



E-ISSN: 3108-4176

APSSHS

Academic Publications of Social Sciences and Humanities Studies

2024, Volume 5, Issue 2, Page No: 61-67

Available online at: <https://apsshs.com/>

Annals of Organizational Culture, Leadership and External Engagement Journal

Resistance to Change as a Mediator between Organizational Development and Effectiveness in Higher Education Institutions

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Abstract

This research seeks to examine how organizational development influences organizational effectiveness within Jordanian universities, with resistance to change acting as an intervening variable. A descriptive-analytical approach was adopted to capture participants' viewpoints. Accordingly, a survey instrument was developed and administered to members of the academic staff at Jordanian universities. The study sample included (436) faculty members. The findings indicate that continuous development exerts a statistically significant negative effect on resistance to change, while individual resistance shows a statistically significant positive effect on organizational resistance. In addition, resistance to change was found to partially mediate the relationship between organizational development and organizational effectiveness. The value of this study lies in addressing a gap in the organizational development literature related to the higher education sector, as empirical investigations linking organizational development, organizational effectiveness, and resistance to change remain limited to date. To the best of the authors' knowledge, this is the first empirical study to test the indirect effect of organizational development on organizational effectiveness through resistance to change.

Keywords: Continuous development, Incremental development, Organizational effectiveness, Resistance to change, Universities.

How to cite this article: Berger T, Keller N, Meier LF. Resistance to Change as a Mediator between Organizational Development and Effectiveness in Higher Education Institutions. Ann Organ Cult Leadersh Extern Engagem J. 2024;5(2):61-7. <https://doi.org/10.51847/fbQH8PNLo4>

Received: 19 May 2024; **Revised:** 15 August 2024; **Accepted:** 16 August 2024

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Introduction

Universities' contributions to sustainable economic and social advancement have been steadily increasing and are expected to continue growing in the coming decades. Universities represent key knowledge hubs and institutions that play a vital role in economic progress by promoting innovation and developing advanced skills. However, universities are exposed to numerous environmental dynamics that require ongoing change and development, including intense competition, accelerated technological progress, and the rapid expansion of knowledge domains [1].

The outbreak of the COVID-19 pandemic significantly affected educational models and decision-making processes in higher education [2]. Reports suggest that Jordanian universities encounter several environmental pressures, such as maintaining the quality of higher education outputs, limited ability to upgrade laboratories and teaching facilities, and weak collaboration between universities and research centers. In addition to fragile links between universities and the industrial sector, public universities face difficulties in securing alternative funding sources due to budget constraints, expanding e-learning systems, and the shortage of academic programs aligned with labor market needs [3].

The present study aims to analyze the effect of organizational development on organizational effectiveness, considering resistance to change as a mediating factor in Jordanian universities. Despite the relevance of these three constructs to the university context in Jordan, limited empirical research has addressed them jointly, which motivated the researchers to



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investigate this topic. Furthermore, the study attempts to answer the following questions: What is the nature of the relationship between organizational development and resistance to change in Jordanian universities? What is the relationship between resistance to change and organizational effectiveness in Jordanian universities?

This research adds to the existing body of knowledge on organizational development, organizational effectiveness, and resistance to change. Notably, no prior study has empirically examined the influence of organizational development on both organizational effectiveness and resistance to change in Jordan. Moreover, investigating the link between organizational development and organizational effectiveness in the Jordanian higher education sector is crucial, as it may offer valuable insights into how universities can utilize their unique capabilities to enhance their positions in global university rankings.

Literature Review

Organizational Development (OD)

Planned development initiatives can be viewed along a continuum, ranging from incremental adjustments aimed at fine-tuning organizations to continuous transformations that substantially reshape how organizations function. Incremental development typically targets limited organizational components, such as decision-making practices within workgroups. These changes operate within the boundaries of existing strategies, structures, and cultures to improve current performance. In contrast, continuous development focuses on profound modifications in organizational operations and often encompasses multiple dimensions, including structure, culture, reward systems, information flows, and job design, extending from top management to departments, teams, and individual roles [4]. In essence, continuous development affects all organizational levels, beginning with senior leadership and extending to individual employees' tasks.

Continuous development involves both the characteristics and hierarchical levels of the organization. Senior [5] management usually leads this process with support from organizational development consultants. Through this approach, a clear developmental vision is articulated, efforts are mobilized, and appropriate structures are established to facilitate the transition from the current state to a desired future state. Compared to incremental change, continuous development is more complex and relies heavily on specialized work teams. Enhancing organizational capabilities to respond effectively to environmental changes is essential, particularly for high-involvement organizations [6].

Organizational Effectiveness (OE)

Drucker [7] described organizational effectiveness as the ability to choose and perform the correct actions. Etzioni [8] viewed organizational effectiveness as the extent to which an organization achieves its stated objectives. Karagoz and Oz [9] identified several dimensions for evaluating effectiveness in universities, including physical services, human resource development, alignment of academic curricula, cost management, student relations, employee relations, social responsibility, participation, and the public image of the university. Among the most widely used frameworks for assessing organizational effectiveness in higher education is the Cameron model (1998), which outlines key dimensions such as student educational satisfaction, students' professional growth, academic development, personal development, faculty professional satisfaction, resource attraction capability, faculty job satisfaction, system openness, environmental interaction, and organizational health [10]. Suleiman (1993) applied the Cameron model to assess organizational effectiveness in Jordanian public universities and found that the level of effectiveness was below the overall average. He also reported no statistically significant differences in perceived effectiveness attributable to variations in faculty academic ranks.

Organizational development and organizational effectiveness

The linkage between organizational development (OD) and organizational effectiveness (OE) has drawn considerable scholarly attention, resulting in numerous studies that demonstrate a strong association between these two constructs. For instance, Alabri (2014) showed that organizational change influences employee performance within Omani ministries. His findings indicated that organizational culture, structure, and technology significantly affect employee performance, while the human resources dimension does not. Similarly, Alqaisi (2017) concluded that organizational development strategies play a vital role in creating high-performance organizations, with the independent variable accounting for 66.4% of the variance in the dependent variable. In addition, Hashash (2016) found a statistically significant impact of OD dimensions—specifically the practitioner–client relationship, the diagnostic phase, and self-renewal—on employee performance in Jordanian commercial banks.

Hiyasat (2017) reported that organizational development and its sub-dimensions, including organizational structure, methods, procedures, and information technology, have a significant effect on organizational performance as measured through internal processes and employee learning. Furthermore, Okenda *et al.* [11] demonstrated that changes in organizational structure, information systems, organizational size, and leadership style influence organizational performance. In a similar context, Okeke *et al.* [12] found that change management exerts a positive and significant effect on organizational performance within

a manufacturing organization, highlighting the importance of technological change, change management strategies, and leadership transformation.

Moreover, Paschal and Onuoha [13] revealed a positive and statistically significant relationship between emergent change and organizational effectiveness, measured through employee commitment and corporate growth. Organizational effectiveness is enhanced by the presence of effective change management practices. Change management also has a substantial impact on organizational capabilities, thereby serving as a catalyst for increased innovativeness [14]. Likewise, Alrumaih [15] concluded that organizations seeking to improve performance and meet stakeholder expectations must continuously adapt to change. Overall, prior empirical evidence consistently confirms that organizational development has a direct influence on organizational effectiveness.

Resistance to change

Resistance to change refers to any attitude or conduct that reflects unwillingness to accept or support intended modifications [16]. This phenomenon is viewed as multidimensional, encompassing behavioral responses, cognitive evaluations, and emotional reactions to change [17]. Traditional perspectives have often framed resistance as an obstacle that must be eliminated [18, 19]. However, alternative views challenge this negative portrayal by highlighting potential constructive aspects of resistance. For instance, resistance can contribute positively by refining strategies and implementation plans [18], improving decision quality [20], or fostering organizational learning among members [21].

Numerous factors drive resistance to change. On the individual level, transitions often provoke anxiety regarding an unknown future. Research by Yahya and Mohammad [22] identified psychological factors, organizational elements, and cultural values as key sources of resistance. Additionally, Knappe *et al.* [23] pointed to personal traits—including self-efficacy, openness to experience, skepticism, fear of uncertainty, and resilience—as potential contributors. The work of Yahya and Mohammad [22] examined individual-level causes of resistance and managerial approaches to address them, noting that explicit and implicit coercion emerged as a frequently applied strategy.

At the organizational level, resistance arises from contextual elements such as participation in decision-making, workplace climate, job satisfaction, commitment, and communication about change [23]. Cummings and Worley [4] classified organizational resistance into three categories: technical, political, and cultural. In a specific context, Hanif *et al.* [24] found three primary drivers (human factors, organizational factors, and IT training) influencing resistance within the State Bank of Pakistan, where higher organizational resistance was linked to successful business process reengineering outcomes. Conversely, Ithem and Smail [25] reported only a weak association between organizational change initiatives and quality assurance at Batna University. Given these mixed findings on the interplay between change and resistance, the following hypotheses are proposed:

H1: Continuous organizational development is negatively associated with organizational resistance to change in Jordanian universities.

H2: Incremental organizational development is negatively associated with individual resistance to change in Jordanian universities.

H3: Individual resistance to change is positively associated with organizational resistance to change in Jordanian universities.

Resistance to change and organizational effectiveness

The impact of resistance to organizational change on effectiveness varies, producing both detrimental and beneficial outcomes. Institutions, particularly universities, should distinguish these effects to anticipate and mitigate negatives while leveraging positives for better management [26].

Resistance is frequently cited as a primary reason why over one-third of major organizational development efforts fail. Thus, identifying root causes of employee resistance benefits both leadership and staff. Prior studies have highlighted several triggers, including conflicting interests between management and workers, breakdowns in inter-level communication, managerial misinterpretation of resistance, and employees' limited grasp of change necessity [17, 27]. Drawing from this foundation, the researchers propose:

H4: Organizational resistance to change is negatively related to organizational effectiveness in Jordanian universities.

H5: Individual resistance to change is negatively related to organizational effectiveness in Jordanian universities.

H6: Organizational resistance to change mediates the relationship between continuous development and organizational effectiveness in Jordanian universities.

H7: Individual resistance to change mediates the relationship between incremental development and organizational effectiveness in Jordanian universities.

Figure 1 presents the conceptual framework for this study.

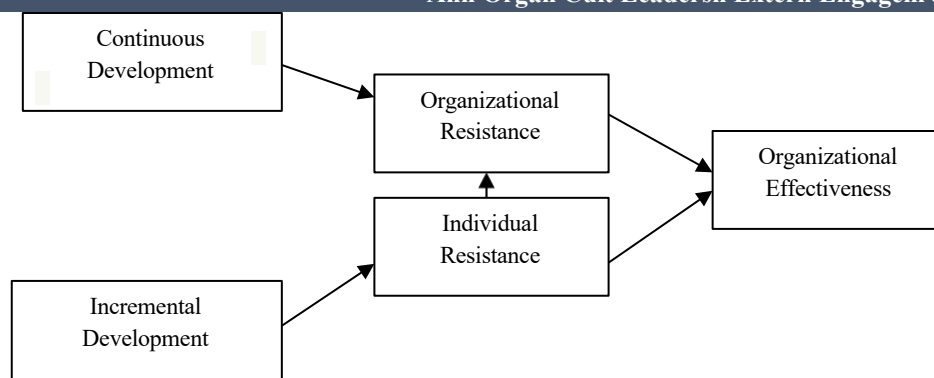


Figure 1. Conceptual Model

Materials and Methods

A simple random sampling technique was applied to select participants from the target population during the 2020-2021 academic year. The final sample included 436 faculty members holding positions of professor, associate professor, assistant professor, or lecturer, drawn through stratified random sampling. This sample represented approximately 10% of the overall population, with questionnaires successfully collected from all 436 participants after distribution by the research team. The demographic distribution of the sample is displayed in **Table 1**.

Table 1. Frequencies and percentages of demographic factors.

Variable Characteristics	Frequency	Percentage
Academic Rank		
Professor	85	19%
Associate Professor	135	31%
Assistant Professor	180	41%
Teacher	36	9%
University		
Yarmouk University	113	26%
Jordan University of Science and Technology	102	23%
Albalqa Applied University	170	39%
Al-Bayt University	51	12%
Gender		
Female	98	22%
Male	338	78%

Findings reveal that the largest group of participants (41%) held the rank of Assistant Professor. Close to 39% of the respondents were affiliated with Alpalqa Applied University. Additionally, **Table 1** shows that 78% of the participants were male.

Study instrument

The development of the questionnaire was informed by an extensive review of relevant literature and prior empirical work on organizational development, organizational effectiveness, and resistance to change. Several established instruments from earlier research were also examined. The questionnaire consisted of two main sections:

Part one: Demographic details – participants provided information on their academic rank, affiliated university, and gender.

Part two: Core study constructs, comprising:

- The first construct (independent variable): Organizational development, measured through 16 items. This included two sub-dimensions – items H1 to H8 addressing continuous development, and items H9 to H16 addressing incremental development. The scale was adapted from the works of Abdul Salam [28] and Alqaisi (2017).
- The second construct (dependent variable): Organizational effectiveness, assessed via 15 items (H17 to H31). Measurement was based on the widely recognized Cameron model (1998).
- The third construct (moderating variable): Resistance to change, evaluated using 15 items (H32 to H47). Items were drawn from the studies of Ihem and Smail [25] and Knappe *et al.* [23].

Study validity and reliability

Face validity of the instrument was established through review by five expert academic referees. A pilot study was further conducted with 30 faculty members from Jordanian universities. Modifications to item wording and ordering were made in response to feedback received from both referees and pilot participants. The final questionnaire employed a five-point Likert

scale to capture levels of agreement with each item. Using simple random selection, 450 questionnaires were distributed to faculty across four universities. A total of 436 valid responses were obtained, yielding a response rate of 93%, which was deemed adequate for statistical analysis. Internal consistency was assessed using Cronbach's Alpha, resulting in an overall coefficient of 93% across all study dimensions.

Results and Discussion

Structural equation modeling was performed using AMOS 22 to evaluate the proposed relationships among constructs. Model fit statistics are summarized in **Table 2**.

Table 2. Goodness of fit indices

Goodness of Fit Index	Recommended Cut-off Value	Obtained Result	Model Status
χ^2 (CMIN)	Expected to be small	5.967	Fit
Significance Probability	≤ 0.05	0.051	Fit
RMSEA	≤ 0.08	0.068	Fit
GFI	≥ 0.90	0.995	Fit
CMIN/DF	≤ 3.00	2.984	Fit
TLI	≥ 0.90	0.855	Acceptable
CFI	≥ 0.95	0.971	Fit
RMR	≤ 0.08	0.004	Fit

As shown in **Table 2**, the model demonstrated strong fit with the data: probability (p) = 0.051, CMIN = 5.967, (CMIN/DF) = 2.984, Goodness of Fit Index (GFI) = 0.995, Tucker-Lewis Index (TLI) = 0.855, Root Mean Square Residual (RMR) = 0.004, and Root Mean Square Error of Approximation (RMSEA) = 0.068.

Hypothesis testing of hypothesized model

Following guidelines from Hair *et al.* [29], hypotheses were supported when the critical ratio (C.R.) for regression weights exceeded ± 1.96 in absolute value. The C.R. was calculated by dividing the regression estimate by its standard error (S.E.). Results of the hypothesis tests are presented in **Table 3**.

Table 3. Regression Weight for Hypotheses Testing Result

Hypothesis	Estimate	Standardized Estimate	S.E.	C.R.	P	Test Result
H1: Organizational resistance $\leftarrow$ Continuous development	-0.436	-0.236	0.079	-5.521	***	Accepted
H2: Individual resistance $\leftarrow$ Incremental development	0.042	0.008	0.248	0.170	0.865	Rejected
H3: Organizational effectiveness $\leftarrow$ Organizational resistance	-0.059	-0.031	0.099	-0.594	0.553	Rejected
H4: Organizational effectiveness $\leftarrow$ Individual resistance	-0.052	-0.066	0.041	-1.257	0.209	Rejected
H5: Organizational resistance $\leftarrow$ Individual resistance	0.161	0.388	0.018	9.130	***	Accepted

Table 4 indicates that two hypotheses (H1 and H5) were supported, confirming a negative association between continuous development and organizational resistance, as well as a positive association between organizational and individual resistance. In contrast, three hypotheses (H2, H3, and H4) were not supported, as their critical ratios fell below the 1.96 threshold.

Mediating effect of the hypothesized model

Mediation occurs when an intervening variable influences the association between two related constructs. In the present research, the authors first examined the mediating role of organizational resistance in the link between continuous development and organizational effectiveness. Secondly, they assessed the mediating role of individual resistance in the connection between incremental development and organizational effectiveness. The indirect effects within the proposed model are detailed in **Table 4**.

Table 4. Indirect effects of hypothesized model

Indirect Effects	From Continuous Development	From Incremental Development	From Individual Resistance	From Organizational Resistance
To Individual Resistance	0.000	0.000	0.000	0.000
To Organizational Resistance	-0.130	0.007	0.000	0.000
To Organizational Effectiveness	0.075	-0.010	-0.009	0.000

The standardized indirect effects reported in **Table 4** demonstrate that organizational resistance significantly mediates the relationship between continuous development and organizational effectiveness. In contrast, no mediating effect was found for individual resistance in the relationship between incremental development and organizational effectiveness.

The current investigation formulated multiple hypotheses to investigate the direct influence of organizational development on resistance to change. Firstly, continuous development exerts a negative impact on both individual and organizational resistance, aligning with earlier research [14, 17, 25]. This outcome underscores the critical function of organizational development in mitigating adverse resistance through clear procedural communication across all stakeholders in development initiatives and fostering trust between employees and leadership regarding the specifics of the development strategy. Secondly, individual resistance positively influences organizational resistance, which supports prior findings [22, 24]. These results suggest that universities must identify root causes of resistance, implement robust change management practices, understand the resistance lifecycle, and embrace change. Key recommendations include adopting sustained initiatives to advance technology, structure, culture, and strategy, as incremental development lacks enduring impact. Additionally, a negative association exists between resistance to change and organizational effectiveness. Thirdly, the findings indicate an adverse relationship between resistance to change and organizational effectiveness, consistent with previous work. This calls for proactive management of development processes and promotion of change acceptance in universities. Effective strategies to lower resistance levels should incorporate empathy, open communication, and stakeholder participation—addressing concerns by actively listening to those struggling with change and reducing uncertainty through comprehensive information sharing. Thus, university development efforts should establish strong communication channels and actively engage staff in change implementation. Fourthly, organizational resistance was found to mediate the association between organizational development and organizational effectiveness, implying that universities need to address entrenched systems, procedures, and climates that reinforce the status quo.

Conclusion

This research sought to empirically investigate the effect of organizational development on organizational effectiveness within Jordanian universities, with resistance to change acting as a mediator. The focus was placed on four public universities in Jordan. As one of the initial efforts, this study introduced an original framework integrating organizational development and organizational effectiveness, mediated by resistance to change. An extensive literature analysis identified core components related to incremental and continuous development, organizational and individual resistance to change, and organizational effectiveness. Structural equation modeling results showed that continuous organizational development significantly reduces resistance to change, while individual resistance significantly increases organizational resistance. Furthermore, organizational resistance partially mediated the pathway from organizational development to organizational effectiveness, attributable to its capacity to impede development programs. Successful leadership in change must therefore proactively guide processes, sustain effectiveness, demonstrate strong commitment to transformation, encourage innovation, enhance institutional components, create a supportive environment for change, and adopt contemporary approaches such as professionalizing university administration [30].

Practically, these insights offer valuable guidance for decision-makers in Jordanian universities to promote change readiness and counter resistance through proven approaches like enhanced communication, staff involvement, and cultivating political backing. Additionally, leaders should prioritize cultivating a robust institutional culture aimed at greater effectiveness and reinforcing values among faculty [31].

Limitations include data collection solely from faculty members, relying on their views from four public universities located in northern Jordan, which restricts broader applicability. Subsequent investigations could extend the framework to private institutions or incorporate additional variables, such as organizational communication or personal readiness for change.

Acknowledgments: None

Conflict of interest: None

Financial support: None

Ethics statement: None

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