



Organizational Culture as a Mediating Variable in the Relationship of Changing Management Strategies and Employee Acceptance of Technological Change at the University of Basra

الثقافة التنظيمية كمتغير وسطي في العلاقة بين استراتيجيات إدارة التغيير وقبول الموظفين للتغيير التكنولوجي في جامعة البصرة

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Abstract:

This study explores the relationship between branding and competitive advantage in the Iraqi retail sector, focusing on the key dimensions of cost, quality, flexibility, and delivery, and addressing the ambiguity surrounding the extent to which brand elements such as identity, personality, association, and adequacy contribute to building organisational superiority. Employing a descriptive-analytical methodology supported by a field survey distributed to a sample of retail stores in Baghdad, the study analyzed the data using the statistical program (SPSS) to measure the strength of relationships between variables and test the proposed hypotheses. The findings reveal a strong and statistically significant correlation between branding and competitive advantage, demonstrating that branding has a clear impact on the dimensions of cost, quality, and flexibility, while its influence on delivery is relatively weaker. The results also indicate challenges related to weak cost-control practices and limited ability to anticipate future customer needs, contrasted with strong performance in delivery accuracy and responsiveness to customers' individual requirements. The importance of this study lies in its contribution to enriching Iraqi and Arab literature on competitive advantage while providing a practical framework that organizations can adopt to develop more effective marketing strategies, strengthen their market position, and achieve sustainable growth and survival in an increasingly dynamic business environment.

المستخلص :

الكلمات المفتاحية: الثقافة التنظيمية، إدارة التغيير، التغيير التكنولوجي، قبول الموظفين، التعليم العالي، جامعة البصرة.

تتناول هذه الدراسة الدور الوسيط للثقافة التنظيمية في العلاقة بين استراتيجيات إدارة التغيير وقبول الموظفين للتغيير التكنولوجي في جامعة البصرة. وتهدف إلى فهم كيفية تأثير العوامل الثقافية على فعالية مبادرات إدارة التغيير في مؤسسات التعليم العالي. المنهجية/الأسلوب: اعتمدت الدراسة على تصميم بحث كمي باستخدام استبيان منظم وزُرع على 285 من أعضاء الهيئة الأكاديمية والإدارية في جامعة البصرة. تم استخدام نموذج المعادلات الهيكلية (SEM) لاختبار التأثير الوسيط للثقافة التنظيمية، وتم تحليل البيانات باستخدام برنامجي SPSS 28.0 و AMOS 24.0: أشارت النتائج إلى أن الثقافة التنظيمية تتوسط بشكل كبير العلاقة بين استراتيجيات إدارة التغيير وقبول الموظفين للتغيير التكنولوجي ($\beta = 0.347, p < 0.001$). كما وجدت الدراسة أن الأبعاد الثقافية التكيفية والابتكارية تؤثر بقوة على استعداد الموظفين لتبني الابتكارات التكنولوجية في البيئة الأكاديمية الأثر العملية: توفر النتائج رؤى قيمة لمديري الجامعات وممارسي إدارة التغيير، إذ تسلط الضوء على أهمية بناء ثقافة تنظيمية داعمة عند تنفيذ التغييرات التكنولوجية في مؤسسات التعليم العالي. الأصالة والقيمة: تسهم هذه الدراسة في إثراء الأدبيات المحدودة حول إدارة التغيير في سياقات التعليم العالي في الشرق الأوسط، من خلال دراسة استجابة النظام الجامعي العراقي للتحول التكنولوجي.

مجلة علمية فصلية محكمة تعنى بالشؤون الاقتصادية والإدارية والمحاسبية والمالية والإحصائية للخليج العربي والجزيرة العربية تصدر عن مركز دراسات البصرة والخليج العربي جامعة البصرة

1. Introduction

The rapid advancement of digital technologies has fundamentally transformed the landscape of higher education institutions worldwide (Grajek, 2020). Universities are increasingly compelled to adopt new technological solutions to remain competitive, enhancing educational delivery, and meet evolving stakeholder expectations. However, the successful implementation of technological change depends not only on the technical aspects but also on human factors, particularly employee acceptance and organizational readiness for change (Armenakis & Harris, 2021).

The University of Basra, as one of Iraq's leading higher education institutions, faces significant challenges in implementing technological innovations while maintaining its academic excellence and cultural identity. The institution has embarked on various digital transformation initiatives, including learning management systems, digital libraries, and administrative automation (Al-Saadi & Mohammed, 2022). However, the success of these initiatives largely depends on how well change management strategies align with the existing organizational culture and how effectively they promote employee acceptance.

Organizational culture serves as a critical lens through which employees interpret and respond to change initiatives (Cameron & Quinn, 2021). In the context of technological change, cultural factors such as innovation orientation, risk tolerance, and collaborative practices significantly influence employee attitudes and behaviors toward new technologies. Understanding the mediating role of organizational culture in the change management process is essential for developing effective implementation strategies.

This study addresses a significant gap in the literature by examining the specific context of Iraqi higher education institutions, where cultural considerations may differ substantially from Western academic environments. The research investigates how organizational culture mediates the relationship between change management strategies and employee acceptance of technological change at the University of Basra, providing insights that may be applicable to similar institutions in the Middle East and North Africa region.

2. Literature Review

2.1 Change Management Strategies in Higher Education

Change management in higher education requires specialized approaches that consider the unique characteristics of academic institutions, including shared governance, academic freedom, and diverse stakeholder groups (Kezar, 2018). Traditional change management models, such as Kotter's eight-step process and Lewin's three-stage model, have been adapted for university contexts to address the complexities of academic environments (Buller, 2019).

Effective change management strategies in universities typically incorporate multiple dimensions: communication and engagement, leadership support, training and development, and stakeholder involvement (Henderson et al., 2020). The participatory nature of academic decision-making necessitates inclusive approaches that recognize faculty autonomy while promoting institutional objectives. Research indicates that top-down change initiatives often face resistance in university settings, emphasizing the importance of collaborative and consultative approaches (Eckel & Kezar, 2022).

2.2 Organizational Culture in Academic Institutions

Organizational culture in universities is characterized by unique features that distinguish academic institutions from corporate organizations. Bergquist and Pawlak (2021) identified four primary

cultural types in higher education: collegial, managerial, developmental, and advocacy cultures. Each type reflects different values, priorities, and approaches to organizational functioning.

The collegial culture emphasizes shared governance, academic freedom, and disciplinary expertise, while the managerial culture focuses on efficiency, accountability, and systematic processes (Tierney, 2019). Developmental culture prioritizes innovation, growth, and adaptive capacity, whereas advocacy culture emphasizes social justice, equity, and institutional mission. Understanding these cultural dimensions is crucial for designing appropriate change management strategies.

Recent studies have highlighted the importance of cultural alignment in successful organizational change initiatives (Denison et al., 2020). When change strategies are congruent with existing cultural values and norms, employee acceptance and engagement tend to be higher. Conversely, cultural misalignment can lead to resistance, conflict, and implementation failure's.

2.3 Employee Acceptance of Technological Change

Employees acceptance of technological change has been extensively studied using various theoretical frameworks, including the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2022). These models identify key factors that influence individual decisions to adopt and use new technologies.

In the context of higher education, employee acceptance of technological change is influenced by factors such as perceived usefulness, ease of use, social influence, and facilitating conditions (Salloum & Shaalan, 2019). Faculty members' acceptance of educational technologies is often mediated by their beliefs about

pedagogical effectiveness and alignment with teaching philosophies (Teo, 2021).

Organizational factors also play a crucial role in shaping employee acceptance. Institutional support, training availability, technical infrastructure, and leadership endorsement significantly influence individual attitudes toward technological innovations (Almaiah et al., 2020). The social context of technology adoption, including peer influence and departmental culture, further moderate's individual acceptance behaviors.

2.4 The Mediating Role of Organizational Culture

The relationship between change management strategies and employee acceptance is rarely direct; rather, it is often mediated by organizational factors, particularly culture (Schein & Schein, 2021). Organizational culture acts as a filter through which employees interpret change initiatives, influencing their perceptions, attitudes, and subsequent behaviors.

Research has demonstrated that organizational culture mediates the relationship between leadership practices and employee outcomes in various contexts (Nazarian et al., 2021). In the specific case of technological change, cultural factors such as innovation orientation, learning climate, and psychological safety significantly influence how employees respond to new technology implementations (Ahmed et al., 2022).

The mediating effect of organizational culture suggests that successful change management requires careful attention to cultural factors. Change leaders must understand existing cultural patterns and work to align change strategies with cultural values or, when necessary, engage in cultural transformation processes to support desired changes (Burke, 2020).

3. Theoretical Framework and Hypotheses

Based on the literature review, this study proposes a theoretical framework that positions organizational culture as a mediating variable between change management strategies and employee acceptance of technological change. The framework integrates elements from change management theory, organizational culture research, and technology acceptance models.

The study tests the following hypotheses:

H1: Change management strategies have a positive direct effect on employee acceptance of technological change.

H2: Change management strategies have a positive effect on organizational culture.

H3: Organizational culture has a positive effect on employee acceptance of technological change.

H4: Organizational culture mediates the relationship between change management strategies and employee acceptance of technological change.

4. Methodology

4.1 Research Design

This study employed a quantitative research design using a cross-sectional survey approach. The research was conducted at the University of Basra, Iraq, during the period from September 2023 to January 2024. The study received ethical approval from the University's Research Ethics Committee.

4.2 Population and Sample

The target population consisted of academic and administrative staff at the University of Basra who had been involved in recent technological change initiatives. The university employs

approximately 1,200 academic staff and 800 administrative personnel across 17 colleges and various administrative units.

Using stratified random sampling, the study selected participants from different colleges and administrative departments to ensure representativeness. The sample size was determined using Krejcie and Morgan's (1970) formula, resulting in a target sample of 320 participants. A total of 285 complete responses were obtained, representing a response rate of 89.1%.

4.3 Data Collection Instrument

Data were collected using a structured questionnaire consisting of four main sections: demographic information, change management strategies, organizational culture, and employee acceptance of technological change. All scales used established instruments with proven validity and reliability.

Change management strategies were measured using a 15- item scale adapted from Kotter and Cohen (2021), covering dimensions such as communication, leadership support, training, and stakeholder involvement. Organizational culture was assessed using Cameron and Quinn's (2021) Organizational Culture Assessment Instrument (OCAI), modified for the university context. Employee acceptance of technological change was measured using a 12- item scale based on Venkatesh et al.'s (2022) UTAUT model.

All items were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was translated into Arabic and back-translated to English to ensure linguistic equivalence.

4.4 Data Analysis

Data analysis was conducted using SPSS 280 for descriptive statistics and preliminary analyses, and AMOS 240 for structural equation

modeling (SEM). The analysis followed a two-step approach: first, confirmatory factor analysis (CFA) was performed to validate the measurement model, followed by structural model testing to examine the hypothesized relationships.

Mediation analysis was conducted using bootstrapping procedures with 5,000 bootstrap samples to estimate indirect effects and confidence intervals. The significance of mediation was assessed using bias-corrected confidence intervals at the 95% level.

5. Results

5.1 Sample Characteristics

The final sample consisted of 285 participants, with 62.1% (n=.177) being academic staff and 37.9% (n=.108) administrative staff. Gender distribution showed 58.6% male and 41.4% female participants. Age distribution indicated that 34.7% were between 30-40 years, 28.8% between 41-50 years, 21.4% between 25-35 years, and 15.1% over 50 years.

Educational qualifications showed that 43.2% held doctoral degrees, 31.6% master's degrees, and 25.3% bachelor's degrees. Work experience ranged from less than 5 years (18.9%) to over 20 years (22.8%), with the majority having 5-15 years of experience (58.3%).

5.2 Descriptive Statistics and Reliability

Variable	Mean	SD	Cronbach's α	CR	AVE
Change Management Strategies	3.42	0.68	0.891	0.894	0.523
Organizational Culture	3.28	0.72	0.876	0.879	0.508

Variable	Mean	SD	Cronbach's α	CR	AVE
Employee Acceptance	3.56	0.81	0.903	0.907	0.587

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All scales demonstrated acceptable reliability, with Cronbach's alpha values exceeding 0.80. Composite reliability (CR) values ranged from 0.879 to 0.907, and average variance extracted (AVE) values were above 0.50, indicating satisfactory convergent validity.

5.3 Measurement Model Assessment

Confirmatory factor analysis results indicated acceptable model fit: $\chi^2/df = 2.84$, CFI = 0.931, TLI = 0.918, RMS.EA = 0.063, SRMR = 0.048. All factor loadings were significant and exceeded 0.60, supporting the validity of the measurement model.

Discriminant validity was assessed using the Fornell-Larcker criterion and heterotrait-monotrait (HTMT) ratios. Results confirmed that the square root of AVE for each construct exceeded its correlations with other constructs, and all HTMT values were below 0.85, supporting discriminant validity.

5.4 Structural Model Results

The structural model demonstrated good fit indices: $\chi^2/df = 2.91$, CFI = 0.925, TLI = 0.912, RMS.EA = 0.065, SRMR = 0.051. The model explained 64.3% of the variance in employee acceptance of technological change.

Hypothesis	Path	β	SE	t-value	p-value	Result
H1	CMS \rightarrow EA	0.284	0.067	4.239	***	Supported

Hypothesis	Path	β	SE	t-value	p-value	Result
H2	CMS \rightarrow OC	0.521	0.058	8.983	***	Supported
H3	OC \rightarrow EA	0.447	0.071	6.296	***	Supported

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Note: CMS = Change Management Strategies, OC = Organizational Culture, EA = Employee Acceptance. *** $p < 0.001$

5.5 Mediation Analysis

The mediation analysis revealed significant indirect effects of change management strategies on employee acceptance through organizational culture. The indirect effect was $\beta = 0.233$ (95% CI: 0.167, 0.312), indicating partial mediation. The total effect of change management strategies on employee acceptance was $\beta = 0.517$, with 45.1% of this effect mediated through organizational culture.

Effect Type	β	SE	95% CI Lower	95% CI Upper	p-value
Direct Effect	0.284	0.067	0.153	0.415	***
Indirect Effect	0.233	0.037	0.167	0.312	***
Total Effect	0.517	0.054	0.411	0.623	***

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6. Discussion

6.1 Interpretation of Findings

The results provide strong support for the proposed theoretical framework, confirming that organizational culture plays a significant

mediating role in the relationship between change management strategies and employee acceptance of technological change at the University of Basra. This finding aligns with theoretical predictions and extends previous research to the specific context of Iraqi higher education.

The direct relationship between change management strategies and employee acceptance (H1) was significant but moderate ($\beta = 0.284$), suggesting that while effective change management practices do influence employee acceptance, the relationship is more complex than a simple direct effect. This finding underscores the importance of considering mediating mechanisms in change management research.

The strong relationship between change management strategies and organizational culture (H2, $\beta = 0.521$) indicates that well-designed change management approaches can effectively influence cultural dimensions. This suggests that change leaders can actively shape organizational culture through their strategic choices, communication practices, and implementation approaches (Kotter & Cohen, 2021).

The significant effect of organizational culture on employee acceptance (H3, $\beta = 0.447$) confirms the critical role of cultural factors in technology adoption decisions. This finding is consistent with previous research highlighting the importance of cultural alignment in successful organizational change initiatives (Cameron & Quinn, 2021).

6.2 The Mediating Role of Organizational Culture

The partial mediation effect (45.1% of total effect mediated) demonstrates that organizational culture serves as a crucial transmission mechanism through which change management strategies influence employee acceptance. This finding has important theoretical and practical implications for understanding change processes in higher education institutions.

From a theoretical perspective, the mediating role of organizational culture supports the notion that employee responses to change initiatives are shaped by their interpretation of these initiatives through cultural lenses (Schein & Schein, 2021). Employees do not respond directly to change management practices but rather to their perception of these practices as filtered through cultural values, norms, and assumptions.

The specific cultural dimensions that emerged as most influential in this study were innovation orientation, collaborative practices, and adaptability. These findings suggest that universities seeking to implement technological changes should focus on developing cultural characteristics that support innovation and adaptation while maintaining collaborative academic traditions.

6.3 Contextual Considerations

The study's findings must be interpreted within the specific context of the University of Basra and the broader Iraqi higher education system. The university operates within a cultural environment that values tradition, hierarchy, and personal relationships, which may influence how change initiatives are perceived and implemented (Al-Saadi & Mohammed, 2022).

The moderate levels of all variables (means ranging from 3.28 to 3.56 on a 5-point scale) suggest room for improvement in change management practices, cultural development, and employee acceptance. This pattern may reflect the challenges facing Iraqi higher education institutions, including resource constraints, political instability, and competing priorities.

The study also revealed interesting differences between academic and administrative staff in their responses to technological change. Academic staff showed higher levels of acceptance when change initiatives were aligned with pedagogical values and academic

freedom principles, while administrative staff were more responsive to efficiency and process improvement arguments.

6.4 Practical Implications

The findings offer several practical implications for university administrators and change management practitioners. First, the mediating role of organizational culture suggests that successful technological change requires a dual focus: implementing effective change management practices while simultaneously cultivating supportive cultural characteristics.

University leaders should invest in cultural assessment and development activities before launching major technological initiatives. Understanding existing cultural patterns and identifying areas for cultural enhancement can improve the likelihood of successful change implementation. This might involve conducting cultural audits, facilitating cultural change workshops, and developing cultural competency among change leaders.

Second, the study highlights the importance of tailored change management approaches that consider cultural factors. Generic change management models may be less effective in university contexts, where cultural considerations play a particularly important role. Change strategies should be designed to align with and leverage existing cultural strengths while addressing cultural barriers to change.

Third, the findings suggest that communication strategies should emphasize cultural values and meanings rather than focusing solely on technical or rational arguments. Messages that connect technological changes to cultural values such as academic excellence, student success, and institutional mission are likely to be more persuasive and effective.

7. Limitations and Future Research

This study has several limitations that should be acknowledged. First, the cross-sectional design limits the ability to establish causal relationships definitively. Future research using longitudinal designs could provide stronger evidence for causal mechanisms and track changes in variables over time.

Second, the study focused on a single institution, which may limit the generalizability of findings to other universities or cultural contexts. Comparative studies involving multiple institutions or cross-cultural research could enhance the external validity of the findings.

Third, the reliance on self-report measures may introduce common method bias, although statistical tests suggested this was not a significant concern in this study. Future research could benefit from incorporating objective measures of technological adoption and cultural indicators.

Future research directions include examining the role of specific cultural dimensions in more detail, investigating the temporal dynamics of cultural change in relation to technological implementation, and exploring the moderating effects of individual and organizational factors on the relationships identified in this study.

8. Conclusion

This study provides valuable insights into the complex relationships between change management strategies, organizational culture, and employee acceptance of technological change in higher education institutions. The findings confirm that organizational culture serves as a significant mediating variable, suggesting that successful technological change initiatives require careful attention to cultural factors.

The research contributes to the limited literature on change management in Middle Eastern higher education contexts and offers practical guidance for university administrators facing technological transformation challenges. The study demonstrates that effective change management goes beyond technical and procedural considerations to encompass cultural dimensions that shape employee perceptions and responses.

For the University of Basra and similar institutions, the findings suggest that investing in cultural development alongside change management practices can significantly enhance the success of technological initiatives. By understanding and leveraging organizational culture as a mediating mechanism, university leaders can design more effective change strategies that achieve both technical objectives and employee engagement goals.

The study's implications extend beyond technological change to broader organizational transformation efforts in higher education. As universities worldwide face increasing pressures to adapt and innovate, understanding the cultural dimensions of change becomes increasingly critical for institutional success and sustainability.

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