

# **Effect of the Components of Information Technology adoption on Employees Performance of Interior Ministry of Kuwait State**

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## **ABSTRACT**

This study aimed to examine the adoption of the information technology elements on Employees Performance of Interior Ministry of Kuwait State, the elements of information technology variables represented by (hardware, software, databases, networks, and the human element), the study population consisted of managers in the Interior Ministry of Kuwait State, and has been used comprehensive method of the population, and the researcher used the questionnaire to collect data of the study. And researcher used statistical tests in order to analyze questionnaire, answer the study questions and testing of hypotheses.

And the researcher found that there a statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) for the adoption of information technology elements represented by (hardware, software, data bases, and the human element) on Employees Performance of Interior Ministry of Kuwait State.

The researcher finds that the investment in information technology is an important tool in enhancing performance, since the interest and investment in technology elements helps to connect the various administrative functions with each other and to eliminate duplication and reduce errors and effort, which contributes to increased productivity and lead to administrative decisions better, and more efficient processes which improves the performance of employees. Based on results the researcher recommended to work continuously to updated IT infrastructure development of information permanently and continuously commensurate with the nature off the work to increase the capacity to increase the service request to enable the Ministry to shift to e-government.

**Keywords:** Information Technology, Employees, Performance, Interior Ministry, Kuwait.

## **1. Introduction:**

Information technology is one of the most important developments over the past decades, it has become a necessity for development in various kinds of life, as an essential tool for economic, social and cognitive development and change, And has become one of the most important tools in developing services, production process, cost reduction and quality improvement, information technology is used in the organizations to improve their performance, streamline the decision making process, to achieve the employees satisfaction (Al-Hawary & Ismael, 2010), and the development of committed staff and Organization loyalty, and achieve competitive advantage. Organizations seeking to introduce modern information technology, and work to develop them, and train employees to use them (Algoere, 2004; Al-Hawary, 2015).

Information technology Managed for decades influencing business economics and the ways of life, culture, and business productivity. Information technology plays an important role in communities at both individuals, groups or organizational levels, because of their clear impact on performance in the public and private sectors, in terms of improving services to the public, increased speed in productivity and improve efficiency and effectiveness.

Information and technology facilitated communication, the user can access technology, transfer and circulation of information through modern technical means swiftly and unsurpassed, Information technology has contributed to open up to all that is new and solved a lot of problems, and business processes which require significant staff time and effort, offering of time and money helped reach the science and knowledge at the lowest costs, As well as information technology instrumental increasing performance, improve communications, planning, and decisions making, increased efficiency, productivity and delivery services provided by organizations (Melville et al., 2004).

Lewis & Byrd (2003) defined information technology as joint technological resources include hardware, operating systems, networks, databases, business applications, and human efficiency, which is investigating the Foundation which allows information to flow through the organization, in addition to achieving the ability to design, implement, support current, and future information systems, and also support innovation within the organization (Al-Hawary, & Aldaihani, 2016). Byrd et al. (2008) recalled that the elements of information technology are the common technological resources include physical components, computers, communication technology, data and computer applications in addition to the skills, experience and knowledge of the human element.

The value of information technology to business and technology investment decision are determined by to the extent to which technology can achieve high-value management decisions, in addition to achieving profitable, and efficient business processes returns (Laudon & Laudon, 2010).

Job performance is a result of skills, either natural or acquired, that employee-owned (Al-Hawary & Haddad, 2016a; Al-Hawary et al., 2013; Al-Hawary, 2011), and so employee motivation towards using these skills is to improve work performance (Al-Hawary & Metabis, 2013). And job performance was defined ' as a result of three factors together are: skill, effort, and the nature of working conditions, including the skills, knowledge, abilities and

competencies that an individual brings to the Organization (Al-Hawary & Alajmi, 2017; Al-Hawary & Shdefat, 2016; Al-Hawary & Nusair, 2017; Al-Hawary et al., 2011; Al-Hawary & Abu-Laimon, 2013), effort is the degree of employee rush to complete his work, and the nature of working conditions and to facilitate and improve individual productivity (Levey, 2001).

An argument has emerged among researchers regarding the relationship between information technology and performance, some pointed that the use and adoption of information technology does not guarantee productivity and improve performance (Brynjolfsson, 2003; Brynjolfsson & Hitt, 2000). Some of them stressed that information technology had a clear impact on improving performance at the organization and individual level (Stone et al., 2006), Johnston et al. (2007) pointed out that information technology is to reduce costs and administrative expenses through information systems on delivery time as sufficient information further improve individual performance (Stone et al., 2006;).

As the importance of the study comes from the importance of the public sector covered by the study; Kuwaiti Interior Ministry's, because of its active role in Kuwaiti security and thus contribute to promoting investment that requires a secure environment, and also that there was a need for such a study in the Government sector required by the nature of development and modernization process in Kuwait and especially Government directed towards e-Government program. It's also a tool to identify the extent of awareness of government agencies in the use of information technology for this sector as a vital role in advancing development in the State of Kuwait. So the study is to identify the impact of information technology components adoption in employee performance of the Interior Ministry in Kuwait.

## **2. The theoretical framework and previous studies**

### **2.1 Information Technology:**

Communities live these days in the age of information revolution, where information and communication technology (ICT) plays an important role in supporting various organizations activity areas, information technology has become a close link in the evolution of societies now a days, and are considered as essential engine for the evolution of life, and a supporter of various activities of daily life, where it is the most important way to change the developing societies to more developed sophisticated societies, the individual is indispensable in the 21st century for the use of information technology for its role in knowledge and creativity field, And are considered as essential engine for the evolution of life, and a supporter of various activities of daily life, where it is the most important way to change the developing societies to more developed sophisticated societies, the individual is indispensable in the 21st century for the use of information technology for its role in knowledge and creativity field.

### **2.2 The concept of information technology:**

The word technology in the Arab language Lexicon known as: a tool, production method or technical knowledge or for the production of goods and services including the production of production tools, power generation and extraction of raw materials and transportation (Basic Arabic Dictionary, 1988: 201).

There are many definitions for information technology in the theoretical literature. Laudon and Laudon (2007) defined information technology as the technical infrastructure which includes computers, operating systems and networking technology, databases, and others. Byrd et al. (2008) added so human element thus information technology concept includes both human and technical elements.

Sanders (2007: 179) defined information technology as the 'ability to obtain and process information exchange with a view to taking effective decisions'. Yassin (2009) defined it as the 'tools and techniques used by information systems to implement the computer activities of different types and their applications include both computer Equipment and computer hardware, software, storage, and communications technology (Al-Hawary & Ismael, 2010).

While Loudon & Loudon (2007) defined it as all computer-based information systems used by organizations and techniques. Also defined by Kochikar & Suesh (2005) 'as a mechanism to classify, store and display information, as well as to ensure rapid and effective flow of information throughout the organization, Al-Kubaisi (2005) believes that all kinds of technical and scientific knowledge and applied research that can contribute to providing the tools, equipment, machines and devices with high efficiency and better performance to make it easier on the human effort and save time and achieve the organization's objectives.

As defined by Idris (2005) as 'those tools that are used to build information systems that the cooperate management on using information to support their decisions making, and organization operational processes. It includes technical programs, software, databases, and networking between many computers and other related items. Oywole (2008) defined it as 'a form of technology used to create, store, Exchange, and use information in various forms, business data, voice conversations, animation, multimedia presentations, and other formats. Laudon and Laudon (2007) defined information technology as the technical infrastructure which includes computers, operating systems and networking technology, databases, and others.

### **2.3 Components of the information and communication technology infrastructure:**

Researchers differ in the definition of the information technology infrastructure some of them use the four elements which are hardware, software, databases and network (Krajewski & Ritzman, 2005), while Laudon & Laudon (2003) pointed out to information technology infrastructure, human resources, hardware, software, databases and networks. Dulaimi (2006) finds that ICT infrastructure is made up of three components: computer, communication networks and knowledge (Know-How).

Krajewski & Ritzman (2005) see the physical components as a computer and attached devices, and Laudon & Laudon (2010) noted that it's the physical equipment used in the input, processing, and output in the information system, in this study the researcher finds that information technology is the hardware, software, databases, systems and the human element. Information technology consists of the following parts (Laudon & Laudon, 2003):

**Hardware:** the CPUs of computers that receive the data and processed and then show the form of information.

**Software:** all kinds of software necessary to operate the computer, and the Organization of work units, and includes two types: operating systems, applications, and databases: the default container which contains data and information for an individual or a unit or organization or country.

**Databases:** that the vessel which contains a set of files stored on computer forming starting material (raw data) that is processed, updated and retrieved for access to information and knowledge.

**Networking:** includes two kinds, the first internal networks: connecting employees and departments within a specific building or offices to enable them to share and exchange information and collaborate on projects, and secondly, external network: the network that provides information worldwide.

**Human element:** people working on the system, whether users or responsible for maintenance and system problems, and the Al-Kre (2005) adds that information technology needs to provide human competencies in many areas: such as management information systems, database management, systems analysis and design, programming, operation of computers, technical expertise, skills are the most important specifications that must be available to the information technology staff.

#### **2.4 Employee's Performance:**

The issue of employees performance has a prominent importance in the management process and their themes, it means paying managerial units to work fresh and active, making the administer attending subordinates duties and responsibilities continuously, Most notably: improve employee performance and development, adopting this calendar means to determine bonuses and increments, a tool to detect training needs, a way to judge the appropriateness of selection and recruitment policies, training, and objective basis for drawing these policies (Al-Hawary & Al-Menhaly, 2016), as well as organizations interested in performance because of items that assess and measure the performance of employees and their situation and problems, it is also to assess their effectiveness in implementing the Organizational goals and objectives, This element is essential in raising the Organizational efficiency and productivity and through the organizations programs and how they achieve their objectives (Abu Sheikha, 1990). Faroqui & Nagendra (2014) see that the job performance of the staff plays a critical role in the organizational performance (Al-Hawary & Shdefat,2016). Where an incompetent employee has low job performance, and for this reason the politely person speech and information delivery can be an indicator of his work performance because they have this skill they reflected positively on their results and strengthening the relationship with their direct Manager.

Al-Taamnh (2009) finds that job performance of the main themes of professional work in any functional area, if this performance was distinctive in the working environment governed by Justice and equality, it is logical that this performance takes employees to a prominent place in the employing organization, in a world of rapid change and intense competition, and organization would not be able to enter the competition only if high performance is one of the most important characteristics, this performance is a result of individuals and organizational performance.

Axtell et al. (2000) referred that the possibility that employees used their skills to improve organizational performance through the introduction and use of new ideas to improve products, services and processes. Meanwhile, Unsworth and Parker (2003) assure the importance of creative ideas for staff and its positive role in achieving organizational success. As employees creative behavior depends greatly on interacting with others in the workplace (Anderson et al., 2004; Martocchio and Ferris, 1996). There are three important factors in organizational future life and social change in society:: spiritual work and desire to make a meaningful work and job satisfaction (Karakas, 2009). Confirmation of the above, some studies indicated a positive relationship between job performance and work productivity (Garcia-Zamor, 2003) and performance and reduce working pressure (Marques, 2005).

### **2.5 Concept of employee's performance:**

Idris & Al-Ghalibi (2009) defines performance as the 'outputs or objectives that the system seeks to achieve them, which reflects both goals and means to achieve them ' performance as defined by Robbins & Wiersema (2005) is the better use of the available human and material resources to achieve the organization's objectives, sustainability and maintain competitive advantage. Either Daft (2007) describes performance that individual's ability to achieve the Organization's goals through optimal use of available resources in an efficient and effective manner.

Sultan (2004) defined performance as a net impact of individual efforts that start with abilities and recognize the role or functions, which indicates the degree of achievement and complete the task of individual job. Performance is an integrated system, represents individual performance and is a key element in it, this is due to the fact that the human element is the active ingredient in performance because of its expertise and capacity to accomplish works (Al-Saud, 2008).

Employee performance refers to financial and non-financial outcomes for the employee who directly affects the Organization's performance and success. Many studies have found that working to promote Job preoccupation one of the important ways to improve employee performance, job performance, organizational citizenship behaviors, task performance, and productivity and effective commitment, in addition to improving the psychological climate and customer service (Christian et al., 2011; Rich et al., 2010; Macey and Schneider, 2008).

AL-Dawy (2012) believes that job performance is the most important of functional outcomes, have been defined as the combined value of the activity that the employee participates directly and positively or negatively to accomplish organizational goals. And Templar (2010) considers performance as the reflection of how enterprise use material and human resources, Exploit it more efficiently and effectively to achieve its objectives, thus performance is the product of interaction of two key elements: how to use enterprise resources and means the efficiency and results of it use to mean the effectiveness factor.

### **2.6 Employee's performance components:**

The employee's performance consisted of three major components: Job Performance, Task Performance, citizenship Performance and Counterproductive Performance. This concept refers



generally to the employee controlled behaviors that influencing organizational goals (Rotundo & Sackett, 2002). While contributing to the task directly in the production of goods or the provision of services, organizational citizenship performance contributes indirectly to achieve the objectives of the Organization in terms of its positive impact on the social and psychological environment of the Organization, performance on Counterproductive behavior is Harmful to organizational health (Rotundo & Sackett, 2002).

Despite some researchers efforts to develop a model of performance includes all aspects of the job, as did Campbell (1990), but the majority of applied research to date have addressed the focus on one of the above topics, and are doing the job and organizational citizenship performance and Counterproductive behavior performance (Viswesvaran & Ones, 2000). And that's where the job includes doing what is expected of the employee as part of his career or role, organizational citizenship performance and Counterproductive job behavior does not include work related to tasks or additional roles; but acts of discretion of oneself. recently the growing interest of both researchers and organizations is notable in the additional roles behaviors (LePine & Johnson, 2002). This is reflected in organizational citizenship performance that received great attention by researchers in the past two decades (Podsakoff et al., 2000).

### **2.7 Information technology and Performance:**

Investments in information technology are an important tool of strengthening organizational performance and create economic value for enterprises. According to Melville et al. (2004) there are enough evidences to suggest that investment in information technology is directly related to improve organizational performance. And this process depends on determining the value of information technology for business, as well as the decision to invest in any of technology areas, and at large extent depends on whether this technology will lead to better management decisions, and more efficient operations and higher profitability (Laudon & Laudon, 2010).

In this context, the desire to study information technology related work is to understand and explain how and what the impact of information technology application process within institutions on improve institutional performance (Melville et al., 2004). In the complex and dynamic business environment that we are witnessing today, high-quality infrastructure for information technology can contribute to create institutions with the ability to share information across different functional areas, innovation, business opportunities, and the flexibility to respond rapidly to changes in the business strategy (Bhatt and Grover, 2005).

According to Laudon & Laudon (2007), it has been shown in some studies carried out in this context that there is a clear increase of the returns size from investment in production information technology on productivity (return on investment). The results of this analysis can be divided into four different scenarios, as follows: (a) some institutions invest a great deal and get significant returns. (B) some institutions invest a great deal and get low returns. (C) some enterprises invest little and get significant returns. (D) some enterprises invest little and get low returns.

Laudon & Laudon (2007) see that the results of their study suggests that ICT investment does not guarantee in itself investment to commensurate returns, though there are other

variables involved. It can maximize the return on investment in information technology by investing in complementary assets. If an institution invest in new technology, and failed to adopt a business support model, this institution will be able to improve the return on investment (Laudon & Laudon, 2007) search results suggest investing in information technology institutions that guide its investments in parallel in information technology and complementary assets get better returns from institutions that do not invest in these assets; From these assets: new business models, redesign processes, administrative behavior, and Enterprise reengineering, organizational learning, interaction with suppliers, customer interaction, and user training (Brynjolfsson, 2003; Davern & Kauffman, 2000) However, the expected returns for investment productivity in information technology in the public sector institutions are different from those expected in private enterprises.

Stone et al. (2006) both showed the clear impact of information technology on the performance of entities and individuals within the institutions. While Johnston et al. (2007) assure that rely on technology leads to savings in cost of goods and cost of sales, general and administrative expenses, while increasing sales. And that the ability of information system to provide adequate information in time may increase the perceived improvements in individual performances (Stone et al., 2006), so the ease of technology use play an important role, along with perceived improvements in individual performance, to create satisfaction about the system and leading to increase using it, and ultimately, contribute to the perceived improvements statement on institutional performance (Stone et al., 2006). And Raymond et al. (2005) found that the growth of small and medium-sized industrial enterprises was directly and positively on their use of the Internet to market their products and cooperation with industry partners. Mombourquette (2008) noted that rely on information technology usually leads to cost savings in product management, enhance revenue, and increase the overall operations efficiency and improve competitiveness, enhance marketing, as well as qualitative and quantitative improvement of information and reduce transaction costs.

Nakata, Zhu and Kraimer (2008) found all of institutions that have information technology capabilities are more oriented to the customer's benefit and customer orientation that has a positive impact on market performance and financial performance. The search continued to clarify that merging communications technology throughout the enterprise, and in the marketing process, leading to improve strategic and financial performance (Haugh & Robson, 2005). However, the studies also showed that ' under the possibility of gaining a competitive advantage, such opportunities are usually very short. So, these institutions should seek to limit the benefits of the available market to competitors. Therefore, the competitive advantage provided by communication technology continue only as long as it cannot be copied by competitors, and therefore cannot be considered as sustainable (Haugh & Robson, 2005).

**There is statistically impact at significance level ( $\alpha \leq 0.05$ ) of the adoption of the information technology elements on Employees Performance of Interior Ministry of Kuwait State.**

More specifically:

H1a. Hardware directly influences Employees Performance of Interior Ministry of Kuwait State.

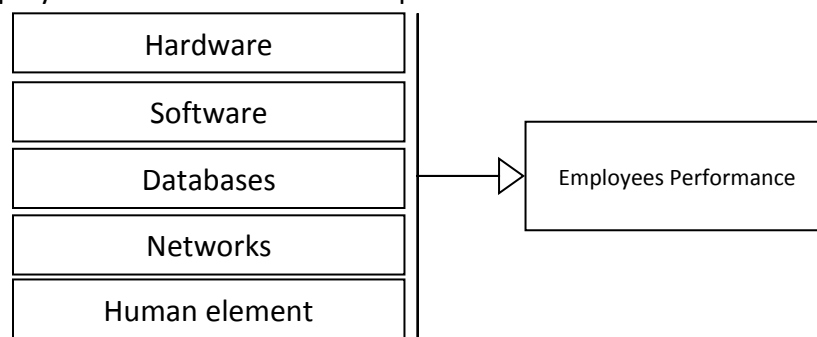
H1b. Software directly influences Employees Performance of Interior Ministry of Kuwait State.



H1c. Databases directly influence Employees Performance of Interior Ministry of Kuwait State.  
 H1d. Networks directly influence Employees Performance of Interior Ministry of Kuwait State.  
 H1e. Human element directly influences Employees Performance of Interior Ministry of Kuwait State.

### 3. Research Framework

Based on the study hypothesis, the following theoretical framework, shown in Figure 1. As can be seen from the framework, the study investigates the effect of the adoption of the information technology elements on Employees Performance of Interior Ministry of Kuwait State, where information technology elements are the independent variable and are positively related to Employees Performance as the dependent variable.



**Figure (1).** Theoretical Model

### 4. Methodology

In this section, we discuss measures, sample and data collection as well as the statistical tests used to evaluate the hypothesis.

#### 4.1 Measures

The constructs in this study were developed by using measurement scales adopted from prior studies. Modifications were made to the scale to fit the purpose of the study. All constructs were measured using five-point Likert scales with anchors strongly disagree (= 1) and strongly agree (= 5). All items were positively worded. information technology elements consist of hardware, software, databases, networks, and the human element were adapted from previous studies Broadbent et al. (1999), Lewis and Byrd (2003) and Byrd et al. (2008); Al-Hawary & Ismael (2010). Employees Performance was adapted from the studies of Gana & Bababe (2011); Jabeen (2011).

#### 4.2 Sample

The population of the study was all the managers at different levels of Interior Ministry of Kuwait State with (820) managers. The unit of analysis of this study was the managers at different levels of Interior Ministry of Kuwait State. All of the managers were included in this study, (820) questionnaires were distributed to the study population. The questionnaires, with

instructions of how to complete them, were distributed to respondents by an interviewer. Subjects were asked to assess their perceptions of various items of different constructs. Assessments were based on A Five-point Likert scale ranging from “strongly disagree (1) to “strongly agree (5) was used to measure the 41 items. In order to minimize possible response bias, instructions emphasized that the study focused only on their personal opinions. There was no right or wrong answers. After completion, the questionnaires were checked and collected by the interviewer. The (519) questionnaires were returned valid for statistics, table 2 shows the characteristics of the population of the study

<b>Variable</b>		<b>Frequency</b>	<b>%</b>
Gender	Male	358	68.9
	Female	161	31.1
Age group	less than 30	119	22.9
	30- less than 40	291	56.1
	40- less than 50	87	16.8
	50 years and more	22	4.2
Educational level	Diploma	181	34.9
	Bachelor	329	63.4
	Master	8	1.5
	PHD	1	0.5

**Table (2).** Sample characteristics

### **4.3 Data Gathering**

The research data was collected through the questionnaire. The questionnaire began with an introductory statement that asked respondents to administer their own responses, assured them of confidentiality, and so forth. This was followed by a request for demographic information and the measures. Data were collected through questionnaires. The study was based on the development and administration of a self-administered survey and conducted in Kuwait.

### **4.4 Reliability and validity of the survey instrument**

The survey instrument with 41 items was developed based on information technology elements as independent variables with five dimensions : Hardware (HA1-HA5), software (SO1-SO6), databases (DA1-DA5), networks (NE1-NE5), and human element (HE1-HE5). Employees Performance as dependent variables (EP1-EP14).The instrument was evaluated for reliability and validity. Reliability refers to the instrument's ability to provide consistent results in repeated uses (Gatewood & Field, 1990). Validity refers to the degree to which the instrument measures the concept the researcher wants to measure (Bagozzi & Phillips, 1982).

Construct and item	Loadings	Communalities	Eigenvalue	Variance	Reliability
<b>Hardware (HA)</b>			2.982	55.668	.7959
HA1	.578	.760			
HA2	.588	.767			
HA3	.524	.651			
HA4	.580	.762			
HA5	.613	.783			
<b>Software (SO)</b>			2.632	42.225	.7159
SO1	.604	.777			
SO2	.592	.599			
SO3	.508	.713			
SO4	.521	.567			
SO5	.589	.700			
SO6	.562	.602			
<b>Databases (DA)</b>			2.368	43.963	.6675
DA1	.536	.660			
DA2	.554	.674			
DA3	.558	.747			
DA4	.540	.663			
DA5	.511	.557			
<b>Networks (NE)</b>			2.674	44.440	.7389
NE1	.554	.674			
NE2	.530	.656			
NE3	.628	.793			
NE4	.533	.577			
NE5	.541	.573			
<b>Human element (HE)</b>			2.549	43.645	.7656
HE1	.540	.663			
HE2	.561	.601			
HE3	.588	.698			
HE4	.560	.749			
HE5	.533	.577			

**Table (3).** Factor analysis of information technology elements

Construct and item	Loadings	Communalities	Eigenvalue	Variance	Reliability
Employees Performance (EP)			<b>3.124</b>	<b>60.127</b>	<b>.9365</b>
EP1	0.534	0.568			
EP2	0.587	0.621			
EP3	0.536	0.553			
EP4	0.587	0.624			
EP5	0.549	0.581			
EP6	0.539	0.562			
EP7	0.524	0.552			
EP8	0.521	0.546			
EP9	0.537	0.567			
EP10	0.511	0.524			
EP11	0.528	0.561			
EP12	0.534	0.573			
EP13	0.597	0.624			
EP14	0.582	0.621			

**Table (4).** Factor analysis of Employees Performance

Factor analysis and reliability analysis were used in order to determine the data reliability for the information technology elements, and Employees Performance. A within factor, factor analysis was performed to assess convergent validity. The results of the factor analysis and reliability tests are presented in Table (3) and Table (4). All individual loadings were above the minimum of 0.5 recommended by Hair et al. (1998). For exploratory research, a Chronbach  $\alpha$  greater than 0.70 is generally considerate reliable (Nunnally, 1978). Chronbach  $\alpha$  statistics for the study contracts are shown in Table (4) and Table (5). Thus it can be concluded that the measures used in this study are valid and reliable. On the basis of Cattell (1966) and Hair et al. (1998) criterion, factors with eigenvalues greater than 1.0 and factor loadings that are equal to or greater than 0.50 were retained. 41 items, loading under five elements of information technology and one factor of Employees Performance.

***Psychometric properties and elements of the revised information technology on the Employees Performance***

Kaiser-Meyer-Olkin and Bartlett’s Test of Sphericity has been used as Pre-analysis testing for the suitability of the entire sample for factor analysis as recommended by Comrey (1978), the value of The Kaiser-Meyer-Olkin measure was used to assess the suitability of the sample for each unifactorial determination. The KMO values found (see Table 5) are generally considered acceptable (Kim and Mueller, 1978). All factors in each unifactorial test accounted for more than 53 percent of the variance of the respective variable sets. This suggests that only a small amount of the total variance for each group of variables is associated with causes other

than the factor itself, and the Bartlett tests of sphericity was significant at  $p < 0.05$ , thus, indicating that the sample was suitable for factor analytic procedures (see Table 5).

Variables	Kaiser-Meyer-Olkin Values	Bartlett's Test of Sphericity	
		Approx. Chi-Square	Sig.
Hardware	.801	857.325	.000
Software	.739	924.356	.000
Data base	.654	1123.325	.000
Network	.767	1257.451	.000
Human element	.702	1168.958	.000
Employees performance	.815	1203.354	.000

**Table (5).** Kaiser-Meyer-Olkin and the Bartlett's Test of Sphericity.

#### 4.5 Descriptive Statistics Analysis

Table (6) indicates that managers of Interior Ministry of Kuwait State evaluate Network (with the highest mean scores, i.e.  $M = 4.01$ ,  $SD=.594$ ) to be the most adopted of information technology elements within their Ministry and evident to a considerable extent, followed by Human element ( $M= 3.96$ ,  $SD=.622$ ), Software ( $M = 3.95$ ,  $SD=.570$ ), Data base ( $M = 3.83$ ,  $SD=.645$ ), and Hardware (with the lowest mean scores  $M = 3.81$ ,  $SD=.691$ ). With regard to Employees Performance, managers of Interior Ministry of Kuwait State evaluate their Performance (with the high level, i.e.  $M = 3.80$ ).

Dimension	Mean	Standard deviation
<b>Information technology elements</b>	<b>3.92</b>	
Hardware	3.81	.691
Software	3.95	.570
Data base	3.83	.645
Network	4.01	.594
Human element	3.96	.622
<b>Employees performance</b>	<b>3.80</b>	

**Table (6).** Descriptive analysis of information technology elements and Employees Performance.

## 5. The Results

### *Test of hypothesis*

Multiple regression analysis was employed to test the hypotheses. It is a useful technique that can be used to analyze the relationship between a single dependent variable and several independent variables (Hair et al., 1998). In this model, Employees Performance acts as the dependent variable and information technology elements as the independent variables. From the result as shown in Table (7), the regression model was statistically significant ( $F = 15.291$ ;  $R^2$

=.129; P = .000). The R2 is .129, which means that 12.9 per cent of the variation in Employees Performance can be explained by hardware, software, databases, networks, and the human element. The proposed model was adequate as the F-statistic = 15.291 was significant at the 5% level ( $p < 0.05$ ). This indicates that the overall model was reasonable fit and there was a statistically significant association between information technology elements and Employees Performance. Table VI also shows that Hardware ( $p < 0,05$ ;  $\beta = .230$ ), Software ( $p < 0,05$ ;  $\beta = .358$ ), Data base ( $p < 0,05$ ;  $\beta = .317$ ), and Human element ( $p < 0,05$ ;  $\beta = .290$ ),, had a significant and positive effect on Employees Performance. This provides evidence to support H1a, H1b, H1c, H1e and H1e. Network ( $p > 0,05$ ;  $\beta = .182$ ),, had a insignificant effect on Employees Performance. This provides evidence not to support H1d. Based on the  $\beta$  values Software has the highest impact on Employees Performance followed by Data base, Human element, and Hardware .

Independent variables	Standardized beta	t	Sig.	Tolerance	VIF
Hardware	.230	4.071	.000	.530	1.886
Software	.358	3.636	.000	.175	5.729
Data base	.317	3.998	.000	.270	3.710
Network	.182	1.781	.075	.162	6.169
Human element	.290	10.166	.000	.234	4.282

**Notes: R 2 = .129; Adj. R 2 = .121; Sig. F = 0.000; F-value = 15.291; dependent variable, Employees Performance; p < 0.05**

**Table (7).** Regression results between information technology elements and Employees Performance.

### 8. Discussion

It's become clear from the study results that there is an interest by the Interior Ministry to invest in networking as more than other elements of information technology, which enable workers to communicate, for the purpose of providing better service to the citizen, which is reflected on the quality of the service, and get them quickly, and the ability to provide this service in all provinces while came after the human element as one of the areas of information technology in last place in terms of focus by the Kuwaiti Interior Ministry, So information technology management personnel have qualifications to manage all elements of the technology but not enough attribute, the researcher due this that there may be a problem to some extent in the selection process of human resource.

*Hardware element:* The results of the study shows that there is a clear interest by Kuwaiti Interior Ministry Department in hardware where from the answers of the study sample revealed that the Ministry is seeking always to choose the most appropriate devices and marked by high speeds, large storage capacity and update ability which might reflect on worker productivity and the ability to provide service at the time and the right speed in line with all members of society needs and the researcher due this to the Kuwaiti Government and its desire to serve all society segments.



*Software element:* Illustrated by the study results that the Department of the Interior Ministry have suitable software that fit the nature of provided services by high capabilities in information retrieval, and the ability to assist employees in decisions making and problems solving by providing the required information. As to the available software match in quality and amount with the work needs and characterized by simply use which is reflected on the workers ability to handle and live with them to provide high quality service to the citizens.

*Data base element:* The results of the study shows that the Kuwaiti Ministry of Interior has high interest in the provision of databases appropriate to the needs of the employees providing a wide range of information fit to the nature of the service provided by the Department to update data that fit the external environment updates. The management encourages the exchange of information between all departments and sections so that the information available to all employees without exception with some kind of security and protection for that data and the researcher attribute that to the private nature of the service provided by the Ministry.

*Network element:* Illustrated by the results of the study that there is an interest by the Ministry in networks investment where the Ministry has Internet networks as a means of communication between employees, centers and units as a tool for gathering information about service recipient this requires high speed and free from technical problems networks. The researcher attribute that the Kuwaiti Government is heading these days toward e-Government as a means to provide high quality services and enable the citizen to get service at any time without hardship and effort.

*Human element:* The results of the study shows that the Kuwaiti Ministry of Interior always working on selecting persons qualified in the field of information technology where always seeks to provide training programs to enable them to keep abreast of developments in modern technology which makes their ability to cope with and addressed various situations.

*Employee's performance level:* Evidenced by the sample answers that there are some problems in the performance of their workers, that their worker not wanting to work outside official working hours, and take responsibility as there are problems by some regarding Compliance with rules and procedures, compliance with working time and weak capability on decision making capacity, The researcher attributed the problem of poor performance to unsatisfactory incentives and rewards offered by the Ministry for workers which might reflect on their performance. The other thing there may be some problems in the selection process of employees that may be caused by Nepotism and favoritism in selecting the right people to work in addition to a lack of appropriate training programs for workers fit with their work nature.

Evidenced by the results of the study hypotheses that information technology elements have a significant impact on employees performance, this effect can be explained by investment in information technology is an important tool in the field of performance enhancement, so that interest and investment in technology elements helps various administrative posts with each other, eliminate duplication, and reduce errors and effort, Which contributes to increasing productivity and leads to better management decisions, and processes more efficiently, thus improving the performance of employees and this result agrees with (Laudon & Laudon, 2010). As information technology is an institutional means that

strengthening processes to assist the Ministry to reshape its structure, and improve the complex and dynamic business environment that we are witnessing today. It can be said that its infrastructure could be regarded as important organizational capacity that can be an effective source of corporate value (Bhatt & Grover, 2005). Add to that, ease use of technology plays an important role in individual performance, to create satisfaction about the system, leading to increased use, and ultimately, contribute to the perceived improvements on organizational performance (Stone et al., 2006).

The study results indicate an impact of using devices on the employees performance, indicating that the availability of devices with large storage capacities and high speed allows the Ministry to use appropriate software that helps employees to perform their duties as required, and increases their efficiency in delivering high quality service to the Kuwaiti citizen as to availability of convenience hardware increases the worker possibility in their application on the ground.

The study results indicate an impact of using software on employee's performance in the Ministry of the Interior; this can be explained that possession of workers of fit programs with the nature of these privilege programs to ease of use and learning can improve the performance of employees.

The study results indicate an impact of using databases on the employees performance in the Ministry of the interior, and can be explained that the appropriate databases provide comprehensive information and tidy, precise and true to workers, helps them achieve better performance.

The study results indicate an insignificant impact of networks use on the employee's performance in the Ministry of the Interior, and can be explained that the availability of internet networks in the work environment prevented workers from performing their works, and being busy with others concerns for outside their work. In other words, the abundance of communication channels between employees actually weaken labor force with which requires greater effort and time, which is reflected on their performance and their ability to provide the service required for the citizen.

The study results indicate an impact of the human element on the employees performance in the Ministry of the Interior, and can be explained that a scientifically qualified persons and practice in the use of information technology, ability to deal with software and existing systems, and develop efficiently and positively reflected updated technical information technology component of hardware, software and networks which have a positive impact on the performance of employees who provide service to the citizen.

## **9. Recommendations:**

In light of the researcher findings we recommend:

1. Continuously working on updating and developing its infrastructure (hardware, software and databases and networks) permanently, continuous and proportional to the nature of the work to increase the capacity to absorb the increase in the service request to enable the Ministry of Converting to e-Government.

2. taking into account the human element when selection and appointment in terms of specialization and qualifications, so that the efficiency of government agencies rely heavily on investment in human resources, taking into account the mode of avoiding nepotism in recruitment.
3. Providing training programs for workers on how best to deal with information technology and development of building and developing individual abilities among workers to use them properly.
4. Educate employees on the use of networks in the interest of business, not for recreational purposes and that by planting work culture among employees.
5. Take advantage of the positive aspects of the technology revolution in order to improve the service received by the citizen.
6. Activate incentive programs and rewards in accordance with the needs of workers in order to upgrade their performance.

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