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# THE IMPACT OF INFORMATION TECHNOLOGY ON STRATEGIC AGILITY IN THE YEMENI TELECOMMUNICATIONS SECTOR

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#### Abstract

This research Work aimed to investigate the impact of information technology on strategic agility in the Yemeni telecommunications sector. The researcher used the descriptive analytical method and to collect field data, he relied on the questionnaire tool the size of the study population was (806) male and female workers, and a sample was taken using the stratified random sampling method, representing its size of (261) male and female workers.

#### The most prominent results were

The level of availability of information technology in the communications sector understudy is high in all dimensions, the level of availability of strategic agility in the communications sector under study is high, and there is an impact of information technology (hardware and equipment - software - databases - communication networks - skills Individuals) on strategic agility in the Yemeni telecommunications sector.

**Keywords**: Information Technology Strategic Agility.

# THE INTRODUCTION

During the last years of the twentieth century and the beginning of the twenty-first century, the world witnessed rapid developments in information technology, which were evident in the emergence of the Internet and the rapid development of computers, software, and the means of communication. Information technology became a basic criterion for judging the progress of nations and the speed of their development This forced business companies to modernize Its systems, communication devices, and methods of work to survive in a highly competitive environment characterized by continuous change (Qabas and Saniyah, 2016, 390) the introduction of information technology with its components (hardware and equipment - software - databases - communication networks - individuals' skills) has become a Business companies has become one of the most important technical developments in contemporary history, that aimed to improve the level of the sector (Kharis 2011, 2).

In light of what the corporate environment is witnessing today, the changes and developments in the corporate environment have imposed many challenges, which led most of the Corporales Slreng Then of their capabilities by adapting The variables and The environmental influences as Well a show to benefit from and confront these changes, then they began to seek to enhance their agility and strategic flexibility to improve the company's performance in a sustainable manner, leading to Excellence A performance has been linked to the company's life, survival, and continuity This depends on the company's ability to exploit all its capabilities effectively





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(Al-Qurashi, 2017, 135).

Strategic agility is considered one of the most important means and tools that help the company in developing its strategic flexibility, which is essentially linked to The continuous monitoring of the course of events of its competitive environment and monitoring the various changes that occur in the external environment in order to quickly adapt to it Ibalso demonstrates the distinguished management's ability to optimally use resources (Bovas, 2017, 104)

The general framework and previous studies are considered the most important elements of the study chapters, as through them the basic components of his study are crystallized for the researcher Therefore, this article dealt with the general framework with all its components as the first axis, then dealt with The previous studies related to the variables of In addition to clarifying the similarities and differences between the previous studies and The current study as the second focus of this article

# The Study Problem and its Questions

Business sectors are plagued with instability, as they face many complex crises and challenges, which have prompted it To find innovative solutions and ideas to confront these crises, it requires environmental adaptation for the sector in order to achieve the impact of information technology on the desired strategic agility, as it is the basic foundation for the development, prosperity and continuity of sectors in general and the communications sector in particular.

The communications sector in Yemen represents an essential component of the national infrastructure and has an important role in economic growth, it also contributes to providing a large number of job opportunities. However, it is now facing a large number of challenges because of the exceptional political circumstances and turmoil that Yemen is going through. The Communications sector is suffering suffer from instability in a way that it's their ability to adapt to environmental variables and influences, which requires developing a modern methodology to advance its reality and to keep pace with the rapid developments the sestorand searching for new methods of managing it.

Accordingly, the problem of the study can be clarified through the following main question:

# What is the impact of information technology on the Strategic agility in the Yemeni telecommunications sector? And the following sub-questions arise from it:

- 1. What is the level of availability of information technology from the point of view of those working in the communications sector?
- 2. What is the level of availability of strategic agility from the point of view of those working in the communications sector?

# **Study Hypotheses**

Through the problem, questions and objectives of the study, and after reviewing the theoretical foundations of the relevant research variables, the linking relationship between the study variables and the hypotheses was determined as the initial solution to the problem, which will be tested and confirmed for validity using different methods as shown:





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The main hypothesis is: There is no statistically significant effect at the level  $(0.05 \ge \alpha)$  of information technology in its dimensions (hardware and equipment - software - databases - communication networks - individuals' skills) on Strategic agility in its dimensions (Strategic sensitivity - collective commitment - fluidity of resources - clarity of vision - core capabilities - selection of strategic objectives In the Yemeni telecommunications sector)

# The Importance of the Study

The importance of the study Lies in the following.

# Scientific (Theoretical) Importance

- 1. It contributes on building knowledge and bridging the scientific and knowledge gap in the field of information technology and strategic agility.
- It will represent a new addition to the Previons researches and studies written about the impact of information technology on Strategic agility it will also work to provide the library with a modern source of knowledge, and will open new doors for researchers in this field.

### **Practical (applied) Importance**

- 1. Improving the effective use of information technology in the Yemeni communications sector and improving strategic agility using this technology.
- 2. Providing new and useful information on how to improve institutional performance in the Yemeni telecommunications sector using information technology As. well as improving strategic agility in this sector.
- 3. Contributing to increasing awareness among administrative leaders about the impact of information technology on Strategic agility, and providing solutions that improve performance.

#### **Study Methodology and Procedures**

The study relied on the descriptive analytical approach to determine the impact of information technology, as an independent variable, on Strategic agility as a dependent variable, with the aim of verifying that the results of this effect support theoretical expectations in increasing the interaction between the variables of the study, and a better understanding of the effect that exists between these variables, and the extent of analysis, linking and interpretation between them, in order to reach conclusions upon which recommendations and proposals can be built upon by the study community for Yemeni Communications .

# **Study Population**

The study population means the total group of people to whom the researcher seeks to generalize the results. The study population consists of (806) male and female workers as shown in Table (1)







Table (1): Number of workers in the Yemeni telecommunications sector under study at each administrative level

Administrative level	TeleYemen	Yemen Telecom	Yemen Mobile	YOU	Sabafon	Nabaa Al hudhd	Total
Executive Director	1	1	1	1	1		5
Deputy Executive Director Sector Head		4	3	9	5	1	22
General managers	4	15					19
Director of the Department	17	71	15	84	59	7	253
Head of the Department	45	165	62	123	97	15	507
The Total	67	256	81	217	162	23	806

# The Study Sample

A stratified random sample was chosen in the application of this study because the study targets were at different administrative levels in the companies under study. The sample size was determined according to Morgen's rule, and the total number of the study population was (806) executive director, deputy executive director, general manager, and administration director, department head The total sample size according to Morgen's rule is (261) male and female workers distributed as follows 22 from TeleYemen Company, 84 from the General Telecommunications Corporation, 26 from Yemen Mobile Company, 70 from YOU Company, 52 from Sabafon Company, 7 from Nabaa Al-Hudhud Company at various administrative levels. The distribution of the sample at each administrative level in the companies under study can be clarified according to Table (2)

Table (2): Sample size in the companies under study

Administrative level	TeleYemen	Yemen Telecom	Yemen Mobile	YOU	Sabafon	Nabaa Al hudhd	Total
Total community	67	256	81	217	162	23	806
Relative sample	22	84	26	70	52	7	261

In order for the study to achieve the specified sample and in order to avoid any loss in the returned questionnaires, a number of (360) questionnaires were distributed and the number of questionnaires suitable for analysis reached (249) questionnaires with a verification rate of 95.40% of the percentage of the sample required for the study. Table (3) shows the details of the distribution, recovery and analysis of the questionnaires (3)

Table (3): Distribution, retrieval and analysis of questionnaires

Company Name	Distributed Questionnaires	Retrieved Questionnaires	Damaged Questionnaires	Analyzed Questionnaires
TeleYemen	30	25	3	22
Yemen Telecom	115	89	9	80
Yemen Mobile	36	26	0	26
YOU	97	70	6	64
Sabafon	72	52	2	50
Nabaa Al hudhd	10	8	1	7
the total	360	270	21	249





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#### STUDY RESULTS AND DISCUSSION

# First Answering the Questions of Mesludy

The following is a presentation of the results of the study: To answer the main question of the study: What is the impact of information technology on enhancing regulatory genes in the Yemeni telecommunications sector? The following questions arise from it:

1. Show the results of the first question which is what is the level of availability of information technology from the point of view of those working in the communications sector?

To answer this question, the researcher presented the results at the level of each dimension separately, according to its paragraphs, to determine the level of availability of information technology. The arithmetic means and standard deviations were extracted, as follows:

Table (4): Arithmetic means and standard deviations of the average responses of study sample members on the dimensions of the first axis (information technology) and the overall average of the axis

Dimensional Arrangement	The Dimension	SMA	Standard Deviation	Percentage	Availability Level
1	Dimension :Devices and equipment	5.45	1.01	77.86%	High
2	Dimension :Software	5.44	0.93	77.71%	High
5	Dimension :Databases	5.14	1.03	73.43%	High
3	Dimension Communications networks	5.41	1.03	77.29%	High
4	Dimension :Individual skills	5.26	0.96	75.14%	High
Overall averag technology)	5.34	0.88	76.29%	High	

Table (4) shows that: The highest availability of the dimensions of the information technology axis in the Yemeni telecommunications sector from the point of view of employees is represented by the hardware and equipment dimension at a high level, followed in second place by the software dimension at a high level, then in third place by the communications networks dimension at a high level, and in fourth place. The individuals skills dimension was at a high level, and the databases dimension came in fifth and final place at a high level

The results of the study also showed that the level of availability of information technology in the Yemeni communications sector from the point of view of the employees, was generally high, as it obtained an arithmetic mean of (5.34) with a standard deviation of (0.88) and a percentage of (76.29%).

The researcher attributes this result to the keenness of the sector under study to provide modern and advanced devices and equipment that are characterized by high efficiency and compatibility with the latest Technologies, which leads to improving the quality of services, providing the necessary software and applications to improve internal processes and services provided to users, to excel in protection and the stability of their functional performance,





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training workers to use information technology to obtain high skills, and providing the necessary resources to develop and update the necessary technologies tools and skills.

### 2. Show the results of the second question

What is the level of strategic agility from the point of view of those working in the communications sector to answer this question, the researcher presented the results at the level of each dimension separately, according to its paragraphs, to know the level of availability of regulatory genes, where arithmetic means and standard deviations were extracted as follows:

Table (5): Arithmetic means and standard deviations of the average responses of study sample members on the dimensions of the third axis (strategic agility) and the overall average of the axis

Dimensional Arrangement	The dimension	SMA	Standard Deviation	Percentage	Availability Level
2	Dimension Choosing strategic objectives	4.94	1.03	70.57%	High
5	Dimension Strategic sensitivity	4.7	1.04	67.14%	High
4	Dimension Resource liquidity	4.77	1.09	68.14%	High
6	Dimension Collective commitment	4.56	1.02	65.14%	Medium
3	Dimension clarity of vision	4.78	1.02	68.29%	High
1	Dimension :core capabilities	5.04	0.97	72.00%	High
Overall avera	ge of dimensions (strategic agility)	4.8	0.92	68.57%	High

Table (5) shows that: The highest availability of the dimensions of the strategic agility axis in the Yemeni telecommunications sector from the point of view of employees is represented by the dimension of core capabilities at a high level, followed in second place by the dimension of choosing strategic objectives at a high level, then in third place by the dimension of clarity of vision at a high level, and in fourth place by the dimension of fluidity of resources at a high level Homever the strategic sensitivity dimension came in fifth place, at a high level, while the sixth and final rank was the collective commitment dimension which was at a moderate level.

The results of the study also showed that the level of availability of strategic agility in the Yemeni telecommunications sector from the point of view of employees in general was high, as it obtained an arithmetic mean of (4.80) with a standard deviation of (0.92) and a percentage of (68.57%). The researcher attributes that the results obtained in The telecommunications sector in Yemen enjoys a high level of strategic agility, Moneverthe arrangement of the various dimensions in the study indicates that the core capabilities are the most available dimension in the Yemeni telecommunications sector, which indicates that the telecommunications sector in Yemen possesses the essential capabilities necessary to achieve its strategic objectives. The ranking also indicates that the selection of strategic objectives, clarity of vision, fluidity of resources, and strategic sensitivity are also an important dimension in the strategic agility of the Yemeni telecommunications sector, all of which obtained a high level in the study. The ranking indicates that the dimension of collective commitment is the least available dimension in this sector, but its level was average, which indicates that there is a way for improving collective commitment in the Yemeni telecommunications sector. These results can be relied





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upon in making decisions related to improving performance and developing the communications sector in Yemen, as well as improving the level of strategic agility in this sector, besides improving the level of collective commitment to achive strategic goals.

# Second: Testing the validity of the study hypotheses

There is no statistically significant effect at the level  $(0.05 \ge \alpha)$  of information technology in its dimensions (hardware and equipment - software - databases - communication networks - individuals' skills) on strategic agility in the Yemeni telecommunications sector.

The following sub-hypotheses emerge from this hypothesis

# Testing the first sub-hypothesis

There is no statistically significant effect at the level  $(0.05 \ge \alpha)$  of devices and equipment on strategic agility in the Yemeni telecommunications sector.

To verify the validity of the hypothesis the researcher used a simple linear regression coefficient to calculate the correlation between the independent variable (devices and equipment) and the dependent variable (strategic agility). The results were as shown in the following table

Table (6): shows the simple linear regression coefficient between the independent variable (devices and equipment) and the dependent variable (strategic agility)

		Dependent variable : strategic agility								
	Model	summary	ANOV	A test results	Regression coefficient and test results (T)					
Independe										
nt variable equipment and tools	t determination	value (F)	Significance level Sig.	Degree of influence Beta	value (T)	Significance level Sig.				
	0.593	0.351	133.71	0.000	0.536	11.563	0.000			

Through table (6) Previously, the results of the analysis of the relationship between the independent variable (devices and equipment) and the dependent variable (strategic agility) showed the existence of a significant relationship Statistically between the two variables, the correlation factor reached (R=0.593), which is a positive correlation coefficient and has a moderate, statistically significant direct relationship, where the level of significance was (0.000), while the coefficient of determination (R2=0.351) meaning that (35.1 %) of The variation in changes resulting from (strategic agility) is mainly due to the dimension of the independent variable (devices and equipment), And (64.9 %) of the residuals are due to the variation in the changes that occur in strategic agility It is due to other variables, and the degree of influence or tendency reached  $\beta=0.536$  This means that an improvement in the provision of (devices and equipment) by one degree results in an improvement in Strategic agility) by 53.6%





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It also emlhasis the calculated F value, which reached (133.710), as well as the calculated T value, which amounted to (11.563), with a significance level of (0.000), which is less than the moral significance level (0.05)

From the above and through the correlation coefficient between the two variables R and the coefficient of determination R2, The regression coefficient  $\beta$ , the value of F, the value of T, and the level of statistical significance. And accordingly, it was reached to reject the null hypothesis and accept the alternative hypothesis, which states that: There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of devices and equipment on strategic agility in the Yemeni telecommunications sector, and the level of this effect is moderate.

# **Testing the second sub-hypothesis**

# There is no statistically significant effect at the level $(0.05 \ge \alpha)$ of software on strategic agility in the Yemeni telecommunications sector

To verify the validity of the hypothesis the theresearchers used a simple linear regression coefficient to calculate the correlation between the independent variable (software) and the dependent variable (strategic agility). The results were as shown in the following table: (7).

Table (7): shows the simple linear regression coefficient between the independent variable (software) and the dependent variable (strategic agility)

	Dependent variable : strategic agility								
Independent	Model	summary		st test results NOVA)	Regression coefficient and test results (T)				
variable Software	Correlation lab R	The coefficient of determination R2 -	value (F)	Significance levelSig.	Degree of influence Beta	value (T)	Significance level Sig.		
	0.67	0.449	201.165	0	0.66	14.183	0		

Through table (7) Previously, the results of the analysis of the relationship between the independent variable (software) and the dependent variable (strategic agility) showed the existence of a significant relationship Statistically between the two variables, the correlation factor reached (R=0.670) , which is a positive correlation coefficient with a large, statistically significant direct relationship, where the level of significance was (0.000) Homever coefficient of determination is R2=0.449 meaning that (44.9 %) of the variance in the changes dependent on ( strategic agility) is mainly due to the independent variable (software) , And (55.1 %) of the remainder is the variance in the changes that occur in strategic agility It is due to other variables , and the degree of influence or tendency reached ( $\beta=0.660$ )This means that an improvement in the provision of (software) by one degree results in an improvement in (Strategic agility) by 66.0 %

It also calculated F confirms the value, which reached (201.165), as well as the calculated T value, which amounted to(14.183), with a significance level of(0.000), which is less than the moral significance level (0.05)





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From the above and through the correlation coefficient between the two variables R and the coefficient of determination R2, The regression coefficient  $\beta$ , the value of F, the value of T, and the level of statistical significance. Accordingly, it was reached to reject the null hypothesis and accept the alternative hypothesis, which states that: There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of software on strategic agility in the Yemeni telecommunications sector, and the level of this effect is large

# Testing the third sub-hypothesis

# There is no statistically significant effect at the level $(0.05 \ge \alpha)$ of databases on strategic agility in the Yemeni telecommunications sector

To verify the validity of the hypothesisthe the researcher used a simple linear regression coefficient to calculate the correlation between the independent variable (databases) and the dependent variable (strategic agility). The results were as shown in the following table (8).

Table (8): Shows the simple linear regression coefficient between the independent variable (databases) and the dependent variable (strategic agility)

		Dependent variable: strategic agility							
Independent variable Databases	Model	summary The		et test results NOVA)	Regression coefficient and test results (T) Correlation lab R				
	Correlation lab R	coefficient of determination R2 -	value (F)	Significance level Sig.	Degree of influence Beta	value (F)	Significance level Sig.		
	0.649	0.421	179.281	0	0.575	13.39	0		

Through table (8), the results of the analysis of the relationship between the independent variable (databases) and the dependent variable (strategic agility) showed the existence of a significant Statistically relationship between the two variables, the correlation factor reached (R=0.649) which is a positive correlation coefficient with a large, statistically significant direct relationship, where the level of significance was (0.000). However the coefficient of determinationis R2=0.421meaning that (42.1 %) of the variance in the changes dependent on (strategic agility) is mainly due to the independent variable (software), As for (57.9%) of the remainder, there is variation in the changes that occur in strategic agility It is due to other variables, The degree of influence or tendency  $\beta = 0.575$  which means that improving the provision of (databases) by one degree results in an improvement in (Strategic agility) by 57.5%

It confirms calculated F value, which reached (179.281), as well as the calculated T value, which amounted to (13.390), with a significance level of (0.000), which is less than the moral significance level (0.05)

From the above and through the correlation coefficient between the two variables R and the coefficient of determination R2The regression coefficient  $\beta$ , the value of F, the value of T and the level of statistical significance. Accordingly, it was the null hypothesis was vejected and





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accept the alternative hypothesis, which states that: There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of databases on strategic agility in the Yemeni telecommunications sector, and the level of this effect is large.

# Testing the fourth sub-hypothesis

There is no statistically significant effect at the level  $(0.05 \ge \alpha)$  of telecommunications networks on strategic agility in the Yemeni telecommunications sector.

To verify the validity of the hypothesis, the researcher used a simple linear regression coefficient to calculate the correlation between the independent variable (communication networks) and the dependent variable (strategic agility). The results were as shown in the following table:

Table (9): shows the simple linear regression coefficient between the independent variable (communication networks) and the dependent variable (strategic agility)

	Dependent variable: Strategic Agility								
Independent variable Communication networks	Model summary  The coefficient		Contrast test results (ANOVA)		Regression coefficient and test results (T) Correlation lab R				
	Correlation lab R	of determinationR2 -	value (F)	Significance level Sig.	Degree of influence Beta	value (F)	Significance level Sig.		
	0.598	0.358	137.74	0	0.534	11.736	0		

Through the previous table (9) the results of the analysis of the relationship between the independent variable (communication networks) and the dependent variable (strategic agility) showed the existence of a significant relationship Statistically between the two variables, the correlation factor reached (R=0.598), which is a positive correlation coefficient with a moderate, statistically significant direct relationship , where the level of significance was (0.000) As for the coefficient of determination (R2=0.358) meaning that (35.8 %) of the variance in the changes dependent on (strategic agility) is mainly due to the independent variable (communication networks), And (64.2%) of the residuals vary in the changes that occur in strategic agility It is due to other variables , and the degree of influence or tendency reached  $\beta = 0.534$ . This means that an improvement in the provision of (communications networks) by one degree results in an improvement in Strategic agility by 53. 4% calculated F value, which reached (137.741), as well as the calculated T value, which amounted to(11.736) with a significance level of(0.000), which is less than the moral significance level (0.05).

From the above and through the correlation coefficient between the two variables R and the coefficient of determination R2, The regression coefficient  $\beta$ , the value of F, the value of T, and the level of statistical significance.





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Accordingly, it was reached to reject the null hypothesis and accept the alternative hypothesis which states that:

There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of telecommunications networks on strategic agility in the Yemeni telecommunications sector, and the level of this effect is moderate

There is no statistically significant effect at the Testing the fifth sub-hypothesis there is no statistically significant effect at the level  $(0.05 \ge \alpha)$  of individuals' skills on strategic agility in the Yemeni telecommunications sector

To verify the validity of the hypothesis, the researcher used a simple linear regression coefficient to calculate the correlation between the independent variable (individual skills) and the dependent variable (strategic agility). The results were as shown in the following table

Table (10): shows the simple linear regression coefficient between the independent variable (individual skills) and the dependent variable (strategic agility)

		Dependent variable: strategic agility								
Independent variable People skills	Model summary  The coefficient		Contrast test results (ANOVA)		Regression coefficient and test results (T )Correlation lab R					
	Correlation lab R	of determination R2 -	value (F)	Significance level Sig.	Degree of influence Beta	value (F)	Significance level Sig.			
	0.635	0.403	166.74	0	0.604	12.913	0			

Through table (10) the results of the analysis of the relationship between the independent variable (individual skills) and the dependent variable (strategic agility) showed the existence of a significant Statistically relationship between the two variables, the correlation factor reached (R=0.635), which is a positive correlation coefficient with a large, statistically significant direct relationship, where the level of significance was (0.000) How eves the coefficient of determination R2=0.403) meaning that (40.3 %) of the variance in the changes dependent on (strategic agility) is mainly due to the independent variable (individual skills) And (59.7%) of the residuals are due to the variance in the changes that occur in strategic agility It is due to other variables , and the degree of influence or tendency reached  $\beta=0.604$ . This means that an improvement in the provision of (individual skills) by one degree results in an improvement in (Strategic agility) by 60. 4 % calculated F value, which reached (166.740), as well as the calculated T value, which amounted to(12.913), with a significance level of(0.000), which is less than the moral significance level. (0.05).

From the above and through the correlation coefficient between the two variables Rand the coefficient of determination R2, The regression coefficient  $\beta$ , the value of F, the value of T, and the level of statistical significance. Accordingly, it was reached to reject the null hypothesis and accept the alternative hypothesis, which states that: There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of individuals' skills on strategic agility in the Yemeni telecommunications sector, and the level of this effect is large.





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To ascertain the extent of the influence of the dimensions of the independent variable: information technology (hardware and equipment - software - databases - communication networks - individuals' skills) combined on the dependent variable (strategic agility), the researcher used a multiple linear regression test, and the results were as shown in the following table:

Table (11): shows the results of multiple linear regression analysis of the effect of the combined dimensions of the variable (information technology) on strategic agility.

	Summary of models			ANOVA_		Regression coefficients and testing (T)			Variance inflation factors
Dependent variable	Dimensions of the independent variable	Correlation coefficient	The coefficient of determination	value (F)	Level of significance	value	ue value Significance level		VIF
'	(information technology)	R	R2 -			В	(T)		
ity	equipment and tools				0.000	0.009	0.118	0.906	3.314
iligu	Software					0.299	3.509	0.001	3.868
gic a	Databases	0.728	0.529	54.681		0.209	3.059	0.002	3.06
Strategic agility	Networks					0.02	0.285	0.776	3.15
Str	People skills					0.248	3.909	0	2.297

The results in Table (11) showed that: The correlation between the independent variable (information technology) and the dependent variable (strategic agility) is statistically significant, as the correlation coefficient between the two variables was R= 0.728, which is a large positive direct relationship

The significance of the correlation between the two variables is also confirmed by the Fvalue of (54.681) with a significance level of (0.000) at the significance level of (0.05), which confirms the efficiency of the independent variables combined in explaining the dependent variable (strategic agility), in addition to the value of the coefficient of determination of R2= 0.529, which confirms the significance of the regression, which shows that the dimensions of the independent variable (information technology) together explain (52.9%) of the variance in the variables occurring in improving the level of strategic agility, while the remainder explains (47.1%) of the changes that occur in strategic agility due to factors Other than the dimensions of information technology, the results also show that information technology represents an important factor in improving strategic agility, and that the greater the interest in providing information technology leads to an increase in improving strategic agility in the Yemeni communications sector.

The regression coefficients also show the relative importance of the independent variables when they influence the level of improving strategic agility, and they are combined as follows





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There is a statistically significant effect of the interaction of variables software, databases, individuals' skills in improving strategic agility, as the results showed that the value of the beta effect rate  $\beta$  was (0.299, 0.209,0.248), respectively, with a significance level of (0.001, 0.002, 0.000) respectively, and they are less than the level of moral significance(0.05) This result indicates that, assuming the effect of any other variables is neutralized, an increase in the improvement of (software, databases, personnel skills) by one degree will lead to an increase of(75.6%) in the level of Strategic agility in the communications sector. It was found that the software dimension is considered the most influential dimension in strategic agility, followed by the individuals' skills dimension and then databases. As for the dimensions of hardware, equipment and communication networks, their influence is weak when these factors combine with each other.

The value of the variance inflation factors VIF also showed that there was no problem of multicollinearity between the variables, as the inflation factors were less than (10).

Based on the above, the first main hypothesis is rejected in its zero form, and the main alternative hypothesis is accepted, which states There is a statistically significant effect at the level  $(0.05 \ge \alpha)$  of information technology in its dimensions (hardware and equipment - software - databases - communication networks - individuals' skills) on agility. Strategy in the Yemeni telecommunications sector.

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