

# Investigating the Impact of Strategic Orientations for Organizations and Information Systems on Performance (Profitability, Satisfaction)

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#### Abstract

The study aims to measure the impact of strategic orientations for organization on the financial performance (profitability) and the performance of information systems (satisfaction) for the Jordanian insurance companies. A particular questionnaire has been developed for the study and distributed to (227) executive managers. Study results confirm that organizational strategies have an impact on financial performance but they did not impact the performance of information systems. The study also confirmed that the strategic orientations for information systems have an impact on both of profitability and satisfaction.

**Keywords:** organizational strategies, information system strategies, analyzer's strategy, prospector's strategy, and defender's strategy.

# 1- Introduction:

The huge development of information and communication technology (ICT) has made a challenge for organizations management, due to an increase in the complexity of internal structures of those organizations. This in turn, cause an increase in managerial and organizational burdens, so the need became urgent to make changes, which are more consistent with the nature of the organizational variables through building a strategy that align between organizational properties, from one hand and information technology on the other hand, for the purpose of enhancing organizational performance. (Iman & Harttono, 2007; Kearns & Lederer, 2003; Scott, et al., 2006; Sichuan, et al., 2006; Tallon, 2007)

Many researchers tried to justify the amount of spending that managerial organizations endures on information technology, and the results refer to two different outcomes, one confirm that there is no justification for this spending, as it shows no existence of impact at significant value for the spending on information technology (Nudurupati & Biotitic, 2005; Sharma, 2008), and the other, confirm that there is justification for this size of spending, where some studies confirmed the existence of impact at significant value for the size of spending on improving the quality of used systems (Clarke R. & Marcilio M., 2006).

Some researchers pointed out the importance of restudying the relationship between information technology from one hand, and productivity and organizational performance in the different economical sectors on the other hand, they showed a bit of inconsistency in the form of this relationship (Arthur & Randall, 2008; lee & Bauru, 1999; Spencer, et al, 2009; Tawaha, 2015; Venkatesh, et al, 2007), where some evidences found to suggest that spending on information technology improves profitability and productivity. Many studies have tried to establish an initial hypotheses in an attempt to explain the importance of aligning between organizational strategies and information systems strategies in achieving the desired impact, and indicated that the alignment between strategic orientations for information technology and strategic orientations for organization determines the extent of success of some organizations to achieve an improvement in their performance.

As a confirmation to the above finding, this study aimed to measure the impact of each of the strategic orientations of organization and the strategic orientations for information systems in enhancing organizational performance, and this idea will be supported by reviewing some of the previous studies, which stressed the importance of this alignment (Bergeron, et al., 2004; Byrd, Pitts, Adrian, & Davidson. 2008; Qrunfleh & Tarafdar, 2014; Shih & Santacreu, 2009; Venkatesh, et al., 2007).

# 2- Problems of the Study:

Performance management consider a key factor that leads to stability, growth, and superiority in the different organizations; it must look for the factors that include outstanding performance, and so some modern studies have confirmed the need to re-examine or study the factors that have impact on organizational performance (Botella, et al., 2009; Byrd, et al. 2008; Calderon, et al., 2011; Özer & Tinaztepe, 2014; Qrunfleh & Tarafdar, 2014; Tawaha, 2016). Several other studies added that the noticeable expansion in the acceptance of information technology in organizations, regardless of the uncertainty about the extent of its participation in improving the performance drive the researchers to concentrate on studying this topic again (Aral & Weill, 2007, Huang & Qing, 2007; Nakata et al., 2008).

Some studies also referred to changing the variables measurement methods, as a result new criteria



have been adopted in defining the strategic orientations (F. Lai, et al., 2007; Pleshko & Nickerson, 2008; Stremersch & Telis, 2004), and also changed the measurement methods of organizational performance for this study (Aral & Weill, 2007; Steffens, et al., 2009).

Through earlier findings, and based on what the previous studies referred to, which addressed mostly measuring the impact of information technology on performance directly, overlooking that this technology doesn't work separately inside the organization, but there are other sources of strength that have to be consider, therefore problem of the study concentrate on measuring the impact of strategic orientations between information systems and organization in strengthening the financial performance.

#### 3- Questions of the Study:

Depending on the problem of the study, recommendations, and goals of some previous studies, this study tries to answer the following questions:

- 1. What is the level of implementing strategic orientations for organization used in Jordanian insurance companies, and what are the applied strategic orientations that companies adopt in this sector?
- 2. What is the level of implementing strategic orientations for information technology used in Jordanian insurance companies, and what are the strategic orientations for the applied information systems in this sector?
- 3. What is the impact of strategic orientations for organization on the financial performance of insurance companies?
- 4. What is the impact of strategic orientations for information systems on the financial performance of insurance companies?

# 4- Objectives of the study:

This study comes in response to requirements of the practical reality in the Jordanian insurance sector, in addition to the theoretical need that the previous studies confirmed; therefore the study objectives can be sum T marized in the following points:

- 1. Study the practical reality of strategic orientations for information systems and strategic orientations for organization in Jordanian insurance companies.
- 2. Study the impact of strategic orientations for information systems and for organization in strengthening the financial performance and the performance of information systems in Jordanian insurance companies.

# 5- Importance of the Study:

Study Importance comes in response to requirements of the practical reality; in addition to the theoretical need that derived from the reality of previous studies, therefore the study significance exist in:

- 1. he study tried to provide advices to adopt the best strategy for information systems to enhance the financial performance of insurance companies.
- 2. The study tried to provide advices to adopt the best strategy for the organization to enhance the financial performance of insurance companies.
- 3. The study comes in response to the previous studies, which recommended retesting some factors related to performance, and testing the direct relationship of these variables in improving the financial performance.
- 4. The study tries to retest this theory in a different environment, in response to the suggestions of some previous studies; therefore work has been done to implement this theory in Jordan as one of the developed countries.

# 6- Study variables:

The study addresses many concepts and variables that need to be define to facilitate the task of measuring them in the field study, they are as follows:

# **6:1 Strategic orientations for organization:** they are divided into three sub-variables:

- A. **Defenders strategy:** this strategy focuses on a narrow field in the market through control of a sub market, with relative stability, small market growth size, and focuses its attention on the efficiency in operations performance.
- B. **Prospector's strategy:** this strategy focuses on creating new market opportunities, always search for available opportunities, seek to invent creative products, and focus its attention on a variety of markets as a means of defense.
- C. Analyzers strategy: this strategy focuses on a narrow market which through it serve specific consumers, but it continuously search for new opportunities, aim to create innovative products, and



moves very quickly with the new developments in the industry, but rarely take risk in introducing a good or service in a new market. Strategic orientations classifications were adopted according to the researchers division (Miles & Snow), (Dong X., et al., 2008).

(Table 1) Indicators of measuring business strategy

Type of strategy	
Items of	Items for measurement
measurement	
Prospector	P1: Constantly seeking new opportunities related to the present operations
	P2: Seeking market share position at the expense of cash flow and profitability
	P3: Cutting prices to increase the market share
Defender	D1: Using cost control systems for monitoring performance
	D2: Using production management techniques
	D3: Emphasizing on product quality through the use of quality circles
Analyzer	A1: Information systems provide support for decision making.
	A2: When making a major decision, we usually try to develop thorough analysis.
	A3: Using planning techniques and using the outputs of management information and
	control systems

### **6:2 Strategic Orientations for Information Systems:**

Information systems strategies and strategic orientations of organization were measured in the same way, for the purpose of specifying the level of alignment between the two dimensions of strategies and to ensure the range of compatibility between them, therefore information systems strategies have been measured according to the researchers classification (Miles & Snow), which divided this variable into the defenders strategy, prospectors strategy, and analyzers strategy (Dong X., et al., 2008).

Table (2) Indicators of measuring IS strategy

Type of strategy	
items of	Items for measurement
measurement	
Prospector	IS_P1: Using competitive intelligence systems
	IS_P2: Using IS for product marketing and promotion
	IS_P3: Using IS for obtaining customer feedback and providing service
Defender	IS_D1: Using IS in business processes
	IS_D2: Using IS to support research and development
	IS_D3: Using IS to support manufacturing
Analyzer	IS_A1: Using IS to support strategic planning and decision-making
	IS_A2: Using IS in risk analysis of processes
	IS_A3: Using IS in human resource management (performance evaluation)

#### 6:3 performances:

Many researchers addressed this variable in different forms, depending on the nature of the population study, but the definition of (Bergeron) has been adopted in this study, who refers to the organizational performance as a base for strength and capability of organization strategy compare with competitors, and financial performance was measured through the profitability, which can be measured using some financial indicators, such as return on investment (ROI), return on sales(ROS), and profit share value, and this dimension pertain to measure the strength of the organization. These various indicators have been dealt with in comparison with competitors (Spencer, et al, 2009).

But in regard to the measurement of the information system performance, (Dong) scale was adopted to measure the satisfaction range achieve by computer systems to their users, and also measured the impact of these systems in support of the organizational duties at work, and they have been measured through some articles or questionnaire (Dong X., et al., 2008).

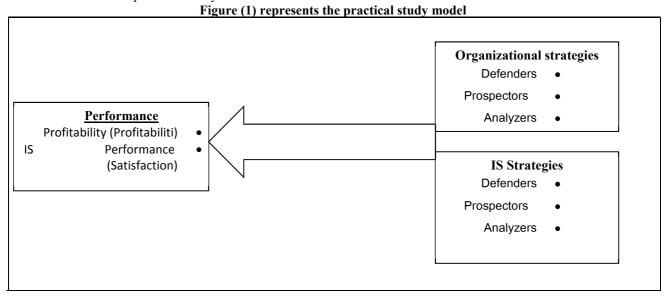


Table (3) Indicators of business performance and information system performance

Tuble (c) Indicators or bus	mess per for mance and information system per formance				
Type of performance Items for	Items for measurement				
measurement					
Business performance:	- Return on investment related to competition in the past 3 years				
Profitability (Spencer, et al, 2009)	- Sales revenue related to competition in the past 3 years				
	- Operating profit related to competition in the past 3 years				
System performance: Satisfaction	- Satisfaction with IS staff and services				
(Dong, et al, 2008)	- Satisfaction with the information product				
	- Satisfaction with users' participation in systems projects				

## 7- Practical study model:

The model of this study was developed from some of previous studies, also the variables measurement in this model were modified to fit with the practical reality in the Jordanian insurance sector.



# 8- Study Hypotheses:

In response to the previous studies' recommendations and the practical reality needs of the Jordanian insurance sector, the hypotheses that will be addressed in this study have been identified beginning with its problems and goals( objectives), which are based on four basic hypotheses:

**First Hypothesis:** there is a statistical significant impact of strategic orientations at the organization on the level of financial performance; three sub hypotheses were emerged from this basic hypotheses:

- 1. There is a statistical significant impact of defenders strategy used in organization on the financial performance.
- 2. There is a statistical significant impact of prospectors strategy used in organization on the financial performance.
- 3. There is a statistical significant impact of analyzers strategy used in organization on the financial performance.

**Second Hypothesis:** there is a statistical significant impact of strategic orientations at the organization on the level of information systems performance, three sub hypotheses were emerged from this basic hypothesis:

- 1. There is a statistical significant impact of defenders strategy used in organization on information systems performance.
- 2. There is a statistical significant impact of prospectors strategy used in organization on information systems performance.
- 3. There is a statistical significant impact of analyzers strategy used in organization on information systems performance.

**Third Hypothesis:** there is a statistical significant impact of strategic orientations of information systems on the level of financial performance, three sub hypotheses were emerged from this basic hypothesis the following:

- 1. There is a statistical significant impact of defenders strategy used in information systems on the financial performance.
- 2. There is a statistical significant impact of prospectors strategy used in information systems on the financial performance.



3. There is a statistical significant impact of analyzers strategy used in information systems on the financial performance.

**Fourth Hypothesis:** there is a statistical significant impact of strategic orientations of information technology on the level of information systems performance, three sub hypotheses were emerged from this basic hypothesis:

- 1. There is a statistical significant impact of defenders strategy used in information technology on information systems performance.
- 2. There is a statistical significant impact of prospectors strategy used in information technology on information systems performance.
- 3. There is a statistical significant impact of analyzers strategy used in information technology on information systems performance.

# 9- Population and Sample:

This study population consists of all workers in the Jordanian insurance companies register in Amman financial market, until 2015, which estimated at (28) companies, according to the publications issued by the board of financial securities, in the year of 2015. Four companies have been excluded because of their reluctance to take part in the research, therefore the study population will contain only (24) companies.

Analysis unit represents in executive managers in the Jordanian insurance companies, classified in their companies under the name executive managers. Questionnaire have been distributed on all companies according to the number of executives present in each company, a number of (227) questionnaires have been distributed, out of which (156) questionnaire were retrieved which is a percentage of (68.7%). Two of the questionnaires were excluded as they considered invalid, due to large deficiency in answering the articles in the questionnaires.

# 10- Test the Measurement Tools:

**Validity:** means that the primary questions contained in the study survey, work on measuring the variables suitably, and for this purpose the study survey presented on a group of special instructors, and modify some questions, according to their recommendations. Study survey was also presented on a group of managers in different departments to ensure the clarity of the questions.

**Reliability**: refers to the stability degree of the results obtained using the measurement tool for several times to measure the concept at the same time or in consecutive times. The statistical package for Social Sciences (SPSS) has been relied on to produce the Cronbach alpha coefficient for the different variables to ensure constancy of the measurement tool.

It shows that alpha value for the first variable, which is strategic orientations of organization amount to (73.6), with (9) questions, the alpha value for the second variable, which is strategic orientations of information systems amount to (75.3), with (9) questions, and the alpha value for the third variable, which is financial performance amount to (62.3), with also (9) questions. It noticed that all the values greater than (60%), and this represent a good level for the internal constancy (Cronbach alpha coefficient), which is an acceptable percentage for the purpose of completing the statistical analysis (Sekaran, 2016).

# 11- Data Analysis and Hypothesis Test:

The study aimed to test the impact of strategic orientations for organization on the financial performance in the Jordanian insurance companies registered at Amman stock exchange. Below is a review of the results of the analysis for the hypotheses:

**First Major Hypothesis:** there is statistically significant impact of strategic orientations for organization on the financial performance (profitability) in the Jordanian insurance companies. For the purpose of arriving to a comprehensive test for this main hypothesis, it was divided into three sub hypotheses which represent the general orientations in strategies:

**First Secondary Hypothesis:** "there is a statistical significant impact of defenders strategy used in organization on the financial performance". Through table (4), it showed the existence of a weak positive correlation amount to (0.42) between the defenders strategy and the financial performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

**Second Secondary Hypothesis:** "there is a statistical significant impact of prospectors strategy used in organization on the financial performance". Through table (4), it showed the existence of a weak positive correlation amount to (0.37) between the prospectors strategy and the financial performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

Third Secondary Hypothesis: "there is a statistical significant impact of analyzers strategy used in organization on the financial performance". Through table (4), it showed the existence of a weak positive correlation amount to (0.48) between the analyzers strategy and the financial performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.



Table (4) shows the correlation coefficient for the strategic orientations variable

Number	Secondary variables	Beta	Sig.	R	F	Sig.
1	Defenders strategy	0.42	Significant			
2	Prospectors strategy	0.37	Significant	0.38	4.23	Significant
3	Analyzers strategy	0.48	Significant			

Through table (4), it showed the existence of a weak positive correlation amount to (0.38) between the strategic orientations and the financial performance, where the F-value amount to (4.23). The hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis. This confirms the findings of some previous studies (Cao & Schniederjans, 2004; Sabherwal & Chan, 2001; Floyd & Wooldridge, 1990), which opposed the findings of some other researchers (Dong X., et al., 2008).

<u>Second Major Hypothesis</u>: there is statistically significant impact of strategic orientations for organization on information systems performance in the Jordanian insurance companies. For the purpose of arriving to a comprehensive test for this main hypothesis, it was divided into three sub hypotheses which represent the general orientations in strategies:

First Secondary Hypothesis: "there is a statistical significant impact of defenders strategy used in organization on information systems performance". Through table (5), it showed the existence of a weak positive correlation amount to (0.12) between the defenders strategy and the information systems performance, the hypothesis found non-statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the rejection of the hypothesis.

**Second Secondary Hypothesis:** "there is a statistical significant impact of prospectors strategy used in organization on information systems performance". Through table (5), it showed the existence of a weak positive correlation amount to (0.17) between the prospectors strategy and the information systems performance, the hypothesis found non-statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the rejection of the hypothesis.

Third Secondary Hypothesis: "there is a statistical significant impact of analyzers strategy used in organization on information systems performance". Through table (5), the hypothesis showed the existence of a weak negative correlation amount to (-0.22) between the analyzers strategy and the information systems performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

Table (5) shows the correlation coefficient for the strategic orientations variable

Number	Secondary variables	Beta	Beta Sig.		F	Sig.
1	Defenders strategy	0.12	Non-Significant			
2	Prospectors strategy	0.17	Non-Significant	0.15	2.23	Non-Significant
3	Analyzers strategy	-0.22	Significant			

Through table (5), it showed the existence of a weak positive correlation amount to (0.15) between the strategic orientations and the information systems performance, where the F-value amount to (2.23). The hypothesis found non-statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the rejection of the hypothesis. This confirms the findings of some previous studies (Dong, et al., 2008; Yardley & Powell, 1996). This refers to the existence of an intermediate factor between the two variables, which is confirmed in some studies (Dong X., et al., 2008).

<u>Third Major Hypothesis</u>: there is statistically significant impact of strategic orientations for information technology on the financial performance in the Jordanian insurance companies. For the purpose of arriving to a comprehensive test for this main hypothesis, it was divided into three sub hypotheses which represent the general orientations in strategies:

First Secondary Hypothesis: "there is a statistical significant impact of defenders strategy used in information technology on the financial performance". Through table (6), it showed the existence of a weak correlation amount to (0.29) between the defenders strategy and the financial performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

**Second Secondary Hypothesis:** "there is a statistical significant impact of prospectors strategy used in information technology on the financial performance". Through table (6), it showed the existence of a weak positive correlation amount to (0.12) between the prospectors strategy and the financial performance, but the hypothesis found non-statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the rejection of the hypothesis.

Third Secondary Hypothesis: "there is a statistical significant impact of analyzers strategy used in information technology on the financial performance". Through table (6), it showed the existence of a weak negative correlation amount to (0.45) between the analyzers strategy and the financial performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.



Table (6) shows the correlation coefficient for the strategic orientations variable for information technology

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Number	Secondary variables	Beta	T	Sig.	R	F	Sig.
1	Defenders strategy	0.29	2.75	Significant			
2	Prospectors strategy	0.12	0.59	Non-Significant	0.37	4.53	Significant
3	Analyzers strategy	0.45	0.18	Significant			

Through table (6), the hypothesis showed the existence of a weak positive correlation amount to (0.37) between the strategic orientations and the financial performance, where the F-value amount to (4.53). The hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis. These findings were confirmed in some of the previous studies (Cao & Schniederjans, 2004). But this result disagree with what some other researchers arrived to (Dong X., et al, 2008).

<u>Fourth Major Hypothesis</u>: there is statistically significant impact of strategic orientations for information technology on information systems performance in the Jordanian insurance companies. For the purpose of arriving to a comprehensive test for this main hypothesis, it was divided into three sub hypotheses which represent the general orientations in strategies:

First Secondary Hypothesis: "there is a statistical significant impact of defenders strategy used in information technology on information systems performance". Through table (7), it showed the existence of a weak positive correlation amount to (0.25) between the defenders strategy and the information systems performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

**Second Secondary Hypothesis:** "there is a statistical significant impact of prospectors strategy used in information technology on information systems performance". Through table (7), it showed the existence of a weak positive correlation amount to (0.11) between the prospectors strategy and the information systems performance, but the hypothesis found non-statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the rejection of the hypothesis.

Third Secondary Hypothesis: "there is a statistical significant impact of analyzers strategy used in information technology on information systems performance". Through table (7), it showed the existence of a weak positive correlation amount to (0.45) between the analyzers strategy and the information systems performance, the hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis.

Table (7) shows the correlation coefficient for the strategic orientations variable for information technology

Number	Secondary variables	Beta	T	Sig.	R	F	Sig.
1	Defenders strategy	0.25	3.35	Significant			
2	Prospectors strategy	0.11	0.59	Non-Significant	0.43	5.37	Significant
3	Analyzers strategy	0.45	0.18	Significant			

Through table (7), the hypothesis showed the existence of a weak positive correlation amount to (0.43) between the strategic orientations and the information systems' performance, where the F-value amount to (5.37). The hypothesis found a statistical significant at level of ( $\alpha \le 0.05$ ), which indicates the acceptance of the hypothesis. These findings were confirmed in some of the previous studies (Dong X., et al., 2008; Cao & Schniederjans, 2004).

# 12- Important Results:

- 1. It shows through analyzing the data that defenders strategy used in organization to have an impact on financial performance (profitability), but didn't have an impact on the performance of information systems (satisfaction). The focuses primarily was on the lookout for new opportunities related to current operations, then reduce prices to boost market share, but instead cared about the cash flows and profitability more than market share.
- 2. It shows that prospector's strategy used in organization to have an impact on financial performance (profitability), but didn't have an impact on the performance of information systems (satisfaction). Insurance companies found to use cost control systems (CCS) at a large scale, they also gives attention, at second degree to the concept of production management techniques (PMTs), and in the third place they uses quality departments to put emphasis on the product quality.
- 3. Analyzers strategy found having an impact on financial performance (profitability), and also on the performance of information systems (satisfaction). It shows that using each of the planning techniques (PTs) and the output of systems and the control systems come in first place in strengthening the financial performance of the organization and improving the performance of computer information systems. Activate the utilization of analysis mechanisms to improve the quality of the decision that has been taken, came second, and utilization of information systems to support the primary decision making came last, at third place.



- 4. The results indicated an impact of the defenders strategy used in information systems on the financial performance (profitability) and on the performance of information systems (satisfaction). It turns out that the use of support systems for marketing and promotion, took the companies greater interest. They also have concerns about the supported information systems to the services after sales, but in the opposite there was weakness in the use of competitive intelligence systems (CIS).
- 5. The results shows that prospector's strategy used in information systems didn't have an impact on the financial performance (profitability) and on the performance of information systems (satisfaction). It shows that companies didn't have the desire to use information systems either to support the working methods, or to support the research and development processes, and neither to strengthen the manufacturing process of the new services.
- 6. In regard to the impact of analyzers strategy used in information systems, it shows to have an impact on the financial performance (profitability) and also on the performance of the information systems (satisfaction). It shows that companies use information systems largely in human resources management, they use them in a good way to support the strategic planning process and decision making, and they also use them partly in the risk analysis.

# 13- Recommendations:

After reviewing the literature, and implementing the results of the analyzed variables and hypotheses of the study, the study introduces the following recommendations:

**First:** Strengthen the use of appropriate and supported information systems for used strategies in the organization, it found a big gap between the type of information systems and nature of used strategies in the organization, because the use of prospectors strategy requires the use of special information systems, such as competitive intelligence systems (CIS).

**Second:** Create some kind of synergy or alignment between the strategy used in the organization and the strategy used in information systems, which in turn reflect on improving the financial performance of insurance companies.

**Third:** Restudying the various organizational divisions in enhancing performance through the use of different variables measurements for the purpose of enriching the research work in this field and stressing on the importance of studying over the search model and sample from other perspectives to emphasize the results of this study.

**Fourth:** Implementing the practical study sample and model on the different economic sectors and on all of the organizational levels, and must also perform comparative studies between the different economic sectors in Jordan.

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