

# The Mediating Role of Strategic Improvisation in the Relationship between Strategic Learning and Organisational Excellence

**Bashar Abbas Alhimyari<sup>a</sup>, Roqaya Kazem Al-Murshidi<sup>b</sup>**, <sup>a</sup>Department Business Administration, University of Babylon-Iraq, <sup>b</sup>Department of Materials Management, Babylon Technical Institute, Middle Euphrates University, Babylon-Iraq, Email: [bus.bashar.abbas@uobabylon.edu.iq](mailto:bus.bashar.abbas@uobabylon.edu.iq), [zzaid6394@gmail.com](mailto:zzaid6394@gmail.com)

This research seeks to test the relationship of strategic learning, with its dimensions represented in the generation, dissemination, interpretation and implementation of strategic knowledge. Further, with organisational superiority in its dimensions of operations, focus on the market and customers, and creativity and innovation, through strategic improvisation. Using the intentional sample, (131) forms were distributed to the administrative leaders in the Kufa Cement Factory, the response rate reached (100%). In order to process this data and information, the researchers used a number of statistical methods, namely: a processor (Excel Tables); the statistical program AMOS V.23, and; Path Analysis, as it is an effective means of calculating direct and indirect effects, and the regression coefficients are unstandardized Coefficients for the purpose of calculating direct and indirect effects. The importance of the current research stems from its handling of the industrial sector; considered the most important and effective in the process of economic development. It is relevant also to the link between the three variables, as there is no previous study that has dealt with or combined these variables. The results of the current research show that there are two positive and significant correlation and impact relationships between the researched variables (strategic learning, strategic improvisation and organisational excellence). The organisation builds the research sample for strategic learning in its dimensions, strategic improvisation in its dimensions, and organisational excellence in its dimensions, which indicates that members of the organisation's research sample understand the importance of the role these variables play in the organisation's success and excellence.

**Key words:** *Strategic learning, Strategic improvisation, Organisational excellence.*

## **Introduction**

Rapid developments in the business environment and the orientation towards learning and knowledge have created many challenges for organisations, which have made it difficult to survive and continue, unless an organisation has what qualifies them to meet these challenges, as strategic learning is a tool for the development of societies, as are the other resources that are owned by organisations and others. Although the concept of strategic improvisation already existed, it became obvious at the end of last century and the beginning of the current century that it was one of the most important strategic approaches for facing challenges and keeping pace with rapid changes. Organisational excellence is also considered one of the concepts with ancient historical roots, but interest in it was not as clear as is the case today. The changes that have taken place in the business environment and the intensification of competition have had a significant role and impact in the increasing interest in and adoption of them by contemporary organisations. The Iraqi General Cement Company - Southern Cement Cooperative / Kufa Cement Factory was chosen as a field of study for the importance of this sector as industrial organisations are the main pillar for the growth and recovery of the economy in the country.

## **The Research Problem is Represented by the Following Questions:**

What is the nature of the relationship between strategic improvisation and strategic learning in the researched organisation, the research sample?

What is the effect of this relationship on achieving organisational excellence in the researched organisation?

What is the nature of the relationship between strategic learning and organisational excellence that occurs by centering strategic improvisation?

## **The Importance of the Research:**

The importance of the research stems from its handling of the industrial sector, as this sector is considered the most important and effective in the process of economic development; it is noted that the developed countries that reaped and still reap the fruits of economic progress are the countries that worked to develop their industrial sector, which had the top spot in the strategic priorities of these countries. Also importance is attached to the linking between the three variables of strategic learning, organisational excellence and strategic improvisation, as there is no previous study that has dealt with or combined these variables, to the extent of the

researchers' knowledge, which justifies the initiation of the study and the testing of the research variables.

### **Research Objectives:**

To display theoretical frameworks related to the research variables and clarify their concepts. To know the extent of the organisation in the researchers' sample (the General Iraqi Cement Company - Kufa Cement Factory) adopting to the concept of strategic learning and employing it in achieving organisational excellence through strategic improvisation.

### **Research Hypotheses:**

**The first main hypothesis:** There is no significant relationship of influence for strategic learning in organisational excellence. Four sub-hypotheses have branched out from this hypothesis.

**The Second Main Hypothesis:** There is no significant effect relationship of strategic learning in strategic improvisation. Four sub-hypotheses have branched out from this hypothesis.

**The Third Main Hypothesis:** There is no significant effect relationship of strategic improvisation on organisational excellence. Four sub-hypotheses have branched out from this hypothesis.

**The Fourth Main Hypothesis:** Strategic improvisation does not mediate the relationship between strategic learning and organisational excellence. As for the research community, the total number of employees of the General Company for Iraqi Cement - Southern Cement Cooperative / Kufa Cement Factory is 1869 employees, distributed between 1068 employees divided into administrators and workers, and 670 employees as a contract, divided between administrators and workers, and administrative leaders. The work place is divided into 85 divisions and 21 departments, 21 assistant department heads, a laboratory director (1) and an assistant director (1), and thus the intentional research sample consists of 131 individuals from administrative leaders.

### **The Theoretical Side: Strategic Learning**

Coffman and Beer (2018) show that strategic learning is the process of using data and ideas drawn from a variety of methods of generating strategic knowledge, including evaluation and what contributes to decision-making about the strategy. While Gupta and Bose (2019) see strategic learning as the process of gaining the skills and capabilities necessary to achieve the

intended work goals, and making appropriate adjustments to the current strategy or developing new strategies, and strategic learning helps in converting information represented by organisational experiences into strategic knowledge, interpretation, distribution and implementation.

### **Dimensions of Strategic Learning**

The researchers believe that the dimensions of the study by Sirén et al. (2017) are appropriate or compatible with the nature of the current research and these dimensions are as follows:

#### ***Generate Strategic Knowledge***

Nonaka (2004) indicates that individuals are the ones who acquire, generate and are creative in knowledge, meaning that the organisation cannot do this without individuals, and therefore the organisation must stimulate the activities of acquiring and generating strategic knowledge that individuals perform, and provide them with an appropriate environment.

#### ***Spreading Strategic Knowledge***

Jerez-Gomez et al. (2005) indicate that the dissemination of strategic knowledge is a social exchange process, which refers to the exchange and sharing of strategic knowledge through interactions within and among organisational units. This is in order to ensure the penetration of new ideas throughout the entire organisation, and the dissemination of knowledge can take place formally and informally, horizontally (between departments) or vertically (multifunctional) within the organisation where different functional areas are directed through the process of disseminating job knowledge (De Clercq et al., 2010; Van der Bij et al., 2003)

#### ***Interpretation of Strategic Knowledge***

Berghman et al. (2013) and Tippins and Sohi (2003) point out that it is a process of making meaning, where contradictory assumptions and alternative interpretations are considered, and if necessary, action is needed to change behaviours and the way the organisation interprets strategic information. Interpreting the organisation's strategic knowledge allows for identifying important pieces of information and working to change its strategy and thus its performance.

### ***Implementing Strategic Knowledge***

Mertins et al. (2001) see that implementing strategic knowledge allows for individual and group learning processes that lead to the creation of new strategic knowledge. Widodo (2015) emphasises that there is a lot of strategic knowledge that is created in the organisation but not applied effectively, and this depends on the organisation's ability to implement strategic knowledge in the creative aspect, where it is a critical element in achieving competitive advantage.

### ***Strategic Improvisation***

Teoh and Wickramasinghe (2011) see that strategic improvisation is a way to deal with mistakes made by learning, as it represents an ongoing process that transforms ideas by integrating both the social and technical context of organisations. Ahmad Arshad et al. (2015; 2018) indicate that flexibility, adaptation to the environment, and innovation are some of the elements of strategic improvisation, as it involves a high degree of spontaneity and creativity in the convergence of the plan and its implementation; it is a conscious choice and not something that happens with opportunities. Strategic improvisation is not random, as there is an idea, a plan and a rhythm. Flexibility can be an improvisation mechanism that allows the organisation the ability to strategically improvise.

### **Dimensions of Strategic Improvisation**

The researchers believe that the study by Camara and Petrenko (2015) is appropriate or compatible with the nature of the current research and these dimensions are as follows:

#### ***Strategic Vigilance***

Strategic vigilance means inquiring about technological innovations, competitors' behaviours and strategies, and knowing new consumer desires. It also contributes to monitoring the environment, through accessing, testing and disseminating information with the aim of improving decisions in the organisation (Robert, 2017)

#### ***Strategic Agility***

Business organisations need strategic agility, as it is one of the fundamental requirements for the organisations' success and sustainability, as it strengthens organisations' ability to respond to changes in the business environment (Becker, 2007)

## **Bricolage**

### ***Building Solutions***

Building a solution means "doing it yourself", using available resources Baker and Nelson, (2005) define building the solution as having a resource-making behaviour and refusing to surrender in the face of challenges that require new resources, which means applying a mix of resources on hand and seizing new opportunities.

### ***Minimal Structure***

Kamoche and Cunha (2001) indicate that a minimal structure can be described as a small set of large bases, or more precisely, small structures can be defined as coordinating devices that attempt to focus individual activities around a common set of goals and deadlines and define the best way to reach these goals.

### ***The Concept of Organisational Excellence and its Dimensions***

Durrah et al. (2014) point out that looking at organisational excellence is the ability of organisations to create and prepare stimulating and correcting conditions, and to deal effectively with work performance problems, as well as providing growth opportunities. In the same context, Vigoda-Gadot and Beerli (2011) indicate that organisational excellence is represented in the organisation's ability to achieve continuous learning, talent development and efficient performance management capable of serving customers and meeting their requirements. The researchers believe that the following dimensions are appropriate or compatible with the nature of the current research: -

### ***Processes***

Operations are one of the important pillars on which the organisation is based and that are used in determining its strategic and competitive orientation, where processes include the degree to which organisational goals are achieved and actions are carried out through processes to reach those goals, thus achieving superiority and competitive advantage are accomplished by clarifying how the organisation's inputs are transformed into outputs that fulfil customer desires (Dahlgaard-Park & Dahlgaard, 2008).

### ***Focus on the Market and Customers***

Alvani et al. (2013) show that organisations seek to identify the market, establish marketing strategies and create strong relationships with customers. Customer needs and expectations

are defined by the organisation, as well as the relationship with them enhanced and their desires met (Mann et al., 2010).

### ***Creativity and Innovation***

Lewis and George (2008) explain that creativity is a set of ideas that can be used to solve problems creatively, quickly and at low cost. Creativity is not limited to product development but also includes improving work procedures in the organisation and developing it, which contributes to raising the level of performance and achieving customer satisfaction. Najm (2012) defines innovation as the possibility of finding solutions to a specific problem, or the possibility of presenting a new idea that adds value to the organisation and distinguishes it from other competitors.

### **The Practical Side: Testing the Research Hypotheses**

The researchers used Simple Regression Analysis to measure the effect of influence on relationships between variables. The significance of the influence force will be measured by the significance of the calculated values (t) of the simple regression coefficient, and the determination coefficient (R<sup>2</sup>) was used for the purpose of measuring the explanatory power of the independent variables in the dependent variable, through the statistical program SPSS V.23.

***The First Main Hypothesis:*** There is no significant effect relationship of strategic learning in organisational excellence. Four sub-hypotheses have branched out from this hypothesis.

**Table 1:** Analysis of the influence relationships of the main hypothesis

The coefficient of determination R <sup>2</sup>	The calculated value of (f) and its level of significance	The calculated value of (t) and its level of significance	Organisational excellence		Dependent variable  Independent variable
			$\beta$	$\alpha$	
<b>0.18</b>	<b>28.5**</b>	<b>5.34**</b>	<b>0.42</b>	<b>81.1</b>	Generate strategic knowledge
<b>0.175</b>	<b>27.3**</b>	<b>5.23**</b>	<b>0.46</b>	<b>1.55</b>	Spreading strategic knowledge

<b>0.12</b>	<b>17.2**</b>	<b>4.15**</b>	<b>0.39</b>	<b>1.90</b>	Interpretation of strategic knowledge
<b>0.26</b>	<b>45.4**</b>	<b>6.70**</b>	<b>0.60</b>	<b>1.14</b>	Implementing strategic knowledge
<b>0.29</b>	<b>51.6**</b>	<b>7.18**</b>	<b>0.74</b>	<b>0.53</b>	Strategic learning

**Source:** Preparing research based on the results of the electronic calculator

**The above table shows that:**

- 1- The organisational excellence will increase by (0.42) units, if the interest of the Kufa Cement Factory in the generation of strategic knowledge increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (5.34). It is a significant value at the mentioned level, and the calculated value of (F), which measures the significance of the regression model, is (28.5) which is a significant value at the level of (1%). The explanatory power of the regression model was (0.18), and this means that the generation of strategic knowledge explains (18%) of the changes that occur in organisational excellence, while the remaining percentage is related to other factors not included in the model. From the aforesaid, the researchers infer that the null hypothesis of the first sub-hypothesis is rejected in the sense that there is a significant relationship of influence to generate strategic knowledge in organisational excellence.
- 2- The organisational excellence will improve by (0.46) units, if the interest of the Kufa Cement Factory in spreading strategic knowledge increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient was (5.23), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (27.3), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.175), meaning that the dissemination of strategic knowledge explains its ratio as (17.5%) of the changes in organisational excellence, while the rest is related to other factors not included in the model. In view of this, researchers inferred to reject the null hypothesis of the premise of the second sub-sense, that there is significant effect of moral relationship to the dissemination of knowledge in strategic organisational excellence.
- 3- The organisational excellence will increase by (0.39) units, if the interest of the Kufa Cement Factory in the interpretation of strategic knowledge increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (4.15), a significant value at the mentioned level. The

calculated value of (F), which measures the significance of the regression model, was (17.2), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.12), meaning that the interpretation of strategic knowledge explains its ratio as (12%) of the changes that occur in organisational excellence, while the remaining percentage is related to other factors not included in the model. From the foregoing, the researchers infer that the null hypothesis of the third sub-hypothesis is rejected in the sense that there is an effect relationship of significance for the interpretation of strategic knowledge in organisational excellence.

- 4- The organisational excellence will improve by (0.60) units, if the interest of the Kufa Cement Factory in the implementation of strategic knowledge increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (6.70), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (45.4), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.26), meaning that the implementation of strategic knowledge explains its ratio as (26%) of the changes in organisational excellence, while the remainder is related to other factors not included in the model. From the foregoing, researchers infer that the null hypothesis of the fourth sub-hypothesis is rejected in the sense that there is an effect relationship of significance for the implementation of strategic knowledge in organisational excellence.
- 5- At the macro level, the organisational excellence variable will increase by (0.74) units, if the interest of the Kufa Cement Factory in the topic of enhancing strategic learning increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient reached (7.18), which is a significant value at the mentioned level. The calculated value (F), which measures the significance of the regression model was (51.6), which is a significant value at (1%) level. The explanatory power of the regression model was (0.29), which means that strategic learning explains (29%) of the changes that occur in organisational excellence, while the rest is related to other factors, not included in the model. From the above, researchers infer the rejection of the fourth main hypothesis, meaning there is an effect relationship of significance to strategic learning in organisational excellence.

***The Second Main Hypothesis:*** There is no significant effect relationship of strategic learning in strategic improvisation. Four sub-hypotheses have branched out from this hypothesis.

Table (2) below shows the simple regression analysis among the researchers' variables.

**Table 2:** Analysis of the influence relationships of the second main hypothesis

The coefficient of determination R2	The calculated value of (f) and its level of significance	The calculated value of (t) and its level of significance	Strategic improvisation		Dependent variable  Independent variable
			$\beta$	$\alpha$	
<b>0.21</b>	<b>34.70**</b>	<b>5.90**</b>	<b>0.36</b>	<b>2.25</b>	Generate strategic knowledge
<b>0.28</b>	<b>50**</b>	<b>7.06**</b>	<b>0.46</b>	<b>1.76</b>	Spreading strategic knowledge
<b>0.31</b>	<b>59**</b>	<b>7.68**</b>	<b>0.50</b>	<b>1.46</b>	Interpretation of strategic knowledge
<b>0.27</b>	<b>48.3**</b>	<b>6.95**</b>	<b>0.48</b>	<b>1.78</b>	Implementing strategic knowledge
<b>0.42</b>	<b>94.6**</b>	<b>9.73**</b>	<b>0.71</b>	<b>0.86</b>	Strategic learning

**Source:** Preparing research based on the results of the electronic calculator

\*\*Significant level (1%)

The preceding table shows the following:

1. The strategic improvisation will increase by (0.36) units, if the interest of the Kufa Cement Factory in the generation of strategic knowledge increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (5.90). This is a significant value at the mentioned level, and the calculated value of (F), which measures the significance of the regression model, was (34.70), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.21), this means that the generation of strategic knowledge explains a percentage (21%) of the changes that occur in strategic improvisation, while the rest is due to other factors not included in the model. From the foregoing, researchers infer that the null hypothesis of the first sub-hypothesis is rejected in the sense that there

is a significant relationship of influence to generate strategic knowledge in strategic improvisation.

2. The strategic improvisation will improve by (0.46) units, if the interest of the Kufa Cement Factory increases the spread of strategic knowledge by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient was (7.06). It is a moral value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, reached (50), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.28), which means that the dissemination of strategic knowledge explains its ratio as (28%) as one of the changes that occurs in strategic improvisation, while the rest is due to other factors that are not included in the model. The aforesaid inferred researchers to reject the null hypothesis of the premise of the second, in the sense that there is no significant effect of moral knowledge dissemination strategy in strategic improvisation.
3. The interpretation of strategic knowledge improves strategic improvisation by (0.50) units, if the interest of the Kufa Cement Factory increases in the interpretation of strategic knowledge by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (7.68), which is a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, is (59), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.31), meaning that the interpretation of strategic knowledge explains (31%) of the changes that occur in strategic improvisation, while the rest is due to other factors not included in the model. From the foregoing, the researchers infer that the null hypothesis of the third sub-hypothesis is rejected in the sense that there is an effect relationship of significance for the interpretation of strategic knowledge in strategic improvisation.
4. The strategic improvisation will improve by (0.48) units, if the interest of the Kufa Cement Factory increases in the implementation of strategic knowledge by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (6.95), which is a significant value. The calculated value of (F), which measures the significance of the regression model, is (48.3), which is a significant value at (1%) level. The explanatory power of the regression model is (0.27), this means that the implementation of strategic knowledge explains (27%) of the changes that occur in strategic improvisation, while the remaining percentage is due to other factors not included in the model. From the foregoing, researchers infer to reject the null hypothesis of the fourth sub-hypothesis, meaning there is an effect relationship of significance for the implementation of strategic knowledge in strategic improvisation.
5. At the macro level, the strategic improvisation variable will increase by (0.71) units, if the interest of the Kufa Cement Factory in the topic of enhancing strategic learning increases by one unit, knowing that this effect was significant at the level of (1%),

because the calculated value (t) of the regression coefficient reached (9.73), which is a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (94.6), which is a significant value at (1%) level. The explanatory power of the regression model was (0.42), which means that strategic learning explains (42%) of the changes that occur in strategic improvisation, and the rest is due to other factors not included in the model. From the foregoing, the researchers conclude that the fifth main hypothesis is rejected in the sense that there is a significant effect relationship of strategic learning in strategic improvisation.

**The Third Main Hypothesis:** There is no significant effect relationship of strategic improvisation on organisational superiority. Four sub-hypotheses have branched out from this hypothesis.

**Table 3:** Analysis of the influence relationships of the third main hypothesis

The coefficient of determination R2	The calculated value of (f) and its level of significance	The calculated value of (t) and its level of significance	Organisational excellence		Dependent variable
			$\beta$	$\alpha$	
					Independent variable
<b>0.28</b>	<b>49.7**</b>	<b>7.05**</b>	<b>0.56</b>	<b>1.40</b>	Strategic alertness
<b>0.22</b>	<b>36.0**</b>	<b>6.00**</b>	<b>0.47</b>	<b>1.70</b>	Strategic agility
<b>0.34</b>	<b>65.9**</b>	<b>8.11**</b>	<b>0.66</b>	<b>1.10</b>	Build the solution
<b>0.50</b>	<b>129.80</b>	<b>11.40**</b>	<b>0.81</b>	<b>0,47</b>	Minor structural
<b>0.44</b>	<b>102.8**</b>	<b>1.208**</b>	<b>0.85</b>	<b>0.35</b>	Strategic improvisation

**Source:** Preparing research based on the results of the electronic calculator

1. The organisational excellence will increase by (0.56) units, if the interest of the Kufa Cement Factory increases with the enhancement of strategic alertness by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient was (7.05), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (49.7), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.28), which means that strategic alertness explains its ratio (28%) of the changes that occur in organisational excellence, while the remaining percentage is

due to other factors not included in the model. Thus presented, the researchers infer the rejection of the null hypothesis of the first sub-hypothesis meaning there is a significant effect relationship correlation of strategic alertness in organisational excellence.

2. The organisational excellence will increase by (0.47) units, if the interest of the Kufa Cement Factory increases with the enhancement of strategic agility by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression factor was (6.00), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, is (36), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.22), meaning that the strategic agility explains what its ratio (22%) of the changes are that occur in organisational excellence, while the remaining percentage is due to other factors not included in the model. The preceded inferred the rejection of the null hypothesis of the second sub-hypothesis in the sense that there is a significant effect relationship of strategic agility in organisational excellence.
3. The organisational excellence will increase by (0.66) units, if the interest of the Kufa Cement Factory increases in building the solution by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient reached (8.11), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (65.9), which is a significant value at the level of (1%). The explanatory power of the regression model was (0.34), which means that building the solution explains its ratio of (34%) of the changes that occur in organisational excellence, while the remaining percentage is due to other factors not included in the model. From the foregoing the researchers infer the null hypothesis of the third sub-hypothesis with the meaning there is a significant effect relationship for building the solution in organisational excellence.
4. The organisational excellence will increase by (0.81) units, if the interest of the Kufa Cement Factory in strengthening the small structure increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient was (11.40), a significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, reached (129.80) which is a significant value at the level of (1%). The explanatory power of the regression model was (0.50), which means that the minimal structure explains its ratio (50%) of the changes that occur in organisational excellence, while the remaining percentage is due to other factors not included in the model. From the foregoing the researchers rejected the null hypothesis of the third sub-hypothesis meaning there is a significant effect relationship of minimal structural in organisational excellence.
5. At the macro level, the organisational excellence variable will increase by (0.85) units, if the interest of the Kufa Cement Factory in the topic of enhancing strategic improvisation increases by one unit, knowing that this effect was significant at the level of (1%), because the calculated value (t) of the regression coefficient reached (10.1), which is a

significant value at the mentioned level. The calculated value of (F), which measures the significance of the regression model, was (102.8), which is a significant value at (1%) level. The explanatory power of the regression model was (0.44), which means that strategic improvisation explains (44%) of the changes that occur in organisational excellence, while the rest is due to factors other than those included in the model. From the above, researchers infer the rejection of the third major hypothesis, meaning there is a significant effect relationship of strategic improvisation in organisational excellence.

***The Fourth Main Hypothesis: Strategic Improvisation does not Mediate the Relationship between Strategic Learning and Organisational Excellence***

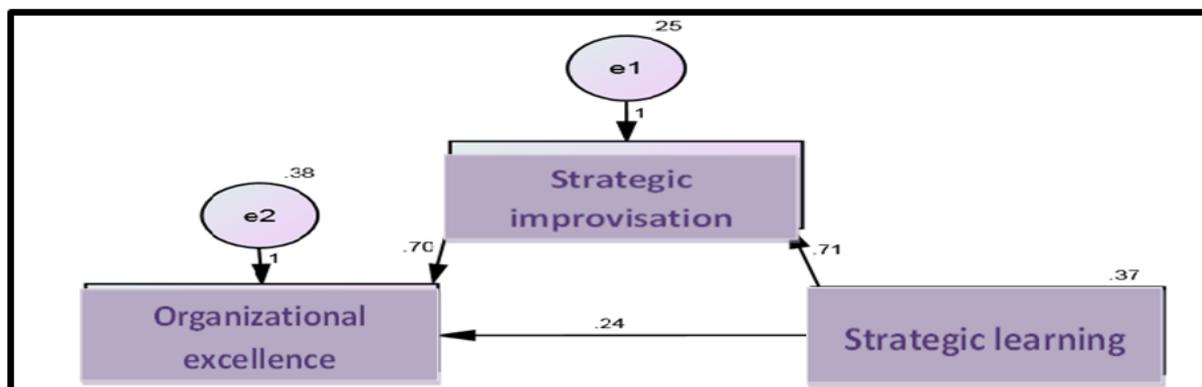
In order to test the hypotheses of indirect influence among the study variables, the researchers used Path Analysis, as it is an effective means in calculating direct and indirect effects, as shown in Table 4 and figure 1 below, knowing that they relied on non-standard regression coefficients (Unstandardised Coefficients) for the purpose of calculating direct and indirect effects.

**Table 4:** Non-normative effects

Non-normative effect			Estimate	S.E.	C.R.	P
Strategic improvisation	<---	Strategic learning	0.71	0.072	9.77	***
Organisational excellence	<---	Strategic improvisation	0.70	0.108	6.51	***
Organisational excellence	<---	Strategic learning	0.242	0.117	2.07	0.04

**Source:** Preparing research using electronic computer outputs

**Figure 1.** Intermediate variable test



- 1- The non-normative value of the strategic learning regression coefficient on organisational excellence was (0.24) (direct impact), which is a significant value at (5%), because the critical value (C.R) reached (2.07), which is a significant value at the mentioned level.
- 2- The non-standard value of the strategic learning regression coefficient on strategic improvisation was (0.71), which is a significant value at (1%), because the critical value (C.R) reached (9.77), which is a significant value at the mentioned level.
- 3- The non-normative value of the strategic improvisation regression coefficient on organisational superiority was (0.70), which is a significant value at (1%), because the critical value (C.R) reached (6.51), which is a significant value at the mentioned level.
- 4- The value of the indirect non-normative effect of the smart organisation model on strategic performance by averaging the strategic position was (0.50).
- 5- The total non-standard effect (direct and indirect) of strategic learning in organisational excellence can be stated as  $(0.24 + 0.50 = 0.74)$ . This indicates that strategic improvisation contributes to increasing the impact of strategic learning on organisational excellence. For the purpose of testing the significance of indirect effects, researchers have two methods available (Baron, 1968; Preacher & Hayes, 2008). The first method was strongly criticised by Preacher and Hayes (2008), and they presented a new method that adopted two basic conditions:
  - A. Bootstrap procedure for indirect effect, meaning that the relationship between the independent variable and the dependent variable across the intermediate variable must be significant (less than 5%), and with the benefit of the statistical program AMOS V.23, it was found that the level of significance of the indirect effects was (0.006), or less than (5%), which fulfils the first condition knowing that the standard error of the indirect effect relationship was (0.100), and the value of (t) was (4.81).
  - B. The Bootstrap is performed for the confidence interval (lower level and higher level), and in this case, the two values must be not mediated, so that the results can be reassured. It was found from the analysis that the value of the minimum confidence period reached (0.340), while the value of the maximum confidence period reached (0.674), which fulfils the second condition. The researchers infer from the above analysis rejecting the fourth main hypothesis, in the sense of mediating strategic improvisation in the relationship between strategic learning and organisational excellence, and this contributes to increasing its strength as well.

## **Conclusions and Recommendations**

### ***Conclusions***

1. The Kufa Cement Factory is concerned with self-generated knowledge in order to use its existing products to enter new markets and not produce new products for the same markets or enter new markets with new products.
2. There is close cooperation between the lab departments for the purpose of exchanging strategic knowledge between them.
3. The factory has high flexibility for the purpose of facing various environmental fluctuations.
4. Lab workers have the ability to influence various lab strategies and policies.

### ***Recommendations***

1. Business organisations must find ways to encourage individuals to access various strategic areas of knowledge to maintain the success and superiority of organisations.
2. The need for organisations to improve their ability to search for strategic knowledge and reassemble it, to reduce the costs of acquiring strategic knowledge.
3. Increasing the research organisation's interest in building a "bricolage" solution because of its important role in stimulating and developing possible solutions quickly and creatively.
4. The necessity of the company in the research sample realising the importance of strategic learning and its impact on business success and reducing losses, in addition to its impact on the sustainability and strengthening of customer loyalty, and in addition to the need to pay attention to its development; this is done through several mechanisms, including:
  - A. Create a section under the title 'Strategic Learning Section' within the organisational structure of the Kufa Cement Factory, and work to link other departments related to the aforementioned section.
  - B. Conducting periodic follow-up to the aforementioned section in paragraph (A) through the continuous pursuit by the Southern Cement Aid / Kufa Cement Factory management of identifying deficiencies and inefficiencies in the implementation of strategic learning, and then taking the necessary measures to address them.

## REFERENCES

- Ahmad Arshad, D., Razalli, M. R., Bakar, A., Julienti, L., Ahmad, H., & Mahmood, R. (2015). Exploring the incidence of strategic improvisation: evidence from Malaysian government link corporations. *Asian Social Science*, 11(24), 105–112.
- Alvani, S., Beygi, R., Memarzadeh, G., & Rouzbahani, M. (2013). The Influence of Native Model of Organizational Excellence on Iranian Governmental Organizations. *Journal of Basic and Applied Scientific Research*, 3(4), 1004–1010.
- Arshad, D., Zakaria, N., Abdul-Kadir, K., & Ahmad, N. (2018). Linkage between Flexibility and SMEs Performance: Does Improvisation Matter? *MATEC Web of Conferences*, 215, 2003.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Baron, H. (1968). *From Petrarch to Leonardo Bruni: Studies in humanistic and political literature*. Published for the Newberry Library by the University of Chicago Press.
- Becker, B. (2007). Strategic Agility: The Ultimate Competitive Advantage. *Product Development Advantage Group, LLC*.
- Berghman, L., Matthyssens, P., Streukens, S., & Vandenbempt, K. (2013). Deliberate learning mechanisms for stimulating strategic innovation capacity. *Long Range Planning*, 46(1–2), 39–71.
- Camara, A., & Petrenko, O. V. (2015). Strategic Improvisation: Antecedents and Outcomes of Immediate Action in Response to Critical Events. *Academy of Management Proceedings*, 2015(1), 17425.
- Coffman, J., & Beer, T. (2018). Strategic Learning. Center for Evaluation Innovation.
- Dahlgaard-Park, S. M., & Dahlgaard, J. J. (2008). A strategy for building sustainable innovation excellence—a Danish study. In *Corporate sustainability as a challenge for comprehensive management* (pp. 77–94). Springer.
- De Clercq, D., Dimov, D., & Thongpapanl, N. T. (2010). The moderating impact of internal social exchange processes on the entrepreneurial orientation–performance relationship. *Journal of Business Venturing*, 25(1), 87–103.
- Durrah, O., Khmour, N., & Al-Abbadi, S. (2014). The impact of the implementation of organizational excellence policies on the contextual performance: A case study in the

- cardiovascular surgery hospital. *International Business Research*, 7(9), 17.
- Gupta, G., & Bose, I. (2019). Strategic learning for digital market pioneering: Examining the transformation of Wishberry's crowdfunding model. *Technological Forecasting and Social Change*, 146, 865–876.
- Jerez-Gomez, P., Cespedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: a proposal of measurement. *Journal of Business Research*, 58(6), 715–725.
- Kamoche, K., & Cunha, M. P. E. (2001). Minimal structures: From jazz improvisation to product innovation. *Organization Studies*, 22(5), 733–764.
- Lewis, C. C., & George, J. F. (2008). Cross-cultural deception in social networking sites and face-to-face communication. *Computers in Human Behavior*, 24(6), 2945–2964.
- Mann, R., Mohammad, M., & Agustin, A. T. (2010). *Understanding business excellence: An awareness guidebook for SMEs*. Asian Productivity Organization.
- Mertins, K., Heisig, P., Vorbeck, J., Mertins, K., Heisig, P., & Vorbeck, J. (2001). *Knowledge management: Best practices in Europe*.
- Nonaka, I. (2004). *Hitotsubashi on knowledge management*. John Wiley & Sons (Asia).
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Robert, R. (2017). *Systèmes d'information et management des organisations*.
- Sirén, C., Hakala, H., Wincent, J., & Grichnik, D. (2017). Breaking the routines: Entrepreneurial orientation, strategic learning, firm size, and age. *Long Range Planning*, 50(2), 145–167.
- Teoh, S. Y., & Wickramasinghe, N. (2011). A Strategic Improvisation Model: A Case Study Of Healthcare Information Systems Design. *PACIS*, 190.
- Tippins, M. J., & Sohi, R. S. (2003). IT competency and firm performance: is organizational learning a missing link? *Strategic Management Journal*, 24(8), 745–761.
- Van der Bij, H., Michael Song, X., & Weggeman, M. (2003). An empirical investigation into the antecedents of knowledge dissemination at the strategic business unit level. *Journal of Product Innovation Management*, 20(2), 163–179.
- Vigoda-Gadot, E., & Beerli, I. (2011). Change-oriented organizational citizenship behavior in



public administration: The power of leadership and the cost of organizational politics.  
*Journal of Public Administration Research and Theory*, 22(3), 573–596.