedback mechanisms is crucial for improving performance management systems on an ongoing basis. Establishing regular channels for faculty feedback can help identify and address pain points, ensuring that systems remain responsive and effective. Feedback should be used to drive iterative improvements, creating a culture of collaboration and engagement that enhances faculty satisfaction and institutional success.

By implementing these strategies, public universities can create a more supportive environment that prioritizes faculty satisfaction and fosters long-term institutional growth.

4.5 Broader implications for public higher education

This study highlights the transformative potential of technology and strategic HR practices in public higher education, particularly within GCC universities. Universities can create environments that promote satisfaction and engagement by addressing institutional barriers and aligning resources with faculty needs. While the

direct role of HR practices was limited, the findings emphasize the importance of resilience and adaptability in navigating institutional challenges.
Investments in technology and tailored HR strategies are beneficial for enhancing satisfaction and vital for fostering long-term institutional success. Future research should explore additional demographic and contextual variables to develop more holistic frameworks for improving faculty satisfaction in public higher education.

5. Ethical considerations

This study was conducted in accordance with the established ethical guidelines for research involving human participants. All participants provided informed consent before data collection, with full knowledge of the study's purpose, procedures, and that participation was voluntary. They were also assured of the confidentiality of their responses, and no personally identifiable information was collected at any time during the research process.
All collected data were anonymized and securely stored to safeguard participants' privacy. Access to the data was restricted to the research team, and appropriate measures were taken to prevent unauthorized access. By adhering to these ethical standards, the study ensured the protection of participants' rights and maintained the integrity of the research process.

6. Future research

Future research should address the limitations outlined above in order to develop the insights generated from the current study. Future studies utilizing a random sampling technique would promote the representativeness of the sample, and further, the generalizability of findings across the varied populations found in public higher education.
Additionally, longitudinal research designs are recommended to explore the dynamic relationships between technology integration, HR practices, and faculty satisfaction over time. Such studies could provide deeper insights into the causal mechanisms driving satisfaction and identify temporal trends that may influence policy and practice.
Expanding the scope of research to include private higher education institutions could also provide valuable comparative insights. Understanding how faculty satisfaction drivers differ between public and private institutions would enable more tailored strategies for performance management in varied institutional contexts.
Finally, future studies should investigate other components influencing faculty satisfaction, including cultural factors, institutional leadership, and organizational environment. Uncovering an integrated model for faculty satisfaction and then an analysis with other satisfaction measures would give the institutional effectiveness framework a more robust understanding of effectiveness.

Limitations

Despite its contributions, this study has several limitations that should be acknowledged.

First, using a non-probability snowball sampling technique may have introduced sampling bias. While this method allowed for efficient data collection through professional networks, it potentially limits the representativeness of the sample and, consequently, the generalizability of the findings to the broader population of faculty members in public higher education.

Second, the cross-sectional nature of the study restricts its ability to infer causality between variables. Although significant associations were identified, the temporal relationships between variables remain unclear. Longitudinal studies would be needed to explore how these relationships evolve.

Finally, while the sample size of 41 respondents is sufficient for the statistical techniques employed, it represents a relatively small subset of the population. A larger sample size could improve the robustness and reliability of the findings and allow for more detailed subgroup analyses.

7. Conclusions

This study explored the key drivers of faculty satisfaction with performance management systems in public higher education, specifically examining technology integration, HR practices, and institutional challenges. The findings demonstrate the critical role that technology plays in increasing satisfaction, with a notable positive impact that emphasizes its transformational potential. Technology improves operational efficiency and serves as an indicator of institutional support by expediting procedures and assisting with professional growth. This strengthens faculty members' trust and transparency.

The interaction between HR practices and age revealed unique challenges older faculty members face, emphasizing the need for demographic-specific strategies. Tailored training programs and participatory policy-making processes can address these challenges, promoting inclusivity and enhancing satisfaction. Although institutional challenges, such as bureaucracy and budget constraints, did not directly impact satisfaction, they indirectly influenced the effectiveness of performance management systems, highlighting the importance of strategic reforms to address these barriers.

Practical recommendations include investing in advanced, user-friendly technology, developing age-sensitive HR policies, streamlining bureaucratic procedures, and fostering continuous feedback mechanisms. These strategies can create a more supportive environment for faculty, driving satisfaction and institutional success.

This research contributes to the growing knowledge of performance management in public higher education, particularly within the GCC region. While the study's scope was limited to a single public university, the findings offer valuable insights for

policymakers, administrators, and educators seeking to improve faculty satisfaction and institutional performance. Future research should address the identified limitations, explore causal relationships through longitudinal studies, and examine additional factors influencing satisfaction to provide a more comprehensive understanding of faculty needs and institutional effectiveness. By building on these insights, public higher education institutions can enhance their performance management systems, fostering satisfaction and engagement across diverse faculty populations.

Conflict of Interest Statement

The author declares that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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