

Investigating the Impact of Strategic Improvisation Ability on Improvisation and Organizational Performance in Iraqi Technology Companies

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استقصاء تأثير القدرة على الارتجال الاستراتيجي على الارتجال والاداء التنظيمي في شركات التكنولوجيا العراقية

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Abstract

Objective: Changes in the market are increasing rapidly and product technologies are becoming more complex, making it difficult for businesses to make quick decisions and plan strategically. These changes in technology companies can also lead to crises. Therefore, the current study aimed to investigate the impact of the ability to improvise strategically on improvisation and organizational performance in Iraqi technology companies .

Methodology: Quantitative research method. The research community consists of senior managers and experts of technology companies. Companies that have about 10 years of experience in the official presence in Iraq. A questionnaire of 36 questions was developed to measure the main categories. Using Morgan's table, 384 managers, employees and employees of technology companies were selected in the form of the available probability sampling method. Research model and relationship between variables in each hypothesis from the hypotheses obtained from the model, a causal structure was tested using the partial least squares (PLS) technique and the results regarding the standard factor load of the presented variables were confirmed .

Results: The results showed that the ability of strategic improvisation affects strategic improvisation. Strategic improvisation also affects organizational performance. Strategic improvisation mediates the relationship between the ability of improvisation strategically and organizational performance .

Conclusion: In the face of a rapidly changing external environment, especially unforeseen emergencies, companies must be effective and react quickly to avoid economic losses. Therefore, technology companies must actively change their strategies and develop the ability to improvise. These findings will help Iraqi technology companies make better decisions in dynamic markets and increase their regulatory performance by improving their improvisation capabilities.

Keywords: Improvisation, Strategic improvisation, Organizational performance, Technology companies

1. Introduction

Successful technology companies and organizations of the twenty-first century are restructuring at an unimaginable pace compared to the past towards responding to environmental conditions such as customer needs. Today's knowledge-based companies and organizations have come to the vision that the customer has been the key factor in surviving and maintaining competitive edge, and marketing can help in creating and retaining these customers. Individuals and customer groups in technology companies and institutes should be the main focus of attention, and the reality of today and tomorrow for enterprises is that incompatibility or resistance to

implementation will only increase costs for technological companies and institutes. Technological organizations or companies are one of the main tools for governments to promote technology, promote the technological economy, and disseminate knowledge in industries (Ershadi & Kazerooni, 2022). These organizations are considered the main sector of the economy of developing countries and play a vital role in growth and spurring entrepreneurship, innovation and prosperity (Mohammed Hashemi et al., 2018).

Changes in the market are rapidly increasing, product technologies are becoming more complex, so companies must use external knowledge in the process of creating their internal knowledge (Eslami and Lakemond, 2016). Liu et al., 2018) and can cause significant confusion for managers trying to strategically direct these events. Managers facing a crisis must make critical strategic decisions and take strategic action in the face of extreme uncertainty regarding the market environment (Meyer & Mamédio, 2024). Crisis situations are inherently uncertain, and the lack of awareness of the effectiveness of actions in such uncertainties is obvious; therefore, managers suffer from an inability to predict optimal behaviors, choices, actions, or responses to critical events, and whether the outcomes of the organization's actions will be positive or negative (Reiman et al., 2015). However, strategic decision-making is compromised in times of crisis, due to contextual challenges, and the fact that marketing managers and executives are limited in their area of information processing abilities (Mamédio et al., 2022).

The ability of improvising means to create and create new responses, without prior planning and without being sure of their consequences; in other words, improvisation is the simultaneous planning and implementation of a strategy. Such an approach emphasizes formal strategic planning and control (Steele & Stefánsson, 2015). In high-speed environments, dynamic abilities develop through experimental activities, such as improvisation, prototyping, real-time information, and experimentation (Cunha et al., 2020). In addition, Zahra et al. (2006) suggest that young non-traditional companies develop their dynamic capabilities by relying on improvisation and learning through practice. , like improvisation, is self-systemic and engraved, and can be considered a dynamic "secondary" ability (Bernstein & Barrett, 2011).

Although previous literature has made significant progress in understanding what implies improvised ability, research gaps remain. For example, previous research has largely ignored the role of strategic improvised ability in shaping improvised ability. However, preliminary research has shown that the ability to improvise strategically is an important motivating factor for improving organizational performance (Liao et al., 2023). In addition, the relationship between strategic improvised ability and company performance is inconsistent with previous research that has focused primarily on examining the relationship between the ability to improvise and innovation performance while ignoring others. Related performance dimensions, such as financial results (Du et al., 2015; Gao et al., 2015; Pavlou and El Swy, 2015). Kanha et al. (1999) claims that strategic improvisation enables companies to respond quickly and appropriately to emergencies, minimize losses, and thus have a positive impact on performance.

Startups in Iraq are a type of business entity that focuses more on the development and production of technology based on new technologies. In this concept, technology refers to technologies based on data processing, databases, communication services, biochemistry and biochemistry, and mechatronics, electronics, digital software, etc. . In addition to researching the above areas, technology companies can also work on e-digital business, software, and Internet services, such as e-commerce. In general, the scope of work of technology companies is quite wide, and this issue is due to the intertwining of many sciences and development platforms in the field of technology. In Iraq, many organizations and institutions are directly related to this issue, and from them we can mention the Iraqi Ministry of Communications, and Media Commission, and the Ministry of Culture and youth, mobile phone companies, central data centers in the capital, and others can be mentioned. Of course, due to the special circumstances of Iraq, the category of information technology in the form of technological service companies is mostly located in the centers of the provinces, which are allocated to sub-cities, which are part of technological services. Startups who make decisions faster benefit from better sales, profits, and competitive positioning, and this issue is even more important in tech companies. Making the right and right marketing decisions in the shortest possible time is the key to the survival and success of organizations in the current business world. With the help of classic strategic management, it is not possible to formulate a strategy in complex environments. In this case, strategic improvisation manifests itself in the form of simple rules and prevents the organization from deviating from its course. These companies need to embrace improvisation to respond to the environment. However, the lack of integrated models in the field of the effects of strategic improvisation capabilities in Iraqi technology companies, especially the theoretical gap in the role of strategic improvisation capabilities in improving

improvisation and organizational performance, has caused these companies to be unable to obtain faster environmental responses. Therefore, this study seeks to investigate the impact of the ability to improvise strategically on strategic improvisation and organizational performance in Iraqi technology companies .

٢- Theoretical foundations of research

٢.١ Improvisation and improvisation-based strategy

Moorman and Miner (1998) believe that improvisation is formed when the formulation and execution of an act overlap at the same time. The main factors include the spontaneous nature of improvisation and the use of available resources. This utilitarian situation that forces improvisationists to use available resources emphasizes the conditions in which actions lacking generality are the result of environmental pressures. Kanha et al. (1999) Improvisation as a concept of work revealed by the organization and its people using available materials and social, cognitive and effective resources. They believe that improvisation occurs during work and an individual cannot delay responding to a challenge, thinking and planning to solve a challenge. In such a situation, it is not possible to decide on the correctness of the decision. The results of preoperative decisions cannot be evaluated. Improvisation represents a critical process capability that can enable quick axes involving innovation. It refers to the integration of the design and implementation of new production (Cunha et al., 1999; Miner et al., 2001). Her soul in everyday life is captured by the phrase: "Make up for it as you go." Improvisation, by definition, involves new productions that have not been fully planned in advance. However, it is usually used or associated with previous structures: it is not the main practice to manifest itself in a space devoid of previous styles. This can include elements of knowledge and previous plans, while continuing to generate new actions (Cunha et al., 2016). Can create different proportions Previous designs and new elements have different types and degrees of innovation (Hadida & Odiase, 2024; Miner et al., 2024).

Scholars sometimes highlight different aspects of improvisation, but at least the formal definition of the process includes three conceptual dimensions (Miner et al., 2024; Cunha et al., 1999; Moorman, W. Miner, 1998) These are the convergence of design and performance (speed), the creation of a certain degree of new work (innovation), and the intentionality of the design that is created during its implementation (intent). This process often involves working with an improvised reference (Miner et al., 2024), which may be an earlier version of a previous business style or design. This definition suggests that improvisation represents a certain type of innovation. Improvisation does not occur in a vacuum. Improvisation is created on the basis of a concrete situation that has its own conditions and possibilities , but in improvisation, everything must be done immediately. Improvisation works the same way in the world of communication .

Bahrami and Evans (2011) suggest that due to the impossibility of "predicting and planning in advance for any contingency (...) We need the ability to use our 'reflective instincts' to act 'on site' to improvise quickly and spontaneously as new stimuli emerge." Competent improvisation also supports responsiveness and competitive agility when advantages are temporary and time-dependent, such as transient competitive advantage (Hadida & Odiase), Thus, as a process, when environments become unpredictable, effective improvisation becomes particularly important. Improvisation can represent a form of embodiment of the synthesis of the past, present and future. (Brown and Eisenhart, 1997) .

Brown and Eisenhart (1997) borrow the definition of Moorman and Miner (1998) as "improvisation: the strategy of its organization based on its formation when implemented". According to Barthes (1998), improvisation is the creation of new answers without prior planning and without certainty of its consequences, that is, discovering the future that our work creates. In fact, improvisation can be defined as the idea of creating the best things that await a return to the way things should be done. Improvisation is The exception is that when things are not executed the way they should be, it is possible to go back. Improvisation is a deviation from the current method or knowledge that occurs when a problem occurs in an organization. Companies may resort to improvisation to correct and modify poor management, employee errors, or rapid changes in the environment, or management may use improvisation in order to create more flexibility and make more spontaneous decisions.

Wake (2001) considers improvisation as a "strategy at the right time." He also considers the myth of strategic plans and proposed strategies as a measure towards improvisation, and believes that the new necessity in organizational studies in order to understand improvisation and learning is indicative of growing social concerns about how to improvise, deviate from the technique or there is knowledge that occurs in the event of a problem in the organization. Companies may improvise in order to correct and modify poor management or employee

mistakes Or rapid environmental changes. Or management may use improvisation in order to build more flexibility and make more spontaneous decisions .

٢.٢ The ability to improvise

The ability to improvise is defined as the ability of a team to act spontaneously in an attempt to respond to problems or opportunities in a new way. Improvisation is considered an ability and has a purpose (Hefat et al., 2007). This view contrasts with the perspective of improvisation as "a deliberate and objective fusion of the design and implementation of an innovative production" (Miner et al., 2024) and corresponds to the "concept of action as it emerges" (Gomes, 2024). The inclusion of spontaneity in the definition includes the unauthorized aspect of improvisation – a central aspect of improvisation definitions (Hatch, 1998; Vera and Crossan, 2004, 2005; Wick, 1993. However, the ability to improvise goes beyond temporary activities that do not reflect practiced behavior or pattern (Helfat and Winter, 2011). In fact, Shela et al . believes. (2024) that improvisation—ability— is derived from temporary problem solving characterizes and argues that temporary problem solving is neither traditional nor high-style, while improvisation relies on "the basis of engraved and practiced performance, the capital of wisdom. Patterns that are reassembled and sequenced in creative ways".

The ability to improvise organizational refers to a company "the ability to instinctively recalibrate existing resources to develop new operational skills to deal with critical, unforeseen and environmental issues (Kung and Kung, 2019). This is the degree of concentration and overlap in the planning and implementation of strategies to address dynamic situations (Vera and Crossan, 2005). The literature shows that organizational improvisation, as part of strategy, complements traditional organizational planning (Pavlou and El Saury, 2010). Helps organizations "deal with new opportunities and challenges more effectively" (Kung and Kung, 2019; Adumako et al., 2018). In addition, many organizations cultivate the capacity for improvise as an internal capacity of the organization and formulate the system and process of implementing improvisation (Adomako et al., 2018; Tseng et al., 2015; Vera and Croissant, 2005). The ability literature has proposed a hierarchy in an attempt to give structure to the concept of capabilities. This classification between operational (normal, zero, or basic), dynamic (first order) and learning (second order) abilities (Collis, 1994; Helfat and Winter, 2011; Winter, 2011, Flower et al., 2020; Zulu and Winter, 2002. Winter (2003) uses a mathematical metaphor for derivatives to describe the hierarchy: (a) Zero-order operational capabilities represent how a company is currently making money. (b) Dynamic capabilities are the "first derivative" of operational capabilities, i.e. their change; (c) Second-order "derivative" capabilities are operational capabilities and "first derivative" of dynamic capabilities, i.e. their change. Operational capabilities enable a company to carry out an activity on an ongoing basis using similar technologies on the same scale to support products and services available to the same customer population (Helfat & Winter, 2011). Dynamic capabilities enable a company to change its way of life, including changing operational capabilities, a company's resource base, or external features.

Helfat and Winter (2011) state that improvisation is a dual-purpose ability. At the operational level, R&D teams facing unforeseen problems or opportunities, for example, when obtaining unexpected test results, can provide a solution to "fight fire" without changing current R&D processes or Focus on product and market. In this scenario, the ability to improvise helps the operational performance of the team. Impromptu solutions may have a short-term effect in real time (Miner et al., 2024). But the status quo does not permanently change how the team operates. At a dynamic level, R&D teams can radically change the way they work by improvising new processes or methods, or by introducing new markets or products in response, for example, to the need to interact with a competitor's work or to an action (Chetty et al., 2024). The sudden discovery of a similar invention created. In this scenario, improvisation changes the way things are done , and when maintained by the team, it can become a permanent part of the artifacts, processes, or knowledge of the team (Miner et al., 2024).

٢.٣ Conceptual development of theories

Charonsockmangal and Pandey (2023) stated that improvisation relies on a customer-oriented approach and can therefore improve an organization's sales performance. By expressing improvisational behavior among Yanyaris et al. (2021) In a study, they showed that the business and political relationships of places of organizational flexibility are related to organizational improvisation and, ultimately, the financial and non-financial performance of the company. In this study, the direct and indirect positive effects of business relations on organizational improvisation and the direct and indirect negative effects of political relations on organizational improvisation will be assessed. Alissa (2021) showed the relationship between improvisation in financial strategies and

corporate business performance. Harandi (2017) investigated the impact of strategic intelligence and improvisation-based strategy on agile performance in IT companies. The results suggest that strategic intelligence and improvisation-based strategy are effective on the agile performance of knowledge companies in the field of information technology. The mediating role of improvisation-based strategy in the impact of strategic intelligence on the agile performance of Iranian tech companies was also emphasized.

Khashei et al. (2016) in a study titled "Strategic Improvisation of Tech Companies in Complex Environments" in research that the environment of organizations is an environment full of disruptions, uncertainty and change. Therefore, decision-making in such complex circumstances is difficult for managers and managers do not welcome traditional methods of strategic planning due to the lack of flexibility and unpredictability of the future. Improvisation means creating and creating new responses, without prior planning and without certainty about its consequences; In other words, improvisation is planning and execution Simultaneous strategy. The purpose of this study is to investigate the relationship between strategic improvisation on organizational performance in relation to the three components of environmental responsiveness, flexibility, structural adaptation, and practical agility. The statistical population of this study is the directors of technological companies located in the Science and Technology Park of the University of Tehran. Research information and data were extracted through a questionnaire. For the analysis of data, Pearson's correlation coefficient and the test of structural equations were used. The results show that due to planning constraints in turbulent environments, managers can help an organization perform better by making improvised decisions in the organization. Strategic improvisation increases the ability to respond to environmental challenges, makes the organization more flexible and increases the agility of the organization.

Based on this, we can assume:

Hypothesis 1: The ability of strategic improvisation affects strategic improvisation.

The ability to improvise and the performance of the organization

Performance is a collective term for the results of activities carried out by a company (Akter et al., 2016; Dobby et al., 2020). It can be measured by profit and sales revenue (Charoensukmongkol & Pandey, 2023; Halawani et al., 2020) or measurement of financial, innovation, structural and customer performance (Salehzadeh et al., 2017; Lal and Bhardwaj. 2020; Tawab and Issor, 2019; Sampaio, 2021; Zhang et al., 2021). Many researchers investigated the relationship between improvised capacity and company performance in this regard, but did not reach consensus (Akgu'n et al., 2007; Best Goderham, 2015). As environmental changes increase, crises increase. A crisis will have negative effects such as damaging the company's reputation and decreased performance. According to crisis management theory and dynamic ability, improvisation has an important impact on prevention and response before a crisis. It can also eliminate or reduce the threat and damage caused by the crisis (Mitroff et al., 1988; Pearson and Claire, 1998). Therefore, the ability to improvise can improve the performance of the company. Improvisation in particular enables companies to respond quickly and efficiently in the face of emergencies, minimizing potential losses and potentially creating opportunities for development, thereby increasing the company's competitiveness in the market. However, since improvised decisions are not fully addressed, mistakes can increase stress and anxiety in the company, making employees worry about their future careers. Therefore, this research will examine In the relationship between the ability to improvise and the performance of the company based on the immediate and creative dimensions of improvisation (Liao et al., 2023).

Based on this, we can assume:

Hypothesis 2: Strategic improvisation affects organizational performance.

Hypothesis 3: Strategic improvisation mediates the relationship between the ability to improvise strategically and organizational performance.

Figure 1 - Conceptual model of research (researcher-made source)

٤.٤ Research Methodology

The current research is applied research in terms of purpose, as it investigates the impact of the ability to improvise strategically and its impact on strategic improvisation and organizational performance. The population of the study included managers and employees of marketing and marketing and strategic staff of Iraqi technology companies who were considered infinite. Since there is no statistical population, using the Morgan table, a sample of 384 employees and employees from different technology companies was selected in the form of the available probability sampling method.

A research data collection tool is a researcher-made questionnaire. The questionnaire consists of several parts. The first part concerns the demographics of respondents and includes questions about the level of education, gender, and career in tech companies, and years of presence in tech companies. The second part was related to the items of the questionnaire. Experience variables were also measured based on the Likert scale. The five-point scale is completely agreed, I agree, I have no opinion, I disagree, I completely disagree, it was scored. Questions of the ability to improvise are taken from Vera et al . (2016) Organization performance questions taken from Salehzadeh et al. (2017), John et al. (2022) Strategic Improvisation Questions Taken from Mamedio et al . (2022). In order to determine the validity of the questionnaire, the guaranteed validity of the questionnaire was used. The correctness of the test content is usually determined by experts in the subject under study. The correctness of the content of this questionnaire was worked out by supervisors and consultants, books and articles related to the research were studied and the necessary information items were determined. Finally, 279 completed questionnaires were collected. The data was collected using SPSS software. It was analyzed. Confirmatory analysis with modeling of structural equations was then used to measure it.

Results

In Table 1, descriptive statistics related to demographic and demographic characteristics by gender, age and educational degree are presented.

Table 1 Demographics

Percentage	abundance	Parameter
88/17	246	Man sex
11/83	53	Wife
100	279	total
20/43	57	manager
79/56	222	employee
100	279	total
65/60	183	Bachelor
29/39	82	Master
5/1	14	Doctor
100	279	Total

According to the presented table, it can be seen that 246 (88.17%) are males and 53 (11.83%) are females. Of the 279 selected samples, 57 held managerial positions in the company. Also, at the educational level, 183 (65.60%) have a bachelor's degree or less, 82 29.39% have a master's degree and 14 (5.1%) have a doctorate degree.

In order to deductively analyze the data and find the relationships between variables, the structural equation modeling method with a partial least squares approach and PLS software was used to measure the model in three stages, measurement, structural and general models. In the model of measuring the reliability of research questions, the common criteria of Cronbach's alpha and coreliability (CR) were used. The convergence validity of the compositions was measured by the Extended Contrast Mean (AVE). For Cronbach alpha, the standard should be higher than 0.7 (Cronbach, 1951), and for standard composite reliability, it should be higher than 0.6 (Bagozzi and Yi, 1988). The correlation between hidden variables must be higher than 0.5 (Fornell and Larcker, 1981). The validity and reliability of all search variables listed in Table 2 are above the criteria and are confirmed. The differentiated validity results of the measurement models are presented in Table 2, indicating the appropriate variation of the measurement models .

Table 2. Measuring reliability and validity

attack	Avi	Alpha	Index Name
< 0/7	< 0/5	0/7<	Acceptable fit
0/760	0/507	0/798	Strategic improvisation capabilities
0/791	0/504	0/873	Strategic improvisation
0/756	0/580	0/801	performance

Table 3. Differentiated validity assessment matrix by Fournell and Larker method

The ability to improvise strategically	Strategic marketing improvisation	Performance improvisation
Strategic improvisation capabilities	0/712	
Strategic improvisation	0/514	0/708

After measuring the correctness and reliability of the measurement model, the structural model was analyzed. The measurement parameters of the measurement model are: significance coefficient (T-values), determination coefficient (R2), predictive power coefficient (Q2). The first criterion for the suitability of a structural model is the significance coefficients. The significance coefficients of all research hypotheses should be more than 1.96. This shows that all measures and relationships between structures are important at a 95% confidence level.

Figure 2.

After examining the suitability of the measurement models and the structural model and obtaining the appropriate suitability of the models, the research hypotheses are examined and tested. Therefore, the results of the semantic coefficients for each hypothesis, the standardized coefficients of the paths related to each hypothesis, and the results of the hypothesis examination are presented in Table (5). It should be noted that all hypotheses are fully summarized in one table so that the research outputs can be easily compared. It is possible. The results obtained from the analysis of the structural model in Table 8 show the R2 criterion of the variable in the model or dependent on it.

The results of this criterion show that according to the China study (1998), three criteria 0.19, 0.33 and 0.67 were introduced as standard values for weak, medium and strong R2 values. The suitability of the structural model was strong. In addition, in order to investigate the predictive power of the model, a criterion called Q2 (Stone-Geisser) criterion was analyzed. For this purpose, based on the research of Hensler et al. (2009) on the intensity of the predictive power of the model in the case of subjective structures, three values of 0.02, 0.15 and 0.35 were proposed for the weak, moderate and strong predictive power of the model, and considering the results of this criterion in Table (4), the following can be concluded: the model has a "strong" predictive power.

Table 4- R2 (R squares) and Q2 values (Stone-Geisser)

performance	Strategic improvisation
٠/٣٤٥	٠/٢٦٥ Recommendation 2
٠/٣١٨	٠/٢٥٨ Q2

Fits the general model

The GOF standard is proposed to fit the overall model. Three values of 0.01, 0.25 and 0.36 were proposed in three levels of weak, medium and strong to fit the general model. Given that the overall model fit is 0.43, the overall fit of the model is very strong.

Table 5 - Testing the hypotheses of the research model

Premise	relationship	Estimate	T Statistics	
H1	The ability to improvise strategically ← Strategic improvisation	٠/٥١٥	١٣/٨١٤	
H2	Strategic improvisation Improvisation of performance←	٠/٥٢٤	١٥/٦٦٧	
H3	The effect of the ability to improvise strategically on performance by means of strategic improvisation	٠/١٠٣	٢/٨٢٢	

)ns = no significant, *p<.05, **p<.01, ***p<.001(

Based on the results in Table 5, the significance level value between the variables of strategic improvisation and strategic improvisation capabilities was reported. There is a statistically significant and direct relationship between the variables of strategic improvisation capabilities and strategic improvisation. According to the t-coefficient, the variables of the capabilities of strategic improvisation and strategic improvisation. In terms of confirming the positive relationship between them, it can be said that with an increase in one unit, the variable of strategic improvisation and strategic improvisation increased by 0.515%. As a result, with 95% certainty, strategic improvisation abilities have an impact on strategic improvisation. Based on the results in Table 5, the significance level value between the strategic improvisation and performance improvisation variables was reported. As a result, there is a statistically significant and direct relationship between the variables of strategic

improvisation and performance. According to the t-coefficient, the variables of strategic improvisation and performance in terms of confirming the positive relationship between them, it can be said that with an increase of one unit of the strategic improvisation variable, the performance increased by 0.524%. As a result, with 95% certainty, strategic improvisation has a positive and significant impact on performance improvisation, so the research hypothesis is confirmed .

٦.١ Conclusion

This study was conducted with the aim of investigating the evolution of the strategic improvisation capabilities model in Iraqi technology companies. The current study method quantitative and data collection tool is a questionnaire. After collecting the questionnaires, the information related to them was entered into the SPSS23 program . After entering the questionnaire data into the program, a summary of some statistical indicators related to demographic variables was provided.. In the study of the first goal of identifying strategic improvisation capabilities, the results showed that the value of the significance level of the first goal is less than 0.05, so it can be said that individual capabilities, executive capabilities, structural and administrative capabilities are the dimensions of strategic improvisation capabilities. Among them individual capabilities (T=29.084) have the greatest impact, then executive and structural capabilities (T=24.908) and finally managerial capabilities (T=20.087) exist. The relationship between strategic improvisation and strategic improvisation capabilities increased by 0.515%. Kanha et al. (2020) showed that improvisation abilities can be one of the factors affecting an organization's leadership and human resources and increasing the agility of the organization. Vera et al. (2016) also showed that improvisation abilities can be easily implemented in an organization if they are knowledge-based. John et al. (2021) stated that the improvised ability to be organizational readiness will lead to improved innovation performance .

Also, in this study, when examining the second hypothesis, the effect of the ability to strategic improvisation showed that the significance level of the second goal is less than 0.05, so it can be said that the ability to improvise strategically has a positive effect on strategic improvisation. In line with these findings, Tabraei and Khashaei (2016) showed the effect of this variable in complex environments. Falkmir and Sandberg (2018) mentioned the implementation of strategic improvisation as an art. Mamadio et al. (2022) on strategic improvisation and the need to implement it in the organization .

On the other hand, the impact of strategic improvisation on organizational performance and its components has been confirmed . The results of this study are related and in line with the following research. Karaskmngel (2022) and Adamko et al. (2018) also showed that improvisation can improve organizational performance. Similarly, Palatz et al. (2021) Improvisation as one of the factors of new and optimal performance in the organization. Harandi (2017) shows that improvisation and strategies based on it improve the performance of technology companies. Strategic improvisation is also the mediator between strategic improvisation and improvisation of organizational performance .

Theoretical implementation

First, strategic improvisation occurs when three parts are combined: a clear framework (composition), a professional interpretation (interpretation), and situational adaptation based on certain possibilities and conditions (improvisation). These three parts must interact with each other. Second, an examination of the relationship between improvised ability and company performance clarified the different effects of the two dimensions of improvised ability on performance. Third, the study sheds light on the relationships between strategic improvisation, improvisation, and performance, and reveals the mediation mechanisms of improvised ability and internal paths. The more prepared the organization is to improvise, more strategic ways will be opened for managers to exploit so that they can increase the organization's performance.

٦.٢ Practical implementation

Based on the results of this study, we make three suggestions to improve the improvisation ability and performance of the company. In the face of a rapidly changing external environment, especially unforeseen emergencies, companies must be effective and react quickly to avoid economic losses. Therefore, technology companies must actively change their strategies and develop the ability to improvise. First, companies can By constantly studying the environment, choose the right strategies and focus on their strategic operations. The ability to improvise creates an organization's readiness index score to improvise as a way for managers to test their organization for improvised readiness against specific strategic requirements. Strategic improvisation is a creative concept that combines planning, strategy and improvisation, allowing managers to adapt to reality in a predetermined structure. Second, companies can pay attention to enhancing work and supporting trust in

employees to improve their creativity. They can encourage communication between departments, fully empower employees to enjoy free decision-making rights and opportunities, provide resources to support employee initiatives, and recognize and reward their innovative achievements. This allows managers to bridge the gaps of strategic improvisation between their readiness For example, they can use modern Internet technology to enhance simulation exercises, save resources to drive innovative activities within the company, and avoid excessive rigor in keeping up with innovation.

٦,٧ Limitations and future suggestions for research

Each research has a series of constraints in its heart that appear in the way of its realization and confront the research with problems that make it difficult to generalize the results. The current study is no exception to this rule and had the following limitations. The statistical collection was limited to a cross-sectional study and decreased in terms of costs and time constraints. Different interpretations of questionnaire items can lead to biased answers. Based on the results of this study, in this section, an attempt was made to express practical suggestions. It is proposed to study the impact of strategic improvisation capabilities in technological companies on the organization's readiness to deal with possible crises through training. It proposes to investigate the impact of strategic improvisation capabilities in technology companies through effective communication and seamless relationships with internal and external stakeholders in order to enhance performance. It proposes to investigate the impact of strategic improvisation capabilities in technology companies on the ability of managers to create and implement new strategic plans. Future researchers also suggest conducting the current study in small, medium and large enterprises and comparing its results with the current research.

استعراض

الهدف: تتزايد التغيرات في السوق بسرعة وأصبحت تقنيات المنتجات أكثر تعقيدا ، مما يجعل من الصعب على المؤسسات التجارية اتخاذ قرارات سريعة وتخطيط استراتيجي. يمكن أن تؤدي هذه التغيرات في الشركات التكنولوجية أيضا إلى أزمات. لذلك ، هدفت الدراسة الحالية إلى التحقق في تأثير القدرة على الارتجال الاستراتيجي على الارتجال والأداء التنظيمي في شركات التكنولوجيا العراقية.

المنهجية: طريقة البحث كمية. يتكون مجتمع البحث من كبار المديرين وخبراء شركات التكنولوجيا. الشركات التي لديها حوالي ١٠ سنوات من الخبرة في التواجد الرسمي في العراق. تم تطوير استبيان مكون من ٣٦ سؤالاً لقياس الفئات الرئيسية. باستخدام جدول مورغان تم اختيار ٣٨٤ مديرا وموظفا وموظفا في شركات التكنولوجيا على شكل طريقة أخذ العينات الاحتمالية المتاحة. نموذج البحث والعلاقة بين المتغيرات في كل فرضية من الفرضيات التي تم الحصول عليها من النموذج ، تم اختبار بنية سببية باستخدام تقنية المربعات الصغرى الجزئية (PLS) وتم تأكيد النتائج المتعلقة بالحمل العامل القياسي للمتغيرات المعروضة.

النتائج: أظهرت النتائج أن قدرة الارتجال الاستراتيجي تؤثر على الارتجال الاستراتيجي. كما يؤثر الارتجال الاستراتيجي على الأداء التنظيمي. يتوسط الارتجال الاستراتيجي في العلاقة بين القدرة على الارتجال الاستراتيجي والأداء التنظيمي.

الخلاصة: في مواجهة بيئة خارجية سريعة التغير ، وخاصة حالات الطوارئ غير المتوقعة ، يجب أن تكون الشركات فعالة وتتفاعل بسرعة لتجنب الخسائر الاقتصادية. لذلك، يجب على شركات التكنولوجيا تغيير استراتيجياتها بنشاط وتنمية القدرة على الارتجال. ستساعد هذه النتائج شركات التكنولوجيا العراقية على اتخاذ قرارات أفضل في الأسواق الديناميكية وزيادة أدائها التنظيمي من خلال تحسين قدراتها على الارتجال.

الكلمات المفتاحية: القدرة على الارتجال، الارتجال الاستراتيجي، الأداء التنظيمي، الشركات التكنولوجية

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