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Research Article

Investigating The Mediating Role of The Strategic Alignment of IT On the Relationship Between Strategic Maturity and Strategic Coordination

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Abstract

This paper aims to interpret the relationships between the strategic maturity variable, the strategic alignment variable for information technology (IT) and their reflection on the strategic coordination variable. A set of inquiries was shaped to express the relationships based on theoretical and practical frameworks at the level of the application. A questionnaire was developed as a basic tool for data collection. The respondents of the questionnaire were (64) senior managers and executive managers who affiliated to the State Company for Drug Industry and Medical Appliances (SDI) located in Samarra/Iraq. Thereafter, the study data was analyzed using some appropriate statistical tools through several ready-made statistical programs (SPSS24, Excel 2013, and Amos 24). This paper concluded that the strategic alignment of IT has a mediating role between the strategic maturity and strategic coordination. This process has been carried out depending on the depth and breadth of the participation, the strategic planning process, and the method of implementing plans and objectives based on the dimensions of strategic maturity.

Keywords

Strategic Alignment, information technology, Relationship, Strategic Maturity, Strategic Coordination

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Statement of the Problem

Currently, business environment is characterized as a dynamic and unstable environment, as this is reflected in the ability of organizations in general or in particular to face these challenges of continuous and rapid changes. Therefore, traditional administrations, with their means and processes, have become relatively constrained in enabling the organization to face challenges. This entitles that these organizations have to follow the proposed administrative practices and methods, including strategic maturity, strategic alignment of information technology, and strategic coordination of the process so that the organization can advance its work at the level of environmental developments and within its reality. Moreover, SDI has experienced Corona pandemic; it has become imperative for the company to establish a strategic coordination of its operations in order to respond to urgent environmental requirements through integrating its strategic operations and its strategic information system. To interpret the expected relationships between the study variables, the question was formed in a way that would express those relationships in their practical framework based on the following: Does strategic maturity interpret a certain level of variance in the strategic alignment of IT, and then the variance in the level of strategic coordination of operations in it? In other words, does the integration of strategic maturity affect the different strategic alignment of IT for the company, and then the strategic coordination of the process?

Study Objectives

1. Investigating the integration mechanisms between strategic maturity and strategic alignment of IT based on the study sample SDI Thereafter, this study investigates the impact of the integration mechanisms on the strategic coordination of the process.
2. Interpreting the relationship between the strategic maturity and the strategic coordination with clarifying the strength and the direction of the relationship between them.

Main Hypotheses

1. Strategic maturity with its dimensions: (strategy development and planning, the depth and breadth of the participation in the strategic planning process, method of implementing plans and objectives, method of communicating results across the organization) has a significant and statistical impact on the strategic coordination variable.
2. Strategic maturity with its dimensions: (strategy development and planning, the depth and breadth of the participation in the strategic planning process, method of implementing plans and objectives, method of communicating results across the organization) has a significant statistical impact on the strategic alignment variable of IT.
3. Strategic maturity with its dimensions: (strategy development and planning, the depth and breadth of the participation in the strategic planning process, method of implementing plans and objectives, method of communicating results across the organization) has a statistically significant effect on the strategic coordination variable with the presence of the strategic alignment variable of IT as a control variable.
4. The strategic alignment as a variable of IT mediates the relationship between the strategic maturity dimensions and the strategic coordination variable, with a statistically significant effect.

Study Background

According to Alshamaa (2007, p: 221) the strategic maturity can be defined as a concept depends on the degree of maturity in employing the available resources. Moreover, the strategic maturity, in addition, depends on achieving higher revenues, satisfying the needs, desires of the individuals, raising their morale, intensive participation in developing appropriate strategies for the organization to ensure the achievement of the goals and objectives of the organization. Strategic maturity can be further defined as knowledge that involves competitive advantage in markets. In other words, when the organization reaches its strategic maturity, it will enhance the competitive position of the organization, and therefore the organization could achieve the strategic maturity, in which it has a competitive advantage that represents one of its strengths.

Types of strategic maturity

The strategic maturity is classified into three levels:

Individual Maturity

It is a set of performance dimensions that have been observed. These dimensions are: individual knowledge, skills, behaviors and organizational abilities linked to each other in order to obtain high performance and provide the company with a supportive competitive advantage.

Collective maturity

The work team represents (an interest, a unit, a network, a project...etc.) that is capable of managing its tasks efficiently to reach its goals and results. It is not a sum of individual maturity, however; the result of the cooperation and synergy that exists between individual maturity and the organization of work teams allows or facilitates the achievement of the intended results.

Strategic organizational maturity

The concept of strategic organizational maturity is one of the problems related to the management of human resources. This concept is not related to human resources only, as the maturity of the individual consists of the sum of individual qualities (knowledge, skill, behavior) which are linked to a set of special activities. Successful work within the organization is based on the cooperation mechanisms that ensure the establishment of the reliability (relationships of mutual influence) between the integrated maturity and leads to the creation of cooperation factors that gives a result more than the one achieved if the individual works alone.

Dimensions of Strategic Maturity

1. Strategic planning and development: It is the process of introducing the organization's strategy or direction, and making decisions for defining its resources to follow up on this strategy and work to develop it whenever new influential variables might appear. The concept can also expand to control mechanisms to guide the implementation of the intended strategy. Strategic planning has become prominent in companies during the 1960s. Moreover, it is still an important aspect of strategic management. Strategic planning is carried out by strategic planners or specialists, who include many parties and research sources in their analysis of the organization and its relationship with the business environment in which it is competing. Effective strategic planning can improve performance by better aligning external operational outlets with operational capabilities (Divesh, 2019:23).
2. Depth and breadth of participation in the strategic planning process: the best way to make a qualitative leap is the use of the strategic planning process in the overall performance of the institution and requires the participation of the actual decision makers in the institution and all the main parties affecting the development of the performance. It is necessary to combine efforts and the participation of all parties in the planning process, with the need to pay attention to the need to focus on the overall dimensions of the institution. In addition to not being affected by problems and sub-works that may distort the overall view of upgrading the site and the future strategic role of institutional work.
3. The way of executing plans and goals: Strategic plans and objectives are implemented by translating them into plans, programs and budgets, each of which expresses the activities that should be implemented. Furthermore, the resources allocated to each of them, the specific timing of performance and acceptable performance standards. In addition, the proper implementation of the strategies depends on the soundness and efficiency of the organization entrusted with it. It also needs to be reviewed and reorganized to ensure the efficiency and ease of flow of activities and operations in order to achieve the strategy (Al-Salami, 2010: 87). Implementation must be done step-by-step so that the organizations are not overwhelmed by trying to implement many simultaneous changes may not allow the radical pace of implementation in which significant changes are made quickly for the organizations. Time must be considered to carefully plan and

implement successful reorganizations or to engage and commit members of the organization. Moreover, operations can be significantly disrupted and many consequences might blow up.

4. Communicating of the results: the results are communicated to the analysts through feedback and defined as information about the actual performance or actions of the organization that is used to control its future performance. The organization's performance is a system that has inputs, processes, and outputs. The feedback is a channel for output standardization information and is translated into signals through which the input and the operating process can be controlled (Taylor, 2015, 87).

Strategic Alignment

it was introduced by (Henderson and Venkatraman ,1999): it is a strategy that considers the internal and external environment of the organization, and strategic choices must be made to deal with environmental changes. So that all fields, whether internal or external, must be in harmony with each other, as the model comprises the business field and the field of IT, and this model is considered complex that it has many relationships. (Luftman) 2015 defines a good alignment as the application of appropriate IT at the right time and place in consideration to help organizations achieving their goals and objectives.

Strategic Alignment (External Dimension - Competitive Environment)

The effectiveness of the company in facing the demands of its environment depends on the elements of the various sub-systems that make up the company, and which are designed under the demands of the environment with which it interacts. This means that the various elements of the sub-systems must be identical in terms of properties along each of the basic dimensions through which they are defined (Mello, 2013. p. 62). This can be called the Congruency Hypothesis, which states that the necessary condition for the effectiveness of the company in meeting the requirements of its environment is the necessity that the relationships between the properties of the sub-systems are identical. It is assumed that the company will be less effective in addressing the demands of its environment when such relationships are not identical. The adaptation of subsystem elements to environmental demands leads to excellence within the company that calls for managing appropriate environmental limits to achieve a state of integration for the company as a whole. Thus, the harmony of the elements of the company's subsystems is a necessary condition for success. But it is not enough, as it must be completed with what can be called the integration hypothesis, which states that the company, if it is distinguished, must achieve an appropriate state of reintegration if it were to be effective (Daft, 2001, p 168-172). Accordingly, when the two hypotheses of congruence and integration are united, the success of the company in addressing the demands imposed on it from its environment depends on the appropriate distinction that is characterized by congruence between the elements of the sub-systems and achieving an appropriate state of integration.

Strategic Alignment (Internal Dimension – Internal Environment)

Depending on the changing environment, the reconciliation between the company's strategic objective and strategic activities is not continuous or permanent. It is possible that the strategic actions and activities initiated by directing or obstructing the strategic objective. Such inconsistency between the strategic goal and the actual activity causes inconsistency or strategic disharmony in the company. However, the new strategic objective is necessary to lead the company away from the strategic inconsistency. Moreover, the main proposal is to be placed based on benefiting from the conflicting information generated by the situation of strategic inconsistency (Burgelman & Grovel, 1996, p. 8-9).

The following points are the consequences of the above argument

a. Strategic inconsistency appears as a strategic weakness.
b. The managing of the strategic mismatch requires strategic awareness.

Moreover, the strategic mismatch, the strategic point of contention, and the strategic realization, are interchangeable concepts. Accordingly, Burgelman, (1994, p. 3) proposes a framework for

analyzing the strategic alignment that matches (the company's competitiveness with the foundations of competition) in its industry sector and responds to (its strategy, its strategic activity). However, in case of the absence of any indication to the strategic mismatching, the institution firmly resorts to establish an option that is suitable to its internal environment.

Strategic alignment between IT and business perspective

Two perspectives of strategic alignment between IT and business have been studied for more than two decades and investigated from two different perspectives: an end-state perspective and a process perspective.

a. An end-state perspective in strategic alignment: this perspective has been adopted by some researchers to examine strategic alignment as an end-state. Through this perspective, variance or factor models have been developed to explain how alignment is implemented by addressing many of its predecessors. Moreover, there is a possibility of observing and quantifying the results (Raymond, 2009, p: 108). In general, this study adopts the perspective of contingency theory, which shows the degree of alignment as dependent on the specific factors. In addition, some studies that adopt this perspective allow researchers to measure the degree of compatibility between the company's business strategy and the IT strategy.
b. Process perspective on strategic alignment: the second perspective is the process perspective employed by some researchers to explain strategic alignment as a process rather than an end state (Sproule, 2018, p; 55). The truth behind this perspective is that strategic alignment cannot be achieved definitively when the business environment is constantly changing. This leads to the emergence of new information needs within the company and necessitates changes in organizational strategy (Gavrea, 2011, p: 85). Rather than assessing the degree of alignment, the process perspective encourages researchers and practitioners to evaluate the interactions of the IT department with the business as a whole to see how the interactions and links between the two facilitate the joint development of IT and business strategy (Al-Adwan, 2014, p: 161). The maturity Assessment Criteria of the strategic alignment: the following criteria are the assessment of the strategic maturity stated by (Zhen, 2019, p: 4).

1. Communication: this criterion deals with the effectiveness of communicating ideas and knowledge between managers of business units and managers of IT to enable them understanding the strategy of the organization they affiliated to.
2. Competence: The extent to which the value of IT is demonstrated in terms of contributing to the efficiency and effectiveness of business within the same organization.
3. Governance: This criterion ensures that the right people in business and IT discuss and formally review priorities and allocate IT resources within the organization.
4. Partnership: This criterion includes the relationship between business managers and IT managers and the extent of their collective participation in defining the strategies.

The strategic coordination of the operation

(Leong & Stonebraker) highlights that the coordination strategy for operations as dynamic activities directed towards the competency of distinctive operations. Through which it is possible to evaluate the effects of alternatives and situations in structured periods and towards the integration of the decision model to balance the available resources, output requirements, and expected risks. As for (Leong & Stonebraker, 1994:65), (Krajewski & et al.) indicated that the operations coordination strategy seeks to develop a long-term plan, to determine how the organization's main resources achieve the best benefit and how to raise the degree of compatibility between those resources and the organization's long-term strategy. (Krajewski, 2012: 30).

Merriam-Webster Dictionary defines coordination as

1. The process of organizing people or group of people that they can work together in a proper way.
2. Coordinating performance of parts to achieve effective results requires excellent hand-eye coordination.

Contextual examples are listed below

- The new agency oversees the coordination between the various departments.
- The manager is responsible for project coordination.
- Better coordination among departments is vital
- Exercising improves strength and coordination.
- Sickness might cause lack of coordination.

The importance of coordinating process strategy

(Thompson, 2005) stresses that the importance of the operations coordination strategy appears through its ability to create many opportunities. These opportunities are set to develop competitive priorities, which are shorter preparatory time for delivery, improving product quality and ability that gives the organization strength over its competitors and market share. In addition to the advantages that the organization achieves through managing and coordinating Operations and these advantages are: (Thompson, 2005: 31)…

1. Interrelationship between operational, financial, and marketing plans and information systems,
2. Achieving flexibility in operations: this leads to rapid response to changes in customer requests,
3. Increased productivity and improved competition in global markets.
4. High level of quality supports organizations to remain able to compete in global markets,
5. Examine the limitations that economic and technological considerations place on operations.

Improving the strategy of the process coordination

One of the most important responsibilities of the operation manager in various business organizations is the preparation of accurate scientific stages to develop the strategy of coordinating operations. In order to achieve continuous support for the business strategy, (Evans) identified these stages as follows: (Evans, 2010; 137-138)

1. Acknowledging the business objectives in the fields: market growth, product strategy, and the competitive environment,
2. The defining of the strategic operations that are divided into similar groups of products during the product and market analysis processes, as well as identification of operation characteristics,
3. Defining the operation mission based on the factors of the critical market success,
4. Allocating direct goals for technology, vertical integration, organization focus, and monitoring the operational policy to support strategic operations divisions,
5. Defining the ongoing operations, available resources, existing technology, and the management philosophy of the organization.

The Practical Side

Construct Validity of confirmatory factor analysis (CFA)

CFA test is used to match the dimensions or variables and their items with their theoretical structure. This type of analysis embodies one of the structural equation models implemented in the statistical program (AMOS, 24). The validity of the confirmatory construction can be verified through the quality indicators of conformity, which were represented by the (Chi-Square) ratio divided by degree of freedom (df), which should not exceed (5). The results proved at the level of the three dimensions and variables of the research, the details of which are shown in the figures (), () and (), as well as the saturation coefficients for the paragraphs of the scale, which must be equal to or exceed 40% as another indicator of conformity.

Fig. (1) CFA: Strategic Maturity Scale

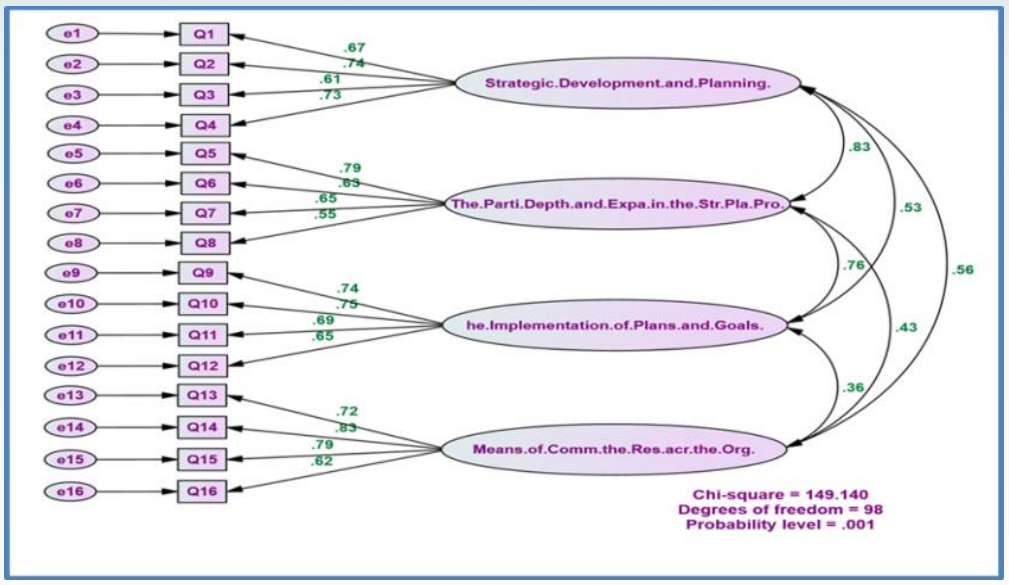


Fig. (2) CFA: Strategic Coordination of IT

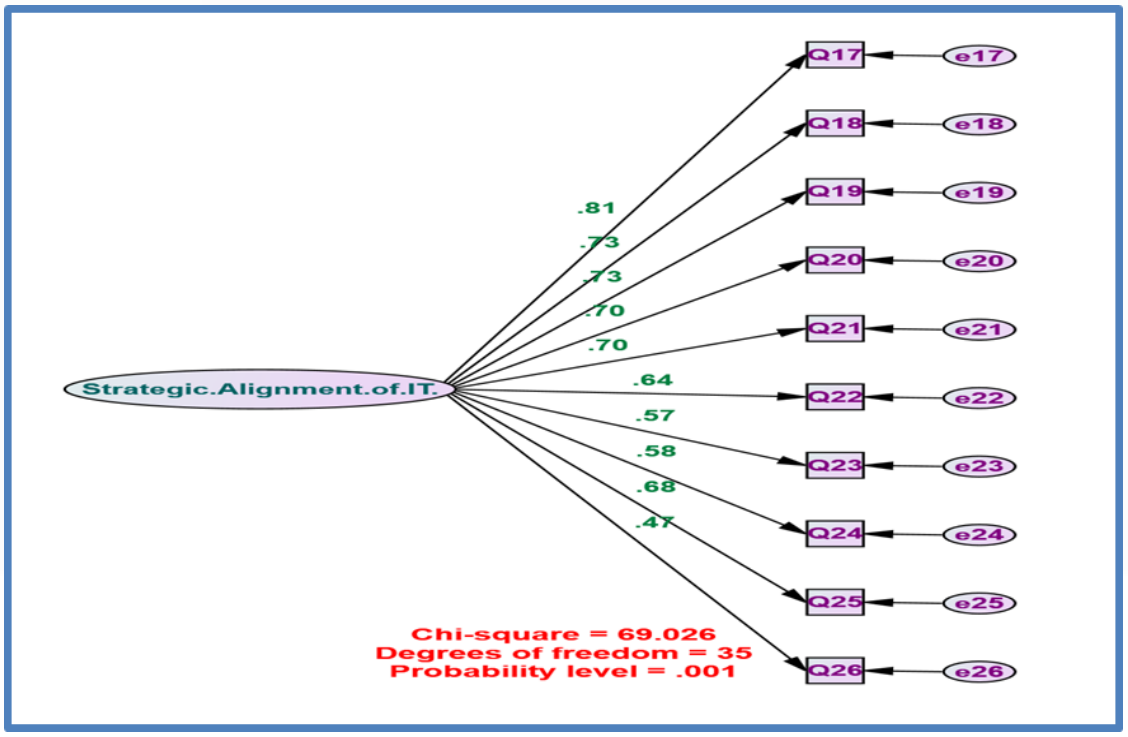
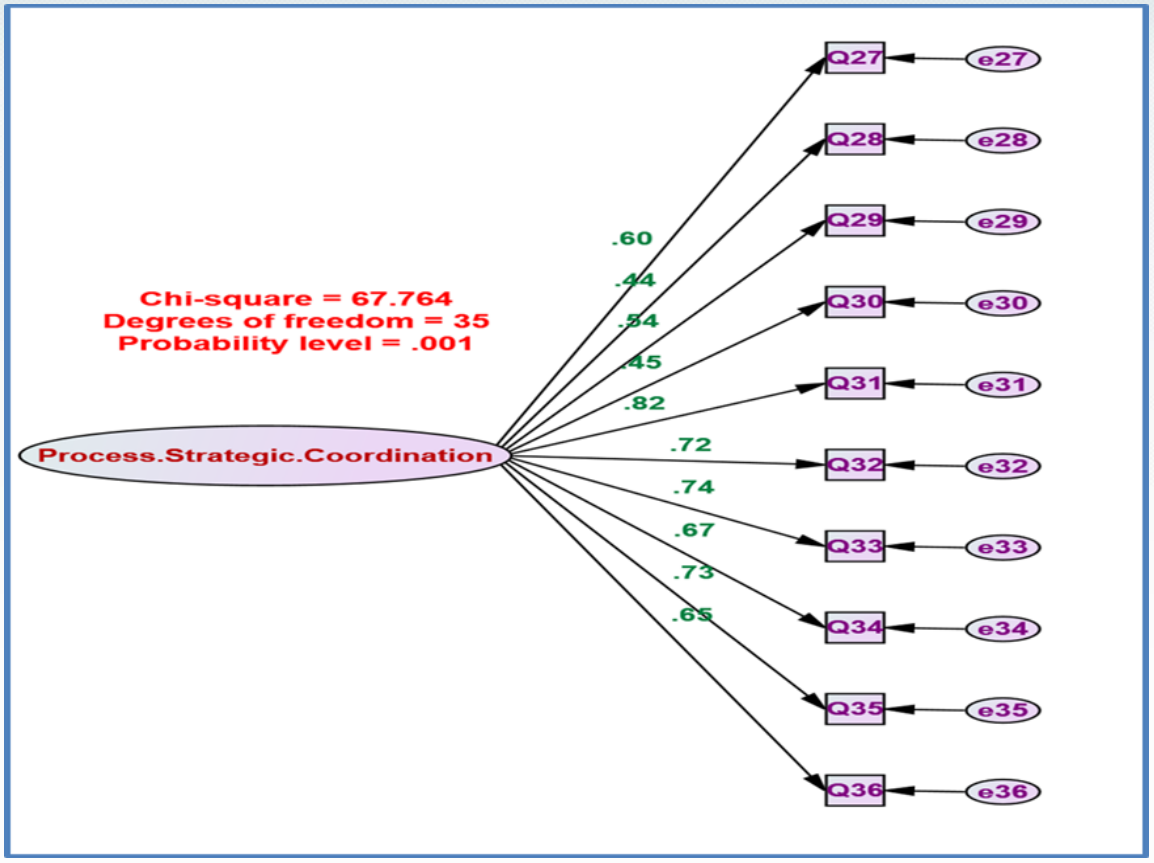


Fig. (3) CFA: Strategic Coordination of the process



Descriptive statistics analysis of the study variables:

This section involves a detailed presentation of the descriptive statistics results for the research variables and their dimensions that express their contents using several statistical description tools represented by: (mean, standard deviation (SD), coefficient of variation (CV), relative importance calculated through the CV, and the level of the answer). It was estimated by dividing it into five levels by calculating the difference between the limits of the upper and lower scale (5-1 = 4) and dividing it by the upper limit (5) of the scale, then adding the result (0.80) the division to the lower limit of the scale and consequently to produce the following scale:

(1.80-1)	Very Low
(2.6 -1.81)	Low
(3.40 -2.61)	Moderate
(4.20-3.41)	High
(5-4.21)	Very High

Moreover, it is very important to test the research hypotheses using multiple linear regression models to form a matrix that shows the correlation coefficients between the research variables and their dimensions to identify the correlation values exceeding (.70). This may trigger the existence of the problem of linear multiplicity or may not between the dimensions of the independent variable and the mediating variable. In addition, it is vital to find out the normal distribution of the data of dimensions and variables, and to find out their parameters that assume the condition of their normal distribution.

The results of descriptive statistics for the study variables are shown below:

1. Strategic Maturity: four dimensions are listed in this variable, the results of which will be presented and discussed, respectively.

a- Strategy development and planning: the results of the analysis related to this dimension as shown in table ( ) have revealed that the item 4 (plans are developed and reviewed throughout

the year as needed, at least every three months), which achieved the highest mean (3.6875) with SD of (1.02159) and a CV of (0.277). A high response level, reflects the high agreement of the sample members related to the content of this item. This indicates less difference in the answers of the sample with a first RI according to the value of the least difference coefficient compared to the rest of the scale items. On the other hand, the lowest mean was (3.4375) in the item 2 (there is a formal process applied to develop plans, using tools such as: environmental survey, market analysis, competitive analysis, customer analysis, and SWOT). With the SD (1.08196), CV (0.314), a high response level also and with a fourth RI in terms of the sequence according to the value of the CV for the item as compared to the rest of the other items, whose statistical description results ranged as shown in the table (1). This shows that all the items of this dimension have high response levels. This result shows the clear harmony among the sample members about the content of these items.

Table (1)
exhibits the results of S. Descriptive of the dimension of Strategy development and planning

No.	S. Descriptive Items	Mean	SD	CV	Response level	RI
1	Developing Annual plans in the organization and selected departments using simple data	3.5938	1.04985	0.292	High	3
2	Formal process for planning, using tools such as: environmental scanning, market analysis, competitive analysis, customer analysis, SWOT	3.4375	1.08196	0.314	High	4
3	Developing plans to execute strategies using a formal process of strategic planning tools	3.5000	1.00791	0.287	High	2
4	Developing and revising plans throughout the year as needed, at least every three months	3.6875	1.02159	0.277	High	1
	Mean dimension	3.5547	0.81097	0.228	High	

b- Depth and breadth of participation in the strategic planning process: The results of the statistical descriptive analysis of this dimension shown in Table (2) revealed that the item 1 (Plans are developed by some experts). Accordingly, this item achieved a relatively high mean: (3.6094), with SD that was the lowest: (0.96965), CV: (0.268), and a high response level. This indicates a high agreement among the respondents about the content of this item first RI. As for the lowest rate of RI, it was achieved in item 3 (Departments include main stakeholders inside/outside the organization including crossing department lines to provide input and integrate it into plans and updates) with mean: (3.2656), SD: (1.07263) and CV :(0.328) and a moderate response level. A final RI in its sequence compared to the rest of the other items in this dimension, for which the results of the statistical description were fluctuated.

Table (2)
Results of descriptive statistics related to the depth and breadth of the participation in the strategic planning process

No.	S. Descriptive Items	Mean	SD	CV	Response level	RI
1	Plans are developed by some experts	3.6094	0.96965	0.268	High	1
2	All managements have a unified and multidisciplinary strategy for development and planning	3.1094	0.99391	0.319	Moderate	3
3	Departments include main stakeholders inside/outside the organization including crossing department lines to provide input and integrate it into plans and updates	3.2656	1.07263	0.328	Moderate	4
4	All levels in management jointly develop plans. The goals and projects link these levels	3.6406	0.98185	0.269	High	2
	Mean of the dimension	3.4063	0.71339	0.209	Moderate	

c. The execution of plans and goals: the results of descriptive statistics that belongs to this dimension of the independent variable are presented in table (3). It is clear that item 4 (The selected departments work to link the goals of the organization with the activities and work to monitor the progress made as well as the regression every three months) recorded mean: (3.6406) with a lowest SD: (0.86129), CV: (0.236) and with high answer level. These results indicate an agreement among the respondents on the content of this item and RI come at the first. As for the lowest mean: (3.2656) in the item 1 (The operations, projects, and activities of the department are in touch with the objectives of the management plan and are managed and tracked accordingly. variations are reported to top management) with highest SD: (1.11615), CV: (0.341) and moderate level. The fourth and final RI in its sequence according to the value of CV that belongs to this item as compared to the rest of the other items related to this dimension, whose results fluctuated between these two limits.

Table (3)
Descriptive statistics of executing plans and objectives

No.	S. Descriptive Items	Mean	SD	CV	Response level	RI
1	The operations, projects, and activities of the department are in touch with the objectives of the management plan and are managed and tracked accordingly. variations are reported to top management	3.2656	1.11615	0.341	Moderate	4
2	On a regular basis, objectives, procedures, organizational metrics, and cross-sections are managed and all departmental	3.5938	0.90359	0.251	High	3

	variations discuss and refine planning, projects, and activities					
3	Tracking down all the operations, projects and activities of the department based on the objectives of the company, the department, and the objectives of other departments	3.8281	0.91815	0.239	High	2
4	The selected departments work to link the goals of the organization with the activities and work to monitor the progress made as well as the regression every three months	3.6406	0.86129	0.236	High	1
	Mean Dimension	3.5820	0.75337	0.210	High	

d. Communicating of the results across the organization: the analysis of descriptive statistics of this dimension shown in table (4) revealed that the item 4 (In the organization, all departments identify key strategic activities, project achievements, and performance measures, based on that the differences for these key measures are reported) achieved the highest mean: (3.4375) with lowest SD: (0.87060). These results were reflected in the decrease of the value of CV: (0.253) and at a high response level. This means that there is a high agreement among the sample of the study regarding the content of this item. On the other hand, the lowest mean: (3.0938) was in the item 3 (Company objectives, different departments, project delivery, and metrics are regularly managed with all variances leading to planning, discussion, and modification of activity). Whereas the SD: (1.07966), CV: (0.348) is a moderate answer level and RI: 4, that is the fourth and last in its sequence in relation to the rest of the items of this dimension, whose results were fluctuating between these two limits.

Table (4):
Statistical results of the dimension (Communicating of the results across the organization)

No.	**S. Descriptive Items**	**Mean**	**SD**	**CV**	**Response level**	**RI**
1	Reports, activities/projects or strategic measures submitted by the departments that are closely related to the objectives of the organization	3.2344	1.05020	0.324	Moderate	3
2	Monthly and quarterly reports focus on financial performance and benchmarking	3.4219	1.05115	0.307	High	2
3	Company objectives, different departments, project delivery and metrics are regularly managed with all variances leading to planning, discussion and modification of activity	3.0938	1.07966	0.348	Moderate	4
4	In the organization, all departments identify key strategic activities, project achievements, and performance measures, based on that the differences for these key measures are reported	3.4375	0.87060	0.253	High	1
	Mean Dimension	3.2969	0.82481	0.250	Moderate	

2. IT strategic alignment: the strategic alignment of IT embodies an mediating variable, which is a one-dimensional one that is expected to transfer the relationship between the strategic maturity variable as an independent variable and the strategic coordination variable as a responsive variable. This item was selected to display the results of this variable according to the details shown in the table (5) from which the achievement of the item 3: (Business staff appreciates the contribution IT in the business based on the increasing productivity) which has a mean: (3.7031) and a lowest SD: (0.88515) and with a CV: (0.239), with RI that is the first in its rank and the level of response was high. It shows the agreement between the opinions of the sample regarding the content of this item and confirms the harmony in the views of the respondents. As for the lowest value of mean, it was recorded in the item 8 (IT sector reacts quickly to the changing of business needs in the organization), which amounted to (3.2188), with a SD: (1.04606), and CV: (0.324), with a tenth and last RI in its rank. The level of the answer was moderate compared to the rest of the other items of this dimension, which were the results of their statistical description as shown in table (5).

Table (5)
descriptive statistics of the strategic alignment variable for IT

No.	S. Descriptive Items	Mean	SD	CV	Response level	RI
1	Business managers understand the work environment of IT	3.7813	1.09063	0.288	High	5
2	Managers appreciate the achievements of the work	3.6094	1.12147	0.310	High	8
3	Business staff appreciates the contribution IT in the business based on the increasing productivity	3.7031	0.88515	0.239	High	1
4	Respond to changes in the business	3.5469	0.97476	0.274	High	4
5	Provide new applications in response to changes in the work of the competitors	3.5469	0.92461	0.260	High	3
6	Business departments understand the IT environment	3.8125	0.92367	0.242	High	2
7	Using of balanced metrics to measure the contributions of IT and business	3.4219	1.02050	0.298	High	6
8	IT sector reacts quickly to the changing of business needs in the organization	3.2188	1.04606	0.324	Moderate	10
9	IT engages in strategic planning with business for enabling strategic objectives	3.3281	1.03976	0.312	Moderate	9
10	Implementing IT standards across functional business units	2.9844	0.89960	0.301	Moderate	7
	Mean Dimension	3.4953	0.69885	0.199	High	

3. Strategic Cooperation of the process: this variable is considered as the dependent variable of the study, which is a one-dimensional variable. The results of the statistical description of this variable presented in Table (6) confirmed the achievement of the item 7 (We include certain sources in the company's strategic planning process) with mean: (3.7031) SD of the lowest (0.88515) and CV: (0.239). A high answer level and RI comes first the first. While item 4: (Asking suppliers to take part in improving the delivery process) achieved a mean: (3.3281) with the highest SD: (1.34583), CV: (0.404), with a moderate answer level. This item comes at and the tenth

and last RI as compared to the rest of the other item. It is clear that all the items of this dimension range between high and moderate response levels, which indicates a remarkable similarity of views of the study sample.

Table (6)
descriptive statistics for the strategic coordination variable

No.	S. Descriptive Items	Mean	SD	CV	Response level	RI
1	We have continuous improvement programs involving key suppliers	3.8594	1.02147	0.264	High	4
2	We involve key suppliers in planning and goal setting of the activities	2.8594	1.15287	0.403	Moderate	9
3	We involve key suppliers in designing and developing new products	3.1406	1.08184	0.344	Moderate	8
4	Asking suppliers to take part in improving the delivery process	3.3281	1.34583	0.404	Moderate	10
5	We use external sources to improve capacity	3.7813	1.09063	0.288	High	6
6	We include certain sources in the company's strategic planning process.	3.6094	1.12147	0.310	High	7
7	We implement supplying process via forward auctions or tenders	3.7031	0.88515	0.239	High	1
8	We use advanced information systems to track and/or accelerate the orders	3.5469	0.97476	0.274	High	5
9	We measure and evaluate customer satisfaction	3.5469	0.92461	0.260	High	3
10	We provide after-sales support and assistance to customers capacity and let customers ask for help from us	3.8125	0.92367	0.242	High	2
	Mean Dimension	3.5188	0.62205	0.1767	High	

It should be noticed that before testing the hypothesis, the statistical description analysis requires certain preparation of a correlation matrix between the dimensions and variables of the research according to what is shown in the table (7). The main purpose of this is to ensure that there are no greater correlations (0.7, ratio) between the dimensions of the independent variable and the mediator. Considering the matrix, it becomes clear that there is no correlation between the dimensions of the independent variable on the one hand, and the mediating variable on the other.

Table (7)
Correlation matrix for search variables and dimensions

Variables & Dimensions		1	2	3	4	5	6
Improving and Planning Strategy	Pearson Correlations	1	.561**	.410**	.453**	.638**	.634**
	Significance		0.000	0.001	0.000	0.000	0.000
Depth and breadth of participation in the strategic planning process	Pearson Correlations	.561**	1	.513**	.338**	.679**	.615**
	Significance	0.000		0.000	0.006	0.000	0.000
Executive method of planning and goals	Pearson Correlations	.410**	.513**	1	.326**	.562**	.527**
	Significance	0.001	0.000		0.009	0.000	0.000
Method of communicating results across the organization	Pearson Correlations	.453**	.338**	.326**	1	.540**	.553**
	Significance	0.000	0.006	0.009		0.000	0.000
Strategic alignment of IT	Pearson Correlations	.638**	.679**	.562**	.540**	1	.894**
	Significance	0.000	0.000	0.000	0.000		0.000
Strategic coordination of the process	Pearson Correlations	.634**	.615**	.527**	.553**	.894**	1
	Significance	0.000	0.000	0.000	0.000	0.000	

We also need to prove the normal distribution of dimensional data and variables. Based on this, it is possible to use parametric test models (normal distribution tests), the results of which are shown in the table (8) the results of the (Kolmogorov-Smirnov) test, according to the following normal distribution hypothesis:

Ho: data – dimension and variables are normally distributed (HO: P=0)
H1: data dimension and the variables are not normally distributed (HO: P≠0).

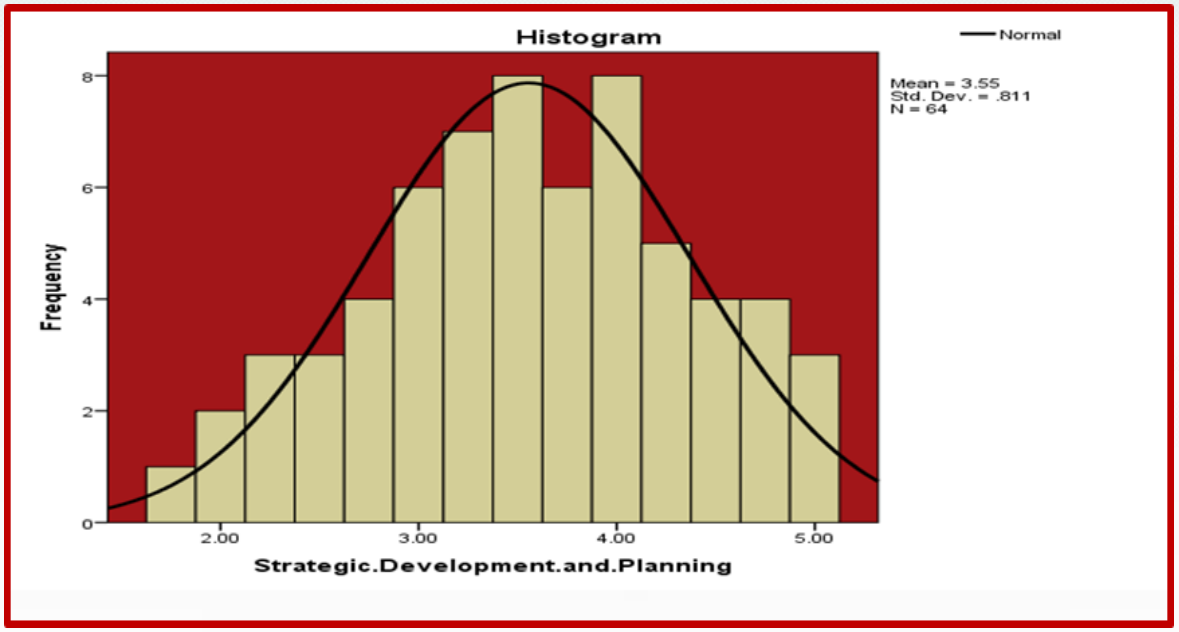
Table (8)
results of the normal distribution test for the dimensions of the study variables

Type of Testing	**Kolmogorov-Smirnov**		
	Statistics	**Sig. value**	**Sig.**
Variable **Dimension**	**Banking strategy**		
Improving and Planning Strategy	0.084	.200*	Non-significant
Depth and breadth of participation in the strategic planning process	0.099	0.193	Non-significant
Executive method of planning and goals	0.104	0.084	Non-significant
Method of communicating results across the organization	0.087	.200*	Non-significant
Strategic alignment of IT	0.060	.200*	Non-significant
Strategic coordination of the process	0.081	.200*	Non-significant

It is clear based on the table (8) that the tests of the normal distribution of the dimensions and variables of this paper were all non-significant. Accordingly, the alternative hypothesis was rejected and the normal distribution hypothesis was accepted. Figure (4) shows a graphical representation of data distribution after developing and planning a strategy. As for the rest values

of the normal distribution of dimensions and other variables, they were presented in the Figure (4).

Figure (4) Normal distribution of data the dimension of strategy development and planning



4. Hypothesis Testing: the multiple regression model was employed based on the structural equation modeling method to test the research hypotheses using (24 SPSS and 24 AMOS). That is by testing the direct effect of strategic maturity as an independent variable in the strategic coordination of the process as a dependent variable and the indirect effect of the strategic maturity variable on the strategic coordination of the process through the impact of the strategic alignment of IT as a mediator variable. The statistical procedures necessitated a number of conditions that must be met in the mediating test form, which were as follows:

a. The first condition is to test the relationship between the dimensions of strategic maturity as an independent variable and the strategic coordination variable of the process as a dependent variable. This is the hypothesis of the impact of the independent variable on the dependent variable, which was formulated according to the first hypothesis.
b. The test of the second condition embodied in the test of the direct impact between the dimensions of strategic maturity as an independent variable and the variable of strategic alignment with IT as an mediator variable, included in the second hypothesis.
c. The third condition is to test the relationship between the dimensions: strategic maturity as an independent variable and the strategic coordination variable of the process as a dependent variable with the presence of the strategic alignment variable of IT in the test model that is considered as a control variable.

Testing the first main hypothesis

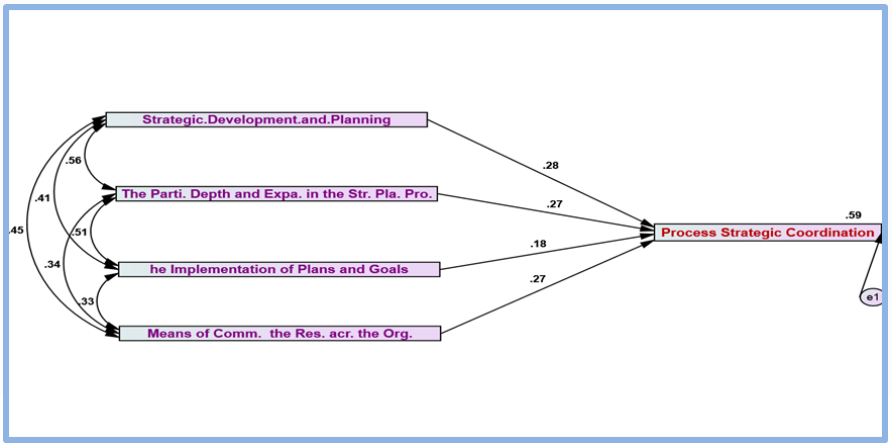
it is clear as shown in the table (9) that there is a significant effect of the dimensions (strategy development and planning, which has the strongest effect in terms of beta coefficient (β=.28. p=0.011) and the depth and breadth of participation in the strategic planning process (β=27., p=0.016). The delivery of results in the organization (β=.27, p=0.005) in the strategic coordination variable of the process). The method of implementing the plans and objectives had no significant effect on this predicted relationship (β=18, P>0.05). As for the interpretation of the model as a whole, which is expressed by R^2: (R^2 = .59) with complete statistical significance (P = 0.000). This means that (59%) of the variance of the strategic coordination of the process is explained by each of the significant dimensions in this model.

Table (9):
the testing results of the first main hypothesis

Statistical indicators / Hypotheses	β	t	Sig.	R^2	F	P
Improving and Planning Strategy---- strategic coordination	.28	2.639	.011			
Depth and breadth of participation in the strategic planning process	.27	2.483	.016			
Implementing method of planning and goals---- strategic coordination	.18	1.848	.070	.59	21.483	.000
Communicating of the results inside the organization---- strategic coordination	.27	2.890	.005			

Figure (5) clarifies testing of the relationship according to the first main hypothesis graphically using the (AMOS24) program, from which the regression courses and beta values above the unidirectional arrows appear from the dimensions of the strategic maturity variable towards the strategic coordination variable of the process.

Fig. (5) Regression courses of the relationship between the dimensions of strategic maturity and the strategic coordination variable



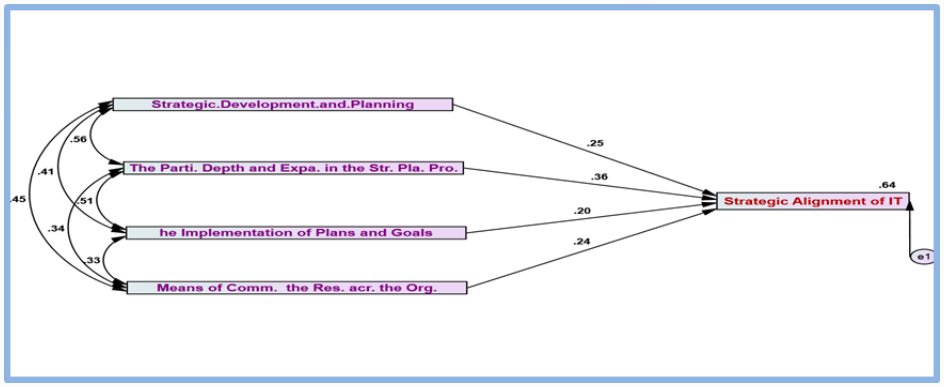
Testing the second main hypothesis

the results of testing this hypothesis, presented in the table (10), reveals a significant effect of all dimensions of the strategic maturity variable. This effect is represented by the dimension of strategy development and planning (. , P=0.001=β) and the dimension of implementing plans and objectives (20., P=0.036=β). Regarding the dimension of the method of communicating results across the organization (.24, P=0.008=β). These dimensions affect the strategic alignment variable for IT. The interpretation strength of the model as a whole, which is expressed by R^2: (R^2 = .64) with a complete statistical significance (P = 0.000). In other words, (64%) of the variance of strategic alignment for IT is explained by the strategic maturity variable.

Table (10):
the testing results of the second main hypothesis

Statistical indicators Hypotheses	β	t	Sig.	R^2	F	P
Strategic alignment --- Improving and Planning Strategy of IT	.25	2.440	.018			
Depth and breadth of participation in the strategic planning process of IT---	.36	3.507	.001			
				.64	26.473	.000
Strategic alignment --- Implementing method of planning and goals of IT	.20	2.145	.036			
Alignment--- communicating of results in the organization of IT	.24	2.741	.008			

Fig. (6) displays the statistical results of the second main hypothesis



This relationship was represented graphically and as shown in Figure (6), reveals the regression courses and beta coefficients mentioned above the one-way arrows dropping from the dimensions of the strategic maturity variable towards the strategic alignment variable for IT.

Testing the Third Main Hypothesis

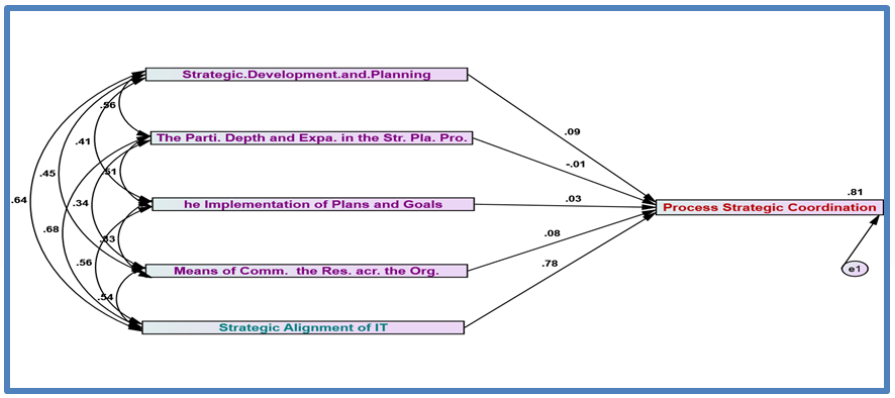
this hypothesis shows the results of testing the third condition of the relationship between the three research variables. The results of testing this hypothesis, which is presented in the table (11), revealed a significant effect of the strategic alignment variable of IT: (.78, P = 0.000 = β) on the strategic coordination variable with the presence of the strategic maturity variable. As for the interpretation strength of the model as a whole, which is expressed by the coefficient of determination (R^2 = .81) in a complete statistical significance (P = 0.000), meaning that: (81%) is variance of the strategic coordination variable.

Table (11)
The results of testing the third hypothesis

Statistical indicators Hypotheses	β	t	Sig.	R^2	F	P
Developing and planning of the strategy ---- strategic coordination of the process	.09	2.380	.047			
Depth and breadth of participation in the strategic planning --- strategic coordination	-.01	-.120	.905	.81	58.645	.000
Implementing method of planning and goals ---- Strategic alignment	.03	.386	.701			
Method of communicating results in the organization --- strategic coordination	.08	2.208	.049			
Strategic alignment of IT --- strategic coordination	.78	8.226	.000			

The graphic representation of this relationship, as shown in Figure (7), shows the regression directions and beta coefficients above the one-way arrows dropping from the dimensions of the strategic maturity variable towards the strategic coordination variable of the process in the presence of the strategic alignment variable of IT.

Fig. (7) Regression directions of the relationship between the dimensions of strategic maturity and the strategic coordination variable in the presence of the strategic alignment variable of IT



Testing the fourth main hypothesis

The results of testing this hypothesis confirmed the significant effect of the four-dimensional directions of the independent variable on the strategic alignment variable for IT, according to what is presented in the table (12). The table expresses the results of the direct and indirect impact of the dimensions of strategic maturity as an independent variable through the strategic alignment of IT as a mediator variable. They are, respectively, the direction of the impact for the dimension of strategic planning and development (β=.25, p=0.018) and the direction of the impact for the dimension of depth and breadth of participation in the strategic planning process with the strongest impact in terms of the beta lab (β=36., p=0.001) and the direction of the impact for how plans and objectives are implemented dimension (β=.20, p=0.036) and the direction for the way to deliver results across the organization dimension (β=.24,p=0.008). As for the explanatory power of these four dimensions in explaining the variance of the strategic suitability of IT, it reached (R2 = .64), with a complete statistical significance (P = 0.000). Moreover, the effect of the strategic

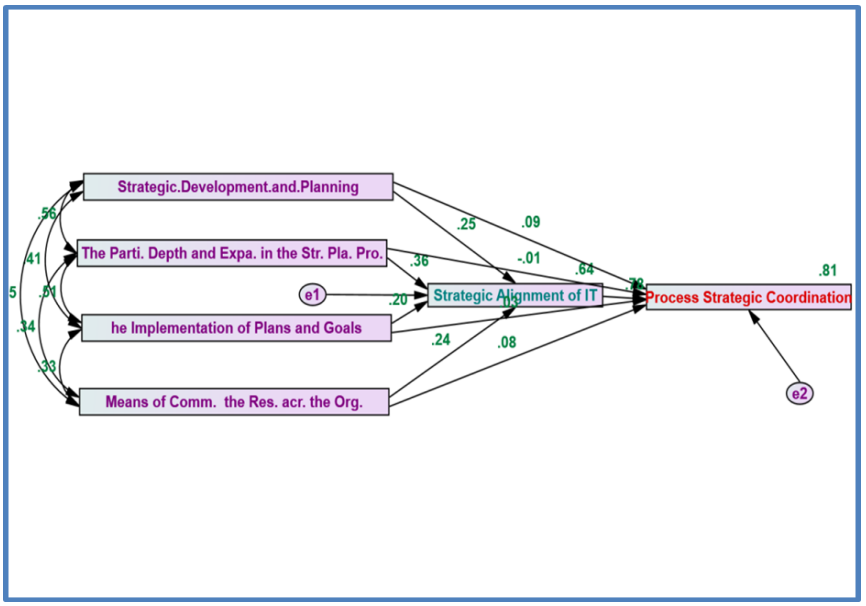
alignment variable of IT on the variable of the strategic coordination of the process (β=.78, p=0.00) it was significant. It is evident from the table (12) that there is a direct significant effect of only two dimensions, namely the dimension of strategy development and planning (β=.09, p=0.047) and the dimension of the method of communicating results across the organization (β=.153, p=0.000). (R2=.81) in perfect statistical significance (P=0.000).

Table (12)
results of testing the fourth main hypothesis of the mediating role

Statistical indicators Hypotheses	**β**	**t**	**Sig.**	**R^2**	**F**
Developing and planning of the strategy ---- strategic coordination of the process	.09	2.382	.047	.59	.000
Depth and breadth of participation in the strategic planning --- strategic coordination	-.01	-0.408	.619		
Implementing method of planning and goals ----Strategic alignment	.03	0.998	.550		
Method of communicating results in the organization --- strategic coordination	.08	2.283	.049		
Developing and planning of the strategy---- strategic alignment of IT	.25	2.440	.018		
Depth and breadth of participation in the strategic planning---- strategic alignment of IT	.36	3.507	.001	.81	
Implementing method of planning and goals--- strategic alignment of IT	.20	2.145	.036		
Method of communicating results in the organization---- strategic alignment of IT	.24	2.741	.008		
strategic alignment of IT---- strategic alignment of the process	0.78	7.543	.000		

Figure (8) clarifies the direct and indirect impact courses described through the relationships of the fourth main hypothesis. This hypothesis is related to the tests of the mediating role (strategic alignment of information technology) on (the studied relationship between the dimensions of strategic maturity and strategic coordination of the process). It proved that the dimension of (strategy development and planning) and (the method of communicating results across the organization) had a direct impact on change and an indirect one through (strategic alignment of information technology) on the (strategic coordination of the process). Thus, the partial role of the mediator was confirmed by these dimensions in the relationship studied in this paper.

Fig. (8) shows the courses of the mediating role of the strategic alignment variable of IT



Conclusions

1. The variation of the study sample responses in developing and planning the strategy and reviewing it actively using the tools of strategic analysis through the available environmental data indicates that there is a difference in the opinions of the sample about the amount of interest shown by the administration about the maturity of its strategic direction. Accordingly, the study sample indicated a relative weakness in the strategic development process.
2. It is concluded that there is a variation in the study sample answers about the extent of participation of individuals, specialists, and stakeholders, as well as there is a clear difference in the extent to which the strategy is unified at the level of the organization.
3. The reason for the variation arising in implementing plans and objectives is the lack of correlation of the operations and activities in the organization by the study sample with the strategic plans. In addition, failing to discuss the variations of the departments to the plans and implementation shows noticeable variations.
4. The results of the research proved people's satisfaction with IT. However, the sample answers indicate that there is no strong interaction of the IT function with urgent environmental developments and with the company's changing needs over time and its modest contribution to enable the implementation of plans and goals.
5. Many variations in the opinions of the study sample regarding the process of developing and improving the product by suppliers. Moreover, the sample's opinions indicate variations in improving the receipt of materials.
6. It is reflected through the variations explained by strategic maturity by its dimensions the variance of the strategic coordination of the process through its contribution to coordinating development and strategic planning aimed at improving and developing the process.
7. The strategic maturity, according to the opinions of the sample, plays a role in improving the strategic alignment with IT, and this is confirmed by the value of the interpretation coefficient.
8. The existence of cooperation of the joint effect related to the strategic maturity and strategic alignment of IT in the strategic coordination of the process and according to the value of the interpretation coefficient in the inclusion test.
9. IT strategic alignment plays mediating role between the variable (strategic maturity) and the variable (strategic coordination of the process) with two dimensions (the depth and breadth of participation and the strategic planning process) and (the method of implementing plans and goals) from the dimensions of (strategic maturity).

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