

# Impact of Using Electronic Management in achieving the entrepreneurial performance of the Organization: An applied Study in Iraq Zain Communications Company

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The goal of the research is to identify the reality of the application of electronic management in the target organization, and to know the reflection of the application on its progress and the increase of entrepreneurial performance in it and to jump from traditional work to entrepreneurial work. In addition to identifying what requirements should be provided by the target organization for applying or working by the electronic management. This is achieved by identifying the mechanism of work adopted in Zain Communications Company where electronic management is applied to show the contribution of the electronic management to the development of administrative work. In accordance with that, a questionnaire was used to collect data and information from the research sample to obtain the results after using a set of statistical methods to make recommendations.

**Key words:** *Electronic Management, Performance, Entrepreneurial.*

## **Introduction**

Information technology plays a major role in bringing about various transformations in the administrative work, where it contributed to the development of many stages and methods and provide information in a timely and at the lowest possible cost. When the organization reaches the level of entrepreneurship and skips the Red Ocean of the organizational conflict and reaches the Blue Ocean, then it will be able to stand up to organizations without any competition because it is unique in its innovative products and services in the market. It is an important goal for the business organizations to meet their ambition in gaining a differentiation in their field of work to attract the largest market share. Hence, this represents the end result of the organization's employment of all its resources, whether material or human, represented by the human element that exists in the organization, or an external human element that the organization benefits from her/his experiences by contracting with her/him. This due to what the human element's ability to innovate since excellence and achieving goals does not only mean standing but goes beyond that to reach creativity in the field of achieving goals towards entrepreneurship in the market and to be the focus of other organizations, as the entrepreneurial performance requires formulating assisting strategies and creativity in the field of implementation as well as the use of modern technology, building a competitive dynamic and possessing highly skilled human capabilities.

Because of the changes that the world is witnessing today, many of the institutions have already adopted the electronic management for their ability to simplify procedures within the institutions, and shorten the time for the implementation of administrative transactions, and this has generated the usefulness of electronic management applications in conducting a major improvement in strategies or politics and to reviewing them from time to time in order to ensure the quality of the work and to move the performance to the entrepreneurship. Hence, from these facts the question arises to find a scientific explanation about the relationship between the electronic management techniques and variables and their reflection on achieving the entrepreneurial performance of the organization

## **Theoretical Framework of the Research**

### ***Electronic Management Concept***

The electronic management depends mainly on the use of a mixture of information and communication technology to carry out all the administrative processes of an organization and in order to improve its performance and enhance its competitive position. Due to the multiplicity of opinions of writers and researchers on the concept of e-management, we present the following definitions:

((The strategic approach of managing dynamic and future organizations through the implementation of the performance system and is based on technology, it focuses on

automation, integration and artificial intelligence using rapid and systematic development towards creating a knowledge environment to achieve the organization's vision. (Yao,2011:16). The management that is based on the use of all modern management techniques and communication networks to accomplish the administrative processes of planning, organizing, guidance and control, which will reduce the cost and achieve accuracy and speed in the completion of administrative work (AL-Manea , 2015:9). (Li, 2003) indicated that it is the tool that uses the Internet, information technology and other communication systems by integrating the organization's processes with the applications of this technology with the aim of improving the quality of performance and achieving efficiency and effectiveness of the organization.))

### ***Electronic Management Requirements***

- 1. Administrative and Organizational Requirements:** - The requirements that fall under the functions of the administrative process of planning, organizing, leadership and control as the electronic management, in order to achieve its objectives, needs to have administrative leadership that deals efficiently and effectively with technology Information and communication in addition to having the ability to innovate and be creative (Evans Yen, 2006).
- 2. Human Requirements:** - The human element is one of the most important resources that can be invested to achieve success in any project and in any institution, and has great importance in the application of e-management where the origin of e-management (Montenegro Flores 2015) requires the need for a qualified workforce, possessed huge knowledge surrounds the principles of technical progress, and has the expertise to become a qualified human resource for the use of information technologies, those human resources include: managers, agents, assistants, programmers, data officer, operator or editor.
- 3. Technical Requirements:** - Represented in providing the infrastructure of electronic management. This includes the development and improvement of the communication network so that it is integrated and ready to use and absorb the huge amount of communication at the same time, and to achieve the goal of using the Internet includes hardware infrastructure requirements (computers, accessories, communication networks) and software infrastructure requirements such as software and subsequent databases, website and common requirements (information security and maintenance).
- 4. Security Requirements:** - The issue of information security is one of the most important dilemmas of working electronically, as the security of the stored information and documents which are processed and transferred electronically. This requires the availability of electronic security and electronic confidentiality at a high level to protect national and personal information and to safeguard the electronic archive from any tampering and focus on the security of the state or individuals and this is done either by

placing security in the software protocol of the firewall network or using an electronic signature or a password (Chadwick May (2003).

- 5. The Political Requirements:** - Are the presence of political will to support the strategy of electronic transformation, and to support the electronic management projects, by providing material and moral assistance to overcome obstacles and the development of electronic transformation programs and electronic management (Dal Bó Rossi 2013). The UAE's Public Electronic Management Initiative at the Arab level is one of the models that has found political recruitment. The Dubai Initiative was launched in 1999 under an official declaration issued by Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of Dubai. The initiative quickly became a reality through a program of work based on points including:
- Adopting a unified channel of customer service, in cooperation with management of electronic services, in order to enhance efficiency and effectiveness levels.
  - Simplifying the processes of accessing government services based on the creation of technologies.
  - Creating new government services and connecting work environments in government departments, to achieve integration that paves the way for the principle of a "Government Without Papers and Without A Queue".
  - Modernization of government procedures and the development of advanced standards.
  - Community awareness about the feasibility of electronic transformation and ensuring minimum level of knowledge (Sethi Sethi, 2008).

### ***Entrepreneurial Performance Concept***

To illustrate the concept of the entrepreneurial performance of the organization, it is necessary to address both the concept of performance and entrepreneurship as follows:

1. Performance: As a language, it is corresponding to the Latin word Performer, which means giving the whole form to a thing, which derives from the English word Performance, which means the completion of the work and how the organization is achieved its objectives (Boyne, 2002).
2. Entrepreneurship: Is a method of thinking, analysis and work that focuses on identifying and exploiting business opportunities from a general and comprehensive point of view driven by the leaders of individuals or small groups (lynch, 2006:742). It represents an act of creativity that includes giving the resources currently available the ability to find new values.
3. Entrepreneurial Performance: It is difficult to put a specific definition for the entrepreneurial performance concept despite the multiplicity of literature that dealt with this concept and this is due to the difference of philosophies, entries and interest in this

field, but there is an implicit agreement to express the entrepreneurial performance as the one that includes in achieving goals of the organization and its objectives to meet its ambition to gain differentiation in its field of work to attract the largest market share. Barnet , (Richard Barnet, 2004:257), has pointed out that it is a series of behaviors to ensure the creation of a new entrepreneurship, but at the organization level, these actions and behaviors usually reflect the pioneering direction of these organizations about the new project to be established and how to contribute to its success. It represents how to invest opportunities in dangerous situations and that is what the entrepreneur, she/he does not make a rational decision but depends on intuition and correct improvisation and this is what distinguishes the entrepreneurial performance from other performances. Because entrepreneurial explorer, i.e. the researcher, continuously looks for new opportunities (swedberg, 2007:10). Stubbard, (Stubbard, 2009:243), has noted that entrepreneurial performance is a performance that defines the organization in a meaningful and continuous manner and in the field of its operations with excellence and exploitation of the entrepreneurial opportunities wave towards creativity, which is the standard in organizations that use the strategy of entrepreneurship and seek to develop and improve their products and services in response to competitive environmental changes. The organization aspires to reach entrepreneurship in its field.

### ***Entrepreneurial Performance keystones***

**1. Proactiveness:** The initiative to already receded others and then waiting for the reaction of other competitors which can enables one's to expect how will be the reaction as indicated by (Yang, Lin Lin, 2010), so that one will be preceding her/his competitors by one step. Proactive actions are the ability to take a high risk taking more than the environment surrounding the organizations, it contains three basic elements (Carung, 2000:16):

- Deciding to race or not to race the competitors with Innovation.
- The trade-off between real attempts at growth and creativity and development.
- Trying to cooperate with competitors in order to contain them.

The proactiveness is to be involved in the problems of the future and the changes and needs and the extent to which new products, technology and management techniques are introduced. (kankanhalli Wei, 2005), have referred to the proactiveness as the organization's efforts to seize new opportunities, proactive organizations are monitoring trends and trying to figure out the future requirements for existing customers or to realize the emerging problem that could lead to new enterprise opportunities.

2. **Creativity (innovation and modernization):** The concept of innovation and modernization is coupled with creativity and invention where creativity is the search for innovative and exceptional solutions to different problems, which eventually lead to the introduction of new technology processes in addition to the introduction of new products and services.
3. **Risk Taking:** Means the organization's desire to adopt high-risk taking projects with high return expectations (Osuagwu, 2002) and it also means that the entrepreneur takes the risk taking of introducing new products in the market considering the risk takings that are exist in the market which are represented by the uncertainty and ambiguity. Risk taking acceptance is linked to the extent to which summit managers tend to make risk taking actions and look at investment decisions and strategic actions to address uncertainties (Richard et al 2009,1083).

Risk taking is usually associated with the speed of strategic decision-making that improves the performance of organizations, so if these organizations are not inclined to take risk, they will not be able to offer new innovations or be slow in their response when compared to other organizations according to the changing market conditions and therefore its performance will be weak. The tendency to accept risk taking is linked to the future, to study all the circumstances and variables surrounding the organization, and to analyze information related to the tendency to take risk takings in order to anticipate and prepare for this risk taking, and this is what we find for the leading people who work in business organizations for the entrepreneurial Activities (Walter & Ritter , 2006).

### **Previous Studies**

Chen and Chang (Chen & Chang, 2013) present a framework for sustainable (green) development performance. Their study examines the effects of the survivable dynamic capabilities and sustainable transformational leadership on sustainable development performance. They also explore the role of the sustainable creativity in this transformation ability. Their study concludes that there are positive relationships between sustainable creativity and sustainable development performance. Besides, this study indicates that the positive relationship between sustainable development performance and their two antecedents—sustainable dynamic capabilities and sustainable transformational leadership is partially mediated by sustainable creativity.

In their study, Evan & Yen (Evan & Yen, 2006) have explored applying E-Governance in serving both the government and people of the state. They showed that modern electronic technologies and communication systems allow the governments to serve the citizens in an efficient, timely, effective, and cost-efficient way. They indicate that application of E-

governance may face some refusal in its first stages, but by the time citizens will find out how these new techniques make both the citizens and the government relate to each other.

Montenegro and Flores (Montenegro & Flores, 2015) have developed combined Information and Communication Technologies (ICT) model. They have studied the effect of the modernization policy on the administrative processes and how can support the process of continuous improvement of public higher education. They mentioned that access to Internet and eGovernment services has grown due to the democratization of the governmental ICT platform to ensure access to the most important public services, including those offered by Higher Education Institutions (HEIs), but they noticed that the applicable organizational and legal framework in the public sector has very little compliance with governance and management considerations. So, their model is built to provide the support to the ongoing improvement of the government sectors.

Monsen and Boss (Monsen & Wayne Boss, 2009) have demonstrated that the strategic entrepreneurship needs customized design philosophy because it affects both the staff and the management. Their study surveyed 110 departments with their staff concerning the three keystones of the entrepreneurial orientation which are risk taking, proactiveness, and innovativeness. Moreover, they measure how the staff and managers within organizations react to strategic entrepreneurship and how to decrease the job stress among employees and increase their productivity.

Walter et al (Walter, Auer & Ritter, 2006) have investigated the abilities of using the network capability to develop and make usefulness of the inter-organizational relationships and the entrepreneurial orientation on the organizations' performance. They showed that the inter-organizational relationships and the entrepreneurship enhance the innovation, constructive risk taking, and proactiveness in dealing with competitors, and hence, help in increasing the organization's performance. Their study has been conducted on 149 university spin-offs it indicates that the performance spin-off's is positively impacted by the entrepreneurial orientation when these universities use and utilize inter-organizational relationships.

### **Research Methodology**

The importance of the research is highlighted via its researched variable, which represent administrative topics that constitute a general orientation of organizations to use them in line with the rapid changes in the business environment and their great role in achieving its goals, especially after the great openness witnessed by our systems and the challenges that imposed reality of how to address those essential needs and how quickly to deal with organizations. Therefore, the research seeks to establish the awareness and the Perception of the management of the target (researched) organization of the importance of its variables, add

new knowledge that contributes to the development of administrative work in the organization, and reveal the role of electronic management in Zain Communications company and know the administrative effects of the development of the information system in increasing the effectiveness of the performance of human resources, and the need to work with these variables to achieve a high level of performance in the level of services provided to achieve competitive advantage and sustainability in its field of work.

### Research Hypothesis

1. There is a statistically significance correlation between the variables of electronic management and the variables of the organization's entrepreneurial performance.
2. There is a relationship of statistical significance between the variables of electronic management and the variables of the organization's entrepreneurial performance.

Zain Telecom has been selected as a community for targeted research and then the research focused on selecting a sample of the 50 working managers located between the directors of the departments, the administrative people, the units and their assistants who are acting on their behalf because they occupy administrative positions that enable them to give the appropriate answer to the distribution of the questionnaire on them through field visits and after examining the number of (50) resolutions being analyzed after (5) being excluded due to the failure to meet the conditions of the correct answer.

The questionnaire form was prepared, unloaded and analyzed through statistical tools and methods using the Statistical Program SPSS (22) and the preparation of a preliminary questionnaire for use in the collection of data and information and the presentation of the questionnaire to a group of statistician arbitrators who are specialized in accounting and auditing who in turn provided advice and guidance about what to modify and delete as needed. A preliminary field test study of the questionnaire was conducted and adjusted according to the sincerity and stability of the paragraphs. The test of honesty and stability appeared for the questionnaire form of the survey and has reached the sincerity of the resolution and the coefficient of stability (0.885) which indicates the excellence of the resolution with honesty and stability and makes us confident to its validity to analyze the answer to all questions in the research and to test the hypotheses.

The sample of the research included a number of specialists in the fields of engineering and computer science as well as in the fields of administration and law, who are related to the subject of the study, of the distributed (55) questionnaires, (50) form were returned , and it was found that the vocabulary of the sample space in the study community was according to the following distribution, table (1):

**Table 1:** Distribution of sample data by specialization

No.	Field	Iteration	Percentage
1	Computer science and engineering	25	12.5%
2	Business administration	20	10%
3	Law	5	2.5%

**Table 2:** Distribution of the studied sample by the academic degree of the affiliates.

No.	Academic degree	Iteration	Percentage
1	Diploma	5	10%
2	Bachelor's	22	44%
3	High Diploma	12	24%
4	Master	11	22%

**Table 3:** Distribution of sample data by affiliates' years of service.

No.	Number of years	Iteration	Percentage
1	Less than 5 years	5	10%
2	5-10	22	44%
3	10-15	12	24%
4	20 and more	11	22%

### Viewing and analyzing Results of the Field Study

The Five-Point Likert Scale was adopted in the analysis of the questionnaire surveys, in which the answers are given a digital coding through which the weighted mathematical medium (weighted) and the standard deviation of each paragraph (question) are found for the purpose of knowing the direction of the answers, the extent of their dispersion and the mechanism of coding and calculating the results for this scale can be explained by table (4):

**Table 4:** Sample questionnaire data scale.

Answer (sample opinion)	Code	Weighted medium test	Result
I completely disagree	1	1-1.8	Complete disagreement
I disagree	2	1.81-2.6	Disagreement
I am neutral	3	2.61-3.4	Neutrality
I agree	4	3.41-4.2	Agreement
I completely agree	5	4.21-5	Complete Agreement

### Natural Distribution Test

The Kolmogorov-Smirnov test was used to test the hypothesis that the data follow the normal distribution at a significant level (0.05). Table (5) shows the results of the test, as the value (p-value) of all the research axes was the most significant level, and this leads us to accept the hypothesis, that is, the answers follow the normal distribution.

**Table 5:** Tests of the normal distribution of research keystones.

Keystone	K-S statistics	P-value
Administrative and organizational requirements	0.064	0.1132
Human requirements	0.058	0.9855
Technical requirements	0.052	0.0861
Proactiveness	0.182	0.115
Innovation	0.083	0.091
Risk taking	0.072	0.125

### Weighted Mean Test

(t-test) is used to test the validity of the weighted mean that is calculated from the answers at a certain level of significance, if the calculated test value is greater than the tabular value, or if the test strength (Sig) is less than the level of significance then this indicates the validity of the result that was calculated.

### Analysis of Study Results

#### *Keystone 1 (First Variable: Administrative & Organizational Requirements)*

Table (6) below represents phrases of the variable (administrative and organizational requirements), which consists of (5) phrases.

**Table 6:** Descriptive analysis of the paragraphs of administrative and organizational requirements variable.

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	20	40	10	20	5	10	-	-	15	30	3.12	0.35	7.563	.000
2	20	40	20	40	-	-	5	10	5	10	3.6	0.225	9.441	.000
3	2	4	21	42	21	42	1	2	5	10	3.3	0.809	4.116	.002
4	10	20	25	50	5	10	10	20	-	-	3.6	0.212	9.828	.000
5	15	30	30	60	-	-	5	10	-	-	3.4	0.211	9.53	.000
Result of the part											3.404	0.361	7.234	.000

It is clear that the total number of answers to the complete agreement was (29) answers at a mean of (11.6%), and that a total of (130) answers at a mean of (52%) indicates the

agreement, while the total number of neutral answers was (35) answers at a mean of (1.4%). While the number of disagreement answers reached (25) with a mean of (1%), and the number of total disagreements reached (31) with a mean of (12.4%). As for the calculated test (t) values for all paragraphs of the first variable were greater than the tabular value of (2.3139). The level of significance was less than the level of significance of (0.05) and this means that the calculated values for the weighted mean for all paragraphs were significant, as was the weighted mean for the whole axis (3.404) and with a standard deviation of (0.361), so the Sig value for the test (t) was less than the level of significance (0.05), which indicates that the arithmetic mean significantly exceeded the hypothetical mean test, that is, the result of the axis is agreement with the variable of administrative and organizational requirements.

**Keystone 1 (Second Variable: Human Resources)**

Through table (7) below, which represents paragraphs of the variable (human requirements), and this keystone also consists of (5) paragraphs.

**Table 7: Descriptive analysis of the second keystone paragraphs.**

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	20	40	10	20	5	10	-	-	15	30	3.4	0.702	6.563	.000
2	20	40	20	40	-	-	5	10	5	10	3.9	0.313	5.321	.000
3	2	4	21	42	21	42	1	2	5	10	3.28	0.970	5.012	.000
4	10	20	25	50	5	10	10	20	-	-	3.7	0.150	10.867	.000
5	15	30	30	60	-	-	5	10	-	-	4.1	0.839	4.157	.000
Result of the keystone											3.676	0.595	5.012	.000

It is clear from table (7) that the total phrases (terms) of the complete agreement were (75) answers with a mean of (29.2%), and that a total of (144) answers with a mean of (10.4%) indicate the agreement, while the total of neutral answers (26) were answered at a mean of (10.4%), the number of non-agreement answers reached (7) with an average rate of (2.8%), there was no answer indicating that there was no complete agreement with the terms. With regard to the values of the test (t) statistics calculated for all paragraphs of the first keystone, they were greater than the tabular value of (2.3139), and the level of significance was less than the level of significance (0.05) and this means the calculated values for the weighted mean for all paragraphs were significant. Whereas, the significance level of the test (t) was less than the level of significance, and the weighted mean for the variable was (3.676) and with a standard deviation of (0.595), and this indicates that the respondents agree on the paragraphs of the variable human requirements.

**Keystone 1 (Third Variable: Technical Requirements)**

Table (8) below represents the keystone (technical requirements) paragraphs (terms) and they consist of (5) paragraphs.

**Table 8:** Descriptive analysis of the technical requirements keystone.

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	7	14	29	58	7	14	7	14	-	-	3.72	0.882	4.181	.000
2	19	38	31	62	-	-	-	-	-	-	4.38	0.49	4.251	.000
3	7	14	36	72	7	14	-	-	-	-	4	0.535	6.654	.000
4	21	42	17	34	12	24	-	-	-	-	4.18	0.8	4.203	.000
5	19	38	31	62	-	-	-	-	-	-	4.38	0.49	7.551	.000
Result of the keystone											4.132	0.639	4.312	.000

It is clear from table (8) that the total terms of the complete agreement were (73) answers at a mean of (29.2%), and that a total of (144) answers with a mean of (57.6%) that indicate the agreement, while the total of neutral answers (26) were answered with a mean of (10.4%). The number of non-agreement answers reached was (7) with a mean of (2.8%), there was no answer indicating no complete agreement with the terms. With regard to the values of the calculated test (t) statistics for all paragraphs of the first variable, it was greater than the tabular value of (2.3139), and the level of significance was less than the level of significance (0.05) and this points to the fact that the calculated values for the weighted mean for all paragraphs were significant. Through the value of the weighted mean of the variable, which reached (4.132), it turns out that the respondents agreed on the necessity of the availability of technical requirements. The standard deviation of the weighted mean was (0.639), knowing that the level of significance of the test (t) was less than the level of significance and this indicates that there are no significant differences.

**Keystone 2 (First Variable: Proactiveness)**

Table (9) below represents the paragraphs of the approved variable (proactiveness) in the entrepreneurial performance keystone and consists of (5) paragraphs.

**Table 9:** Descriptive analysis of the paragraphs of the first dependent variable.

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	20	40	14	28	10	20	4	8	2	4	3.92	0.814	3.272	.002
2	16	32	14	28	6	12	8	16	6	12	3.52	0.403	5.338	.000
3	16	32	14	28	8	16	2	4	2	4	4.16	0.695	4.052	.000
4	14	18	18	36	10	20	4	8	4	8	3.68	0.703	3.668	.000
5	10	20	22	44	10	20	6	12	2	4	3.64	0.642	4.537	.000
Result of the keystone											3.78	0.651	4.173	.000

It shows that the total terms of the full agreement were (86) answers with a mean of (34.4%), and a total (80) responses with a mean (average) of (32%) refer to the agreement, while the total of neutral answers was (44) answers with a mean of (17.6%). The number of answers of non-agreement (24) answers with a mean of (9.6%), and the number of answers to total non-agreement (16) at a mean of (6.4%). The calculated values of the test (t) for all paragraphs of the first keystone were greater than the tabular value of 2.314, and the level of significance was lower than the significance level (0.05) which means that the calculated values of the weighted mean of all the paragraphs were significant, and through the level of significance of (0.05) of the weighted arithmetic mean of the keystone (variable) which was less than the level of significance shows that there are no significant differences to the average variable of proactiveness, i.e. the weighted arithmetic mean of 3.78 indicates that the respondents agree with the proactiveness variable paragraphs. The standard deviation of the entire keystone was (0.561).

**Keystone 2 (Second Variable: Modernization and Innovation (Renewal))**

Table (10) below represents the paragraphs of the second dependent variable in the entrepreneurial performance keystone (modernization and innovation) and it consists of (5) paragraphs.

**Table 10:** descriptive analysis of the paragraphs of the second dependent variable.

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	25	50	15	30	7	14	2	4	1	2	4.22	0.575	5.563	.000
2	8	16	13	26	15	30	9	18	25	10	4	0.443	7.441	.000
3	27	54	12	24	7	14	2	4	2	4	4.2	0.688	4.116	.000
4	21	42	19	38	6	12	3	6	1	2	4.12	0.724	3.828	.000
5	20	40	17	34	8	16	4	8	1	2	4.02	0.481	8.53	.000
Result of the keystone											4.11	0.582	6.325	.000

The table (10) shows that total terms of the complete agreement were (114) answers with a mean of (45.6%), and that a total of (80) answers with a mean of (32%) that indicates the agreement, while the total of neutral responses was (33) answers at a mean of (13.2%), While the number of non-agreement answers reached (16) with an average rate of (6.4%). The number of complete disagreement answers reached (7) with an average (mean) of (2.8%). Regarding the values of the test(t) statistics calculated for all paragraphs of the first keystone, they were greater than the tabular value of (2.3139), and the level of significance was less than the level of significance (0.05) and this means that the calculated values for the weighted mean for all paragraphs were significant. The general result of the tests of the modernization and innovation indicate the agreement of the respondents with it, because the weighted mean for the whole keystone reached (4.11) with a standard deviation of (0.582), and the value of the level of significance for the test (t) was less than the level of significance.

### Keystone 2 (Third Variable: Risk Taking)

Table (11) below represents the paragraphs of the second dependent variable in the entrepreneurial performance keystone (risk taking) and consists of (5) paragraphs.

**Table 11:** descriptive analysis of the paragraphs of the third dependent variable.

item	Agree		Disagree		neutral		Disagree		Disagree		Mean	Standard deviation	t	Sig.
	A	%	A	%	A	%	A	%	A	%				
1	1	3	1	3	1	2	3	6	2	4	3.92	0.617	7.309	0.005
2	1	2	1	2	1	2	9	1	5	1	3.32	0.301	10.558	.000
3	8	1	1	2	1	2	9	1	7	1	3.12	0.288	8.332	0.001
4	9	1	1	3	1	2	5	1	5	1	3.4	0.992	3.451	0.041
5	2	4	6	1	1	3	1	3	1	2	2.48	0.254	10.55	.000
Result of the keystone											3.25	0.49	7.726	0.01

We note in this table that the total terms of the complete agreement were (50) answers with a mean of (20%), and that a total of (62) answers with a mean of (24.8%) indicate the agreement, while the total of the neutral responses (67) were answered with a mean of (28.6%). The number of non-agreement answers reached (42), with a mean of (16.8%), and the number of complete disagreements was (29) with a mean of (11.6%). Concerning the values of the test (t) statistics that was calculated for all paragraphs of the first keystone, they were greater than the tabular value of (2.314), and the level of significance was less than the level of significance of (0.05) and this means the calculated values for the weighted mean for all paragraphs were significant. Also, the weighted mean for the whole keystone reached (3.25) with a standard deviation (0.49), and this indicates the neutrality of the respondents' answers towards risk taking, knowing that the value of the significance level for the measured mean test was less than the level of significance.

### Correlation Analysis

Table (12) data below represent the Pearson Correlation Coefficients between the study keystones with a significant level (0.05). The results show the following:

**Table 12:** Correlation coefficients between study variables.

		Proactiveness	Modernization & Innovation	Risk taking
Administrative and organizational requirements	correlation coefficient	0.314	0.461	-0.556
	Significance level	0.005	.000*	.000*
Human requirements	correlation coefficient	0.511	0.486	-0.602
	Significance level	.000	.000*	.000*
Technical requirements	correlation coefficient	-0.585	-0.622	-0.674
	Significance level	.000*	.000*	.000**

Note that the symbol (\*\*) indicates that these correlation coefficients are acceptable even at the level of significance (0.01).

1. The value of the correlation coefficient between the first explanatory variable (administrative and organizational requirements) and first dependent variable (proactiveness) and the second dependent variable (innovation and modernization), respectively, reached (0.314) and (0.461) with a level of significance of (0.05) less than the level of significance. This indicates a weak positive correlation between the first explanatory variable and the first and second dependent variables. While the value of the correlation coefficient (- 0.556) between the first explanatory variable and the third dependent variable (risk taking) and at a level of significance of (0.05) less than the level of significance, this indicates an intermediate inverse correlation between them.
2. There is a positive intermediate correlation between the second explanatory variable (human requirements) and the first dependent variable (proactiveness). The correlation coefficient value of (0.511) reached a level of significance of (0.05) less than the level of significance, and with the same previous behavior, the nature of the relationship between the human requirements variable and the second dependent variable (modernization & innovation (renewal)) because the correlation coefficient value reached (0.486) with a level of significance of (0.05) less than the level of significance, while the value of correlation coefficient (- 0.602) between the second explanatory variable and the third dependent variable (risk taking) and with a level of significance of (0.05) less than the level of significance, and this indicates an intermediate inverse relationship between them.
3. The third explanatory variable (technical requirements) correlates with the three dependent variables with an average inverse relationship. The values of correlation coefficients were (- 0.585), (- 0.622) and (- 0.674) and at a level of significance of (0.05) that is less than the level of significance.

### **Effect (Impact) Analysis**

Aims to determine the extent to which the explanatory variables affect the dependent variables through testing the hypothesis of the study which includes (the effect of electronic management on the leading performance). From table (13) of Impact analysis, the results show:

1. The value of the (F) Statistic was 39.883 with level of significance (0.000<sup>b</sup>), which indicates the acceptance of the developed hypothesis, i.e. there is a significant impact (effect) of the explanatory variables (combined) on the dependent variables, and this indicates the acceptance of the test hypothesis.

2. The value of the coefficient of determination ( $R^2=0.654$ ), which indicates that the three explanatory variables within (e-management) have interpreted (65.4%) of the changes in the dependent variable (entrepreneurial performance), the remaining percentage is due to other variables that have not been taken into account.

**Table 13:** Impact analysis.

	Sum of squares	Degree of freedom	Weighted sum of squares	F statistics	Sig.
Regression	3.749	1	3.749	39.883	.000 <sup>b</sup>
Remainders	4.512	48	0.094		
Total		49			
Determinant coefficient	0.654				

***First: Testing hypotheses that Measure the Effect of E-management Variables on the Proactive Variable***

Table (14) below shows the determination of the source of the effect of the three explanatory variables on the proactive variable by conducting a test (t) with the following hypotheses:

- **Hypothesis I:** Administrative and regulation requirements affect proactiveness.
- **Hypothesis II:** Human requirements affect proactiveness.
- **Hypothesis III:** Technical requirements affect proactiveness.

Variance analysis table to measure the impact of e-management variables on proactiveness and it has shown the following:

The value of the test (t) was (11.531) and the significance level (0.011) which is below the significance level, and this indicates the acceptance of the hypothesis, which means that the variable (administrative and regulatory requirements) affects the adopted (proactiveness) variable. The value of the test (t) of the human requirements variable was (1.325). The level of significance of (0.05) (0.73) is greater than the significance level, which indicates the rejection of the hypothesis, that means that the variable (human requirements) does not affect the dependent (proactiveness) variable. The results indicate the acceptance of the third hypothesis, i.e., that the explanatory variable (technical requirements) affects the dependent (proactiveness) variable because the value of the test (t) was 15.683 and at a level of significance of (0.05) less than the significance level.

**Table 14:** Testing the impact of e-management on the proactiveness variable.

	Coefficients	Deviation	t	Sig.
Constant	-0.531	.242	-9.478	.011
Administrative and organizational requirements	0.122	.083	11.531	.000
Human requirements	.332	.934	1.325	.073
Technical requirements	-0.925	0.026	15.683	.000 <sup>a</sup>

**Second:** Testing Hypotheses that are Related to Measuring the Effect of Electronic Management Variables on the Variables of Modernization and Innovation

Table (15) below determines the source of the effect of the three explanatory variables on the variable of modernization and innovation by conducting a test (t) of the following

**hypotheses:**

**Hypothesis I:** Administrative and organizational requirements affecting modernization and innovation.

**Hypothesis II:** Human requirements affect modernization and innovation.

**Hypothesis III:** Technical requirements affect modernization and innovation.

**Table 15:** Testing the impact of electronic management on the modernization and innovation (renewal) variable.

	Coefficients	Deviation	t	Sig.
Constant	0.245	0.823	2.135	.091
Administrative and organizational requirements	0.821	0.365	5.361	.000
Human requirements	0.362	0.32	0.564	0.881
Technical requirements	-.0763	0.145	8.364	.000

The variance analysis table of the impact of e-management variables on modernization and innovation shows the following:

The value of the test (t) reached (5.361) with a level of significance of (0.05) below the level of significance, and this indicates the acceptance of the first hypothesis, which means that the variable (administrative and regulatory requirements) affects the dependent variable (modernization and innovation). The value of the test (t) of the second hypothesis has reached (0.564) and the level of significance of (0.05) (0.881) is greater than the significance level, and this indicates the rejection of the second hypothesis, i.e. the variable (human requirements) does not affect the dependent variable (innovation and modernization). The results indicate that the third hypothesis is accepted, i.e. that a variable (technical requirements) affects the dependent variable (modernization and innovation) because the

value of the test (t) has reached (8.364) and at a level of significance of (0.05) less than the level of significance.

***Third: Testing Hypotheses Concerning the Measurement of the Effect of E-management Variables on a Risk-Taking Variable***

Table (16) below identifying the source of the effect of the three explanatory variables on a risk-taking variable by conducting a test (t) of the following hypotheses:

**Hypothesis I:** requirements Management and regulation affect risk taking.

**Hypothesis III:** human requirements affect risk taking.

**Hypothesis III:** technical requirements affect risk taking.

**Table 16:** Testing the impact of e-management on a risk taking (risk acceptaingt) variable.

	Coefficients	Deviation	t	Sig.
Constant	-0.987	0.658	2.01	0.69
Administrative and organizational requirements	0.365	0.956	1.15	0.58
Human requirements	0.442	0.772	1.32	0.55
Technical requirements	0.331	1.364	-0.98	0.96

This table shows that The value of the test (t) was (2.012) with a level of significance of (0.05) (0.698) which is greater than the significance level, which indicates the rejection of the first hypothesis, i.e. the variable (administrative and regulatory requirements) does not affect the dependent variable (risk taking). The value of the test (t) of the human requirements variable (1.329) reached the level of significance of (0.05) (0.583) which is greater than the significance level, which indicates the rejection of the second hypothesis, i.e. the variable (human requirements) does not affect the dependent variable (risk taking).

**Recommendations**

The goal of the research is to identify the reality of the application of electronic management in the target organization, and to know the reflection of the application on its progress and the increase of entrepreneurial performance in it and to jump from traditional work to entrepreneurial work. The study recommends the need to issue an e-mail for the company and for its employees, this e-mail will serve as a means to deal with third parties, to overcome the obstacles of work, shorten the time as quickly as possible, and to work to make the company apply the system of open management and work 24 hours without linking the work hours to nighttime or daytime. Moreover, the participation of administrative leaders should also be increased and their expertise in the implementation of e-management consultations should be increased. The research recommends sorting out an integrated team of skills to



manage the company's website under the supervision of senior management and the participation of other departments to entrepreneurially complete the work. Furthermore, the research recommends that the company's website should be more than just electronic interface. It must represent the company's identity and mission, its strategies, activities and provided services that reflect the reality of the company's entrepreneurial business.



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