

# The Effect of Employing the Electronic Cost Accounting System in Dealing with Government Spending: Applied Research in the General Company for the Cement Industry

Emad Moafaq Abed<sup>a</sup>, Amina Ibrahim Khalif<sup>b</sup>, <sup>a</sup>Department of Accounting Baguba Technical Institute, <sup>b</sup>Middle Technical University Baghdad Iraq, Email: <sup>a</sup>[Dr.emadmouafaq@techbaq.mtu.edu.iq](mailto:Dr.emadmouafaq@techbaq.mtu.edu.iq), <sup>b</sup>[Dr.amena321@gmail.com](mailto:Dr.amena321@gmail.com)

The research aims to shed light on the impact of employing the electronic cost accounting system in dealing with government expenditures in the General Company for the Cement Industry, The electronic cost accounting system has a significant impact on controlling government spending and the extent to which the service is used corresponding to the cost borne by the state by providing financial credits to accomplish activities that represent the basic building block of community service in all specialisations that benefit from it, which is represented by the inputs to reach a good production represented by the outputs. This requires spending money to achieve this goal by controlling government spending using an integrated accounting method that provides appropriate and timely data, and this method is to distribute the spending to the spending centres (the cost) according to the quantity and type of it, and to determine the responsibility about its spending, whether it is operating or capital expenditures. To achieve this, the research relied on the analysis of its variables on the questionnaire as a main tool for collecting data and information. The application results have shown that there is a positive and moral effect of employing the electronic cost accounting system in dealing with government spending, and this is a good indicator of the impact of the electronic cost accounting system in dealing with government spending for the research sample company.

**Key words:** *Electronic cost, Accounting system, Government Spending.*



## Introduction

The electronic cost accounting system has acquired the economic and social importance of being a scientist interested in measuring the wealth of individuals and companies through the economic development of human activity. Until today it has become an important tributary of administrative information systems tributaries, to rationalise the decisions regarding directing resources and distributing them to the necessary uses for them.

The study of the impact of the electronic cost accounting system in rationalising government spending decisions in companies contributes to enhancing the ability of these companies to achieve the general goals of economic development, and developing the dynamics of decision-making at the top management level to increase its efficiency to make optimal use of available resources. As the use of the electronic cost accounting system led to a noticeable change in the ways and methods of doing business, it affected the building of organisational structures in companies, which led to giving more flexibility in the expansion of the corporate activity cycle, as the use of computers led to a higher degree of integration and interconnection between activities within the company, which affected the levels of planning and control functions, decision-making and speed in completing and controlling operations, in addition to reducing costs.

The research problem has posed several questions, including what is the electronic cost accounting system and how ready is the General Company for the Cement Industry to implement it?, What is the effect of the dimensions of the electronic cost accounting system (flexibility, convenience, speed and accuracy, material and human ingredients) in the government spending of the research sample company? Hence the importance of research on this topic has emerged through the study of new variables for the dimension of the electronic cost accounting system, which is flexibility, convenience, speed and accuracy, material and human constituents, which can be used to address government spending, the study and analysis of the nature of the relationship between the dimensions of the electronic cost accounting system and the extent of its impact on government spending for the General Cement Industry Company, a study indicates (Shaheen, 2011) to the factors affecting the efficiency and effectiveness of computerized accounting information systems in commercial banks operating in Palestine, as the study aimed to analyse the factors affecting the efficiency and effectiveness of banking accounting information systems and assess the impact of economic and behavioural factors on the efficiency and effectiveness of those systems.

One of the most important results of the study was that computerised accounting information systems in the Palestinian banking sector were of great importance in view of their use of advanced hardware and software in producing and communicating accounting information that is highly efficient and effective.

As for the study by Hamada (2010), "The effect of general controls on electronic accounting information systems in increasing the reliability of accounting information", this study aimed to identify the impact of general controls on electronic accounting information systems in increasing the reliability of accounting information by identifying the concept of the reliability of accounting systems and their characteristics, and also by becoming acquainted with the concept of general control controls for electronic accounting information systems and their components. One of the most important results of the study was that the controls related to organisational control and control of file security and protection and control over the documentation and development of the system, had a significant impact on the reliability of accounting information while the effect of controls accessing electronic accounting information systems was an average effect in increasing the reliability of accounting information.

A study by Abu Howaidi (2011) aimed to determine the importance of using electronic accounting information in rationalizing capital spending decisions, and measuring the extent of awareness of that importance, and determining the extent to which management in the companies listed on the Palestine Stock Exchange used accounting information to rationalise capital spending decisions, and also looked at the obstacles that limit such use, and the identification of methods for evaluating capital spending decisions of companies. The descriptive analytical method was used and relied on the method of comprehensive survey of the study community.

The study relied on a questionnaire designed to serve its goals, and the study concluded many results, the most important of which are: Many companies listed on the Palestine Stock Exchange plan their investments annually, but there are a limited number of companies that do not develop a plan at all, that is, these companies do not have a capital budget, but rather assess their decisions simultaneously. The management of such companies faces obstacles that lead to poor use of accounting information in rationalizing capital spending decisions, which are: according to the viewpoint of the members of the sample, poor availability of information in the required accuracy and speed, and the weak participation of company departments and divisions in making capital spending decisions.

## **Methodology**

### ***Research Problem***

The problem can be formulated with the following questions:

1. What is the electronic cost accounting system and how ready is the General Company for Cement Industry to implement it?
2. What is the reality of government spending in the General Company for the Cement Industry?

3. The factors that help to address government spending?
4. What is the effect of the dimensions of the electronic cost accounting system with its flexibility, convenience, speed and accuracy, material and human ingredients, in the government spending of the research sample company?

### ***Research Importance***

The research derives its importance from:

- The study of new variables for the dimension of the electronic cost accounting system, which are flexibility, convenience, speed and accuracy, material and human ingredients that can be used to deal with government spending.
- The study and analysis of the nature of the relationship between the dimensions of the electronic cost accounting system and the extent of its impact on government spending for the General Company for the Cement Industry.

### ***Research Objective***

The research seeks to achieve the following goals:

1. Knowing the reality of the company's electronic cost accounting system by using a number of related measures and indicators.
2. Knowing the nature of the relationship between the existence of an electronic cost accounting system within this company and government spending from the point of view of the research sample.
3. Showing the strong effect that the electronic cost accounting system has become on government spending.
4. Coming up with recommendations that would develop the relationship between the electronic cost accounting system and government spending for these companies.

### ***Research Hypothesis***

The research is based on the following hypotheses:

- 1- There is a statistically significant correlation between the electronic cost accounting system and government spending.
- 2- There is a statistically significant effect of the electronic cost accounting system on government spending.
- 3- There is a statistically significant multiple effect of the dimensions of the electronic cost accounting system combined in government spending.

### ***Field and Research Data***

1. Time limits: The research was completed during the year 2020
2. Spatial limits: The General Company for the Cement Industry.

### ***Methodology of the Study***

The study relied on the experimental and analytical method through collecting the necessary data and analysing it. This approach focuses on seeking opinions about the research sample and its directions, and uses the descriptive approach: to describe the reality of the studied variables, and the analytical method, using the analysis of the results of statistical treatments for research variables to draw conclusions on the basis of adopting recommendations.

### ***Analysis Tools***

The questionnaire, which represents the main tool for gathering information on the research, was distributed for the period from (1/2/2020) to (13/1/2020). It was divided into two axes: the first axis consists of 20 paragraphs related to the measurement of the electronic cost accounting system, and the second axis is composed of 10 paragraphs related to measuring government spending.

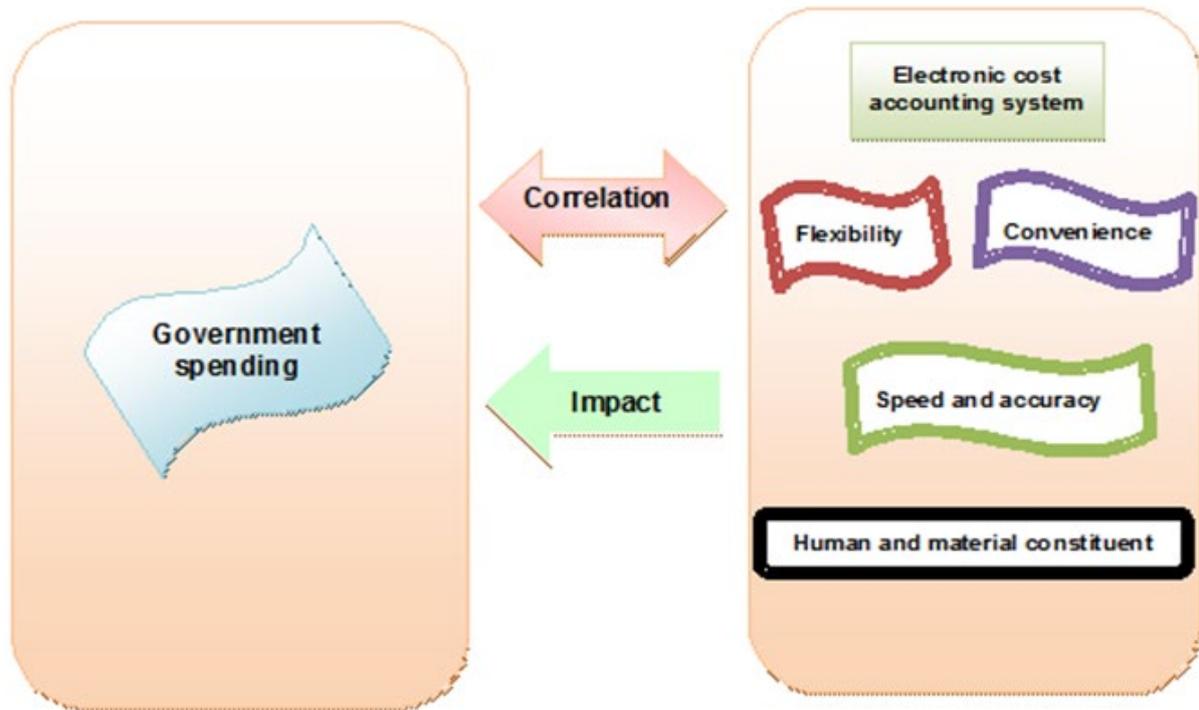
### ***Research Problems and Difficulties***

- The lack or scarcity of references, studies and scientific research on the subject of the electronic cost accounting system, as it is considered one of the new topics in the field of research and studies.
- Difficulty in obtaining information from the General Cement Industry Company.

### ***Research Form***

Based on the opinions of a number of researchers in previous studies that review the independent variable (electronic cost accounting system), which is specified in four dimensions (flexibility, convenience, speed and accuracy, material and human ingredients ), and its effect on the dependent variable (government spending), as shown in Figure (1).

**Figure 1: Research hypothesis diagram**



**Reference:** Prepared by the researcher

### ***Research Community and Sample***

In order to test the hypotheses of the study and achieve its goals, the researcher chose the sample (random intent) from the study community in the General Company for the cement industry, represented by the following certificates (Ph.D., Master, Higher Diploma, Bachelor, Diploma, and Preparatory) considering that these certificates are closer to the subject of the study, and the size of the community, according to the statistics of the company, which is (130) individuals, and the sample size of this community has been determined according to the global model (D. Morgan); to determine the sample size at the significance level (0.05) and up to (0.01), then the sample size according to this model reached (97) individuals, i.e. (75%) of the total study population, as shown in Table 1.

**Table 1:** Study sample identification

| N  | S  | N   | S   | N   | S   | N    | S   | N      | S   |
|----|----|-----|-----|-----|-----|------|-----|--------|-----|
| 10 | 10 | 100 | 80  | 280 | 162 | 800  | 260 | 2800   | 338 |
| 15 | 14 | 110 | 86  | 290 | 165 | 850  | 265 | 3000   | 341 |
| 20 | 19 | 120 | 92  | 300 | 169 | 900  | 269 | 3500   | 246 |
| 25 | 24 | 130 | 97  | 320 | 175 | 950  | 274 | 4000   | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500   | 351 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000   | 357 |
| 40 | 36 | 160 | 113 | 380 | 181 | 1200 | 291 | 6000   | 361 |
| 45 | 40 | 180 | 118 | 400 | 196 | 1300 | 297 | 7000   | 364 |
| 50 | 44 | 190 | 123 | 420 | 201 | 1400 | 302 | 8000   | 367 |
| 55 | 48 | 200 | 127 | 440 | 205 | 1500 | 306 | 9000   | 368 |
| 60 | 52 | 210 | 132 | 460 | 210 | 1600 | 310 | 10000  | 370 |
| 65 | 56 | 220 | 136 | 480 | 214 | 1700 | 313 | 15000  | 375 |
| 70 | 59 | 230 | 140 | 500 | 217 | 1800 | 317 | 20000  | 377 |
| 75 | 63 | 240 | 144 | 550 | 225 | 1900 | 320 | 30000  | 379 |
| 80 | 66 | 250 | 148 | 600 | 234 | 2000 | 322 | 40000  | 380 |
| 85 | 70 | 260 | 152 | 650 | 242 | 2200 | 327 | 50000  | 381 |
| 90 | 73 | 270 | 155 | 700 | 248 | 2400 | 331 | 75000  | 382 |
| 95 | 76 | 270 | 159 | 750 | 256 | 2600 | 335 | 100000 | 384 |

"N" is population size Note

"s" is sample size

Ninety seven questionnaires were distributed to the sample. On the other hand, the number of forms received and fulfilling the requirements of analysis and study from the sample, which were answered, reached 91 questionnaires. Table 2 shows the study sample, the number of distributed, received forms, and the percentage of their retrieval.

**Table 2:** Description of the research sample distribution

| Sample population  | No. of distributed forms | No. of received forms | Recovery% |
|--|--------------------------|-----------------------|-----------|
| General Company for Cement Industry he General Tax Authority | 97                       | 91                    | 94%       |

### *Measuring Honesty and Consistency*

**Honesty Test:** The researcher is subject to the questionnaire form on a group of arbitrators with a specialist in the field of research, and the researcher has responded to the arbitrators'

opinions and made the necessary changes in the light of the submitted proposals, and the questionnaire form is finalised.

**Stability Test:** Stability means that the questionnaire gives the same result if it was redistributed more than once under the same conditions and conditions, and that the test of stability here is according to the formula (Cronbacg Alfe). In the case of a test in which the scores are on a grade (not one and zero), but you can take different values (1, 2, 3, 4 ...), as in the case of tests that use a Likert scale, as mentioned above to answer paragraphs. This equation is also used in tests of the type of substantive or essay questions (Al-Jadri and Abu Hilo, 2009: 171). Table 3 shows the stability test for the study variables.

**Table 3:** Stability testing of search variables using alpha Crew coefficient

| No. | Variables                         | Alpha Cronbach coefficient |
|-----|-----------------------------------|----------------------------|
| 1   | Electronic cost accounting system | <b>0.957</b>               |
| 2   | Government spending               | <b>0.912</b>               |
| 3   | Total research variables          | <b>0.920</b>               |

It is clear from the results shown in the above table that the value of the Cronbach alpha coefficient is high for each of the research variables, and the total value of the research variables of the alpha coefficient has reached (0.920), which is a high persistence value, and this result confirms the validity and consistency of the study questionnaire and its validity for application to the basic study sample, analysing the results, answering the study questions and testing their hypotheses.

### ***Statistical Tools and Methods Used in Data Processing and Analysis***

The researcher relied on analysing and processing data on a number of tools, statistical methods, as follows:

- ❖ Ready statistical package (Spas-Ver-19): used; to extract the results.
- ❖ Microsoft Excel 2010 to analyse the data.

### **Theoretical Review**

#### ***The Concept of Electronic Cost Accounting System***

The electronic cost accounting system is defined as "one of the components of the administrative organization specialising in collecting, classifying, processing and communicating quantitative financial information to assist internal and external parties in making decisions" (Saad, 2014, p. 34).

It is also known as "a set of activities and related documents designed to collect data, operate data, and produce information to present it to a variety of decision makers in and outside the organization" (Hurt, 2008, p. 13).

Carrado & Bradforal (2002, p. 2) defined the electronic cost accounting system as "The advanced use of information technology where information technology is a component of information systems because of its superior ability to provide accurate, organized and valuable information that helps financial departments to make their financial decisions and meet the needs of customers in the best possible way and facilitate the process of change and continuous updating".

Laundon defined it as a set of interlocking components and standard procedures that work together to collect the information the company needs, store, distribute, publish, and retrieve it with the aim of supporting operations, management, cooperation, analysis, visualization and oversight within the company (Laundon, 2008, p. 123).

Al-Qadi and Abu Zalta (2010, p. 369) defined it as "all quantitative and non-quantitative information pertaining to economic events, which is processed and reported on in the financial statements and in operating plans and reports used internally, and thus represents the outcome of the operational operations that take place on the accounting data electronic devices to achieve the benefit of using them". The electronic cost accounting system is defined as "one of the computerized information systems in business companies. This system aims to store the accounting information that is reached after processing the accounting data that is obtained from the internal and external environment" (Hafnawi, 2001, p. 66).

The electronic cost accounting system plays an important role in operating, processing, storing, transferring and extracting financial information and data for the company's benefit through computers, means of communication, interconnection networks and other equipment. The electronic cost accounting system runs the data and provides it to users who benefit from the outputs of this information (Al-Alami, 2015, p. 19).

### ***Dimensions of the Electronic Cost Accounting System***

The electronic cost accounting system distinguishes itself from other concepts and strategies, through a set of dimensions whose study can give important information to business companies and the current research deals in some detail with those dimensions:

#### **1. Flexibility**

The ability of electronic cost accounting system information to adapt to more than one user and more than one application; therefore, electronic cost accounting system information must

be available in a balanced manner that can be used by different administrative levels effectively in the decision-making process (Kofach & Cathcart, 1999)

## **2. Convenience**

That the electronic cost accounting information be appropriate, relevant and useful in improving decision-making, it must be appropriate to the topic and directed specifically to the problem being studied, and linked to the needs of the user (Barlow & Whitten, 1994, p. 78). Relevance is the ability of electronic cost accounting information to bring about a change in the direction of a user's decision, and for electronic cost accounting information to be appropriate, the following characteristics are required: (Hanan, 2009, p. 72)

- A. The synchronisation feature or the appropriate timing of the information.
- B. The predictive value characteristic of information.
- C. The property of the ability to evaluate the feedback.
- D. The reports extracted from the computerised system are suitable to the needs of the company.

## **3. Speed and accuracy**

The electronic cost accounting system is free of errors where the speed and accuracy of information contribute to the quality of the decision, as it works to avoid decisions and reduce the cost and waste of time, and the speed and accuracy of the required information varies according to the need for use and the nature of the problem. Note that the accuracy of the system increases the cost, as a higher level of accuracy requires a higher cost, so it is necessary to emphasise the costly burden of information so that the expected return of the information is greater than the cost of obtaining it (Whitten & Barlow, 1994, p. 79).

The speed of the electronic cost accounting system information is represented in the following points: (Al-Alami, 2015, p. 23)

- A. The speed of entering information into the system.
- B. The speed of making adjustments to the inputs into the system.
- C. Speedy reporting in the system.
- D. The speed of service delivery and reaching the end user.

The accuracy factor is the following:

- A. The scarcity of errors and inconsistencies in the report and the outputs from the system.
- B. You can rely on the data generated by the system.
- C. The electronic cost accounting system provides accurate information.

#### **4. The human and material components:**

The electronic cost accounting system is "an interconnected and integrated set of material and human components that interconnect and interfere with each other through a specific system for the purpose of extracting valuable results and communicating them to the beneficiaries to take the necessary decisions to control and conduct their work in a timely manner". This dimension is represented in the following points: (Qaoud, 2007,p. 66)

- A. Providing the necessary capabilities and capabilities in the computerised system.
- B. The effectiveness of the computerised system towards meeting the needs and desires of customers.

#### ***The Concept of Government Spending***

The importance of studying government spending has increased as a result of a similar development that has occurred in the role of the state in society and the increase in its interference in economic life. It has also taken a large part from the overall economic analysis. As it reflects all aspects of public activities, various literature has shown that there is no agreement and consensus on the definition of government spending, as this is evidenced by the presentation of some of the following definitions (Muhammad, 2012, p. 1):

Government spending is defined as "A set of expenses that the state spends in the form of a certain amount of money during a specific time period aimed at satisfying certain needs of the society organized by this state" (Al-Jubouri, and Al-Zamili, 2014, p. 192). It is also defined as "the amounts that the state pays to provide services to citizens or to purchase goods in order to be able to provide its services or assistance as a class of society or to establish various economic and social projects" (Al-Takriti, 1986, p. 126).

Government spending is a means to satisfy public needs, and therefore it has occupied a particular importance in the scope of the study of public finance, as it is a single reason that justifies the state obtaining public revenues, meaning that the state does not obtain public revenues except with the intention of financing public expenditures. (Michael, 2007, p. 52)

Government spending is divided into two types: (Shihab, 2017, p. 304)

- 1. Current expenditures:** This includes the public expenditures that the state is targeting to run its administration and obtain the goods and services it needs to satisfy the current needs, and is represented by the expenses that pay salaries, wages and other allocations, and the expenditures of goods, services and current transfers, including pensioners' salaries and social security and paid in cash or issued in kind and payment of interest and remittances in kind.

- 2. Investment expenditures (Capitalism):** These are expenditures that the state allocates to obtain the capital equipment necessary to increase commodity production and increase public services.

## Empirical Analysis and Test

### *Empirical Analysis*

This paragraph seeks to clarify the most important characteristics of the members of the research sample who are working in the General Company for the Cement Industry, through the information included in the questionnaire form that was distributed to them, and a brief description of the members of the research sample follows:

- 1. Sex:** Table (4) shows that the number of males reached (53) individuals, or (58.2%) of the total study sample of (91), as for the percentage of females, the number of its members reached (38), i.e. (41.8%) of the total study sample.
- 2. Age:** Table (4) shows that the age group of (41 - 50 years) has a number of its members (36), i.e. (39.6%) of the total study sample, which is (91), which is the highest percentage, followed by the age group between (31 - 40 years), as it formed (28) individuals, i.e. (30.8%), followed by the age group between (51 - 60 years), as it achieved (14) individuals, i.e. (15.4%), followed by the age group between (20-30) Years), as the number of its members reached (8), i.e. by a rate of (8.8), and finally the category (61 years or more) formed (5) individuals, i.e. a rate of (5.5%).
- 3. Academic qualification:** Table (4) shows that the vast majority of the sample members have a bachelor's degree, having reached (59) of the total study sample, which is (91) or (64.8%) which is the highest percentage, while it reached The number of those holding a diploma is (19) individuals, i.e. (20.9%), followed by the number of those holding a higher diploma, as they number (6) individuals, or (6.6%), while the number of those holding a junior certificate (5) (Individuals, i.e. at a rate of (5.5), and finally, the number of those holding a master's and doctorate degree reached (1) person each, i.e. (1.1%) of the total study sample.
- 4. Number of years of service:** Table (4) shows that the service period (21 years or more) achieved the highest percentage, as the number of its members reached (28) individuals, i.e. (30.8%) of the total study sample, amounting to (91), while it achieved Duration of service (11-15 years) (24) individuals, i.e. (26.4%), followed by a period of service from (16-20 years), as it achieved (18) individuals, i.e. (19.8%), followed by a period of service from (6-10) One year), when it reached (15) individuals, i.e. a ratio of (16.5), and finally the period of service (1-5 years), as the number of its members reached (6) individuals, i.e. (6.6%) of the total sample.

**Table 4:** Characteristics of Sample Members

| No. | Variables           | Categories            | Repetition | Percent % |
|-----|---------------------|-----------------------|------------|-----------|
| 1   | Gender              | Male                  | 53         | 58.2      |
|     |                     | Female                | 38         | 41.8      |
|     |                     | Total                 | 91         | 100.0     |
| 2   | Age                 | 20-30 years           | 8          | 8.8       |
|     |                     | 31-40 years           | 28         | 30.8      |
|     |                     | 41-50 years           | 36         | 39.6      |
|     |                     | 51-60 years           | 14         | 15.4      |
|     |                     | 61 years and over     | 5          | 5.5       |
|     |                     | Total                 | 91         | 100.0     |
| 3   | Educational Degree  | High School           | 5          | 5.5       |
|     |                     | Diploma               | 19         | 20.9      |
|     |                     | Bachelor              | 59         | 64.8      |
|     |                     | Post Graduate Diploma | 6          | 6.6       |
|     |                     | Master                | 1          | 1.1       |
|     |                     | Doctorate             | 1          | 1.1       |
|     |                     | Total                 | 91         | 100.0     |
| 4   | Years of Experience | From 1 to 5 years     | 6          | 6.6       |
|     |                     | From 6 to 10 years    | 15         | 16.5      |
|     |                     | From 11-15 years      | 24         | 26.4      |
|     |                     | From 16-20 years      | 18         | 19.8      |
|     |                     | 21 years and more     | 28         | 30.8      |
|     |                     | Total                 | 91         | 100.0     |

### *Examining the Study Hypotheses*

In this topic, the study hypotheses that were laid down in the methodology of the study, which relates to the study variables, represented in the electronic cost accounting system as an independent variable, and the dependent variable represented by government spending, will be tested.

### **Correlation Hypothesis Test**

This topic seeks to determine the nature of the relationship between the variables of the study, to know the extent to accepting or rejecting the first main hypothesis, which is: there is a statistically significant correlation relationship with a positive moral significance for the electronic cost accounting system with government spending, using the simple correlation coefficient (Pearson Correlation Coefficient) is one of the statistical methods used to measure

the strength and direction of the linear relationship between two quantitative variables at the level of the study sample.

It is clear from Table No. (5) and Figure (2) that there is a positive correlation with positive (significant) moral significance between the electronic cost accounting system and government spending at the macro level, and the correlation has reached its value (0.751 \*) At the level of significance (0.01), and the number of moral relationships (5) was (100%), and the highest sub-value of correlation coefficients in this axis was between flexibility and government spending, as its value reached (0.863 \*\*), at the level of Indication (0.01), this expresses the existence of a relationship of moral significance and function and explains the strength of the relationship between flexibility and government spending, and from here we infer the acceptance of the first major hypothesis, according to which there is a statistical correlation relationship with a positive moral significance for the electronic cost accounting system in government spending. As shown in Figure 2 and Table 5.

**Table 5:** The correlation between the electronic cost accounting system and government spending

| Electronic cost accounting system X<br>Government spending Y |                            | Flexibility | Convenience | Speed and accuracy | Human and material constituents | Total dimensions | Moral relations |            |
|--|----------------------------|-------------|-------------|--------------------|---------------------------------|------------------|-----------------|------------|
|  |                            |             |             |                    |                                 |                  | Number          | Percentage |
| Government spending Y  | Coefficient of correlation | .863**      | .813**      | .670**             | .651**                          | .751**           | 5               | 100%       |
|  | Moral level                | 0.000       | 0.000       | 0.000              | 0.000                           | 0.000            |                 |            |
|  | The decision               | Function    | Function    | Function           | Function                        | Function         |                 |            |

(\*\*) Significant correlation at (0.01) level.

(\*) Significant correlation at (0.05) level.

**Figure 2.** The correlation between the electronic cost accounting system and government spending



### Impact Hypothesis Testing

The current study has developed the second and third major hypothesis, which is the Simple Regression Analysis Hypothesis, and the Multi Regression Analysis Hypothesis.

### The Simple Stress Hypothesis

It is clear from Table No. (6), and Figure No. (3), that the calculated value of (F) has reached (28.21), which is greater than the (F) table value of (6.90) at the level of significance (0.01), and with significance (0,000), And with a degree of freedom (1.90), this result means that there is a statistically significant effect of the respondent variable (electronic cost accounting system) in the dependent variable (government spending), in the research sample.

As for the value of the determination coefficient (R<sup>2</sup>), which is a descriptive measure that is used to explain the usefulness of the regression equation in estimating the values, and represents the rate of decrease in errors when using the regression equation, it was (0.744), which means that (electronic cost accounting system) explains what it is, (74.4%) of the variance that occurs in (government spending), and (25.6%) is an explanation of the factors that did not enter the regression model. Accordingly, these results provide sufficient support to accept the hypothesis of the second major research hypothesis which states (There is a significant effect of the electronic cost accounting system on spending).

Through Table (6), we notice that the value of the fixed term ( $a = 0.651$ ) is statistically significant, as the calculated value of  $t$  was (3.532) and it is greater than the tabular  $t$  at the level of significance% 1 and the degree of freedom (90) and (2.35), but The value of the marginal slope ( $b = 1.131$ ) is statistically significant because the calculated  $t$  value of 15.589) is greater than the tabular  $t$  at the level of significance%1 and the degree of freedom (90) and it is (2.35), and these results confirm a strong influence of the electronic cost accounting system in Government spending .

**Table 6:** Explains the effect of the electronic cost accounting system on government spending

| Independent variable \ Dependent variable | Government Spending |                       |                        |                       |                                 |                       |          |                    |
|---|---------------------|-----------------------|------------------------|-----------------------|---------------------------------|-----------------------|----------|--------------------|
|   | Fixed Limit A       | Calculated Value of t | Marginal inclination B | Calculated Value of T | Selection factor R <sup>2</sup> | Calculated Value of F | Morality | Decision           |
| Electronic cost accounting system         | 0.651               | 3.532                 | 1.131                  | 15.589                | 0.744                           | 28.21                 | 0.000    | There is an effect |

\*The value ( $f$ ) of the table at a significant level 0.05 and the degrees of freedom (1.90 = 3.92),

\*\* The value ( $f$ ) of the table at a significant level 0.01 and the degrees of freedom (1.90 = 6.90)

\* Value ( $t$ ) tabular at a significant level 0.05 and degrees of freedom (90 = 1.66)

\*\* Value ( $t$ ) tabular at a significant level 0.01 and two degrees freedom (90 = 2.35)

### Multi Regression Analysis

Developed in the methodology of the third major hypothesis study, according to which the dimensions of the electronic cost accounting system (flexibility, suitability, speed and accuracy, material and human ingredients) affect both morally and positively in government spending. It is clear from Table (7), that the calculated value of (F) has reached (12.83), which is greater than the (F) table value of (3.52) at the level of significance (0.01), with significance (0.000), and with a degree of freedom (4,87). This result means that there is a statistically significant effect of the respondent variable (sum of the variables (X) of the electronic cost accounting system) in the dependent variable (government spending), in the research sample. As for the value of the determination coefficient (R<sup>2</sup>), its value was (0.822), which means that (the sum of the variables (X) of the electronic cost accounting system)

explains what percentage (82.2%) of the discrepancy in (government spending), and that (17.8%) Is an explanatory variation of factors that did not enter the regression model. Accordingly, these results provide sufficient support to accept the hypothesis of the multiple effect of the third major study which states (there is a significant effect of the sum of the variables (X) of the electronic cost accounting system in government spending).

Through Table (7), we note that the value of the fixed term ( $a = 0.820$ ) is statistically significant, as the calculated value of  $t$  was (3.077) and it is greater than the tabular  $t$  at the level of significance% 1 and the degree of freedom (87) and (2.35), but the value of the current slope ( $x_1, x_2, x_3, x_4$ ), reached ( $b = 0.119, 0.344, 0.012, 0.693$ ) respectively, and this is statistically significant because the calculated value of  $t$  is (6.274, 5.181, 4.217, 1.711) respectively greater than the tabular  $t$  of (2.35) at the significance level (0.01) and the degree of freedom (87).

In light of these results, it is clear that the electronic cost accounting system, together with its variables, has a significant and strong influence on government spending in the General Cement Company.

**Table 7:** Multiple effect the sum of (X) variables of the electronic cost accounting system in government spending

| Electronic cost accounting system | Government spending    |              |           |  |              |           |                 |
|-----------------------------------|------------------------|--------------|-----------|--|--------------|-----------|-----------------|
|                                   | Regression coefficient | Calculated t | Mortality | Determination Coefficient R <sup>2</sup> | Calculated F | Mortality | Decision        |
| Fixed limit                       | 0.820                  | 3.077        | 0.003     | 0.822                                    | 83.12        | 0.000     | There is effect |
| Flexibility                       | 0.119                  | 6.274        | 0.000     |  |              |           |                 |
| Convenience                       | 0.344                  | 5.181        | 0.000     |  |              |           |                 |
| Speed and accuracy                | 0.012                  | 4.217        | 0.005     |  |              |           |                 |
| Human and material constituents   | 0.693                  | 1.711        | 0.009     |  |              |           |                 |

\* The value ( $f$ ) of the table at a significant level 0.05 and the degrees of freedom (4.87 = 2.46)

\*\* The value ( $f$ ) of the table at a significant level 0.01 and the degrees of freedom (4.87 = 3.52)

\* Value ( $t$ ) tabular at a significant level 0.05 and degrees of freedom (87 = 1.66)

\*\* Value ( $t$ ) tabular at the level of 0.01 and degrees of freedom (87 = 2.35).



## **Conclusions and Recommendations**

### ***Conclusions***

1. There is a positive and moral correlation between the electronic cost accounting system and government spending.
2. There is a positive and moral impact of the electronic cost accounting system on government spending.
3. The presence of a positive multi-effect of the sum of the variables of the electronic cost accounting system combined in government spending.
4. The limited availability of computers and modern technologies in the company.
5. The lack of external training courses conducted by the company for its employees to develop their creative skills.
6. A company depends on experts from within companies for the education, training and development of workers.

### ***Recommendations***

In light of the results reached, the following recommendations can be taken:

1. Paying attention to the company's scientific and research preparations that are compatible with long-term strategies.
2. Providing a good and effective communication system and strengthening cooperation between the company's departments in setting and implementing strategic goals.
3. Attention to the external training courses conducted by the company for its employees to develop their creative skills.
4. Using experts from outside the company to educate, train and develop employees.
5. Providing sufficient modern computers and technologies in the company.



## REFERENCES

### Arabic References

- Abu Huwaidi, Nihad Ishak Abdel Salam, (2011), "The role of accounting information in rationalizing capital spending decisions: an applied study on companies listed on the Palestine Stock Exchange", this research provided a supplement to the requirements for obtaining a master's degree in accounting and finance.
- Al-Tikriti, Abdul Majeed Rashid, (1986), "Financial policy and its impact on prices in Iraq", Al-Rafidain Development Journal, Volume 8, No. 18.
- Al-Jadri, Adnan Hussein, and Abu Helou, Yaqoub Abdullah, (2009), "Methodological foundations and statistical uses in educational and humanities research", first edition, Ithraa for publication and distribution, Amman - Jordan.
- Al-Jabouri, Batoul Matar, and Al-Zamli, Doaa Muhammad, (2014), "The role of government spending in achieving economic stability in Iraq for the period (2003-2012)", Al-Qadisiyah Journal of Administrative and Economic Sciences, Volume 16, No. 1.
- Hamada, Rashad, (2010), "The effect of general control controls on electronic accounting information systems on increasing the reliability of accounting information: a field study." Damascus University Journal for Economic and Legal Sciences.
- Hanan, Radwan Helwa, (2009), "The entrance of accounting theory, the intellectual framework and practical applications", 2nd floor, Wael Publishing House, Amman, Jordan.
- Hafnawi, Muhammad Youssef, (2001), "Accounting Information Systems", Wael House for Printing, Publishing and Distribution, Jordan.
- Saad, Alaa Saeed Hussein, (2014), "Evaluating electronic accounting information systems in reducing the phenomenon of tax evasion from the point of view of accounting offices and tax departments", this study provided a supplement to the requirements for obtaining a master's degree in accounting and finance.
- Shaheen, Ali, (2011), "Factors affecting the efficiency and effectiveness of computerized accounting information systems in commercial banks operating in Palestine" The Islamic University, Gaza.



Shihab, Samira Fawzi, (2017), "The effect of government spending and taxes on the price index in Iraq for the period (1995-2010)", the Journal of Baghdad College for Economic Sciences University, No. 52.

Al-Qadhi, Ziad Abdel-Karim, Abu Zalatah, Muhammad Khalil, (2010), "Designing Administrative and Accounting Information Systems", 1st edition, Arab Society Library for Publishing and Distribution, Amman.

Qaoud, Adnan, (2007), "Study and evaluation of the electronic accounting information system", an applied study, the Islamic University.

Al-Alami, Hussam Ahmed Mohamed, (2015), "The role of computerized accounting information systems in the efficiency and effectiveness of external auditing: an applied study on auditing accounts operating in the southern governorates - Palestine", a thesis submitted to obtain a master's degree in accounting and finance from the Faculty of Commerce at the Islamic University Gaza.

Mohamed, Bin Azza, (2012), "Rationalization of public spending policy by following the discipline approach with goals: an evaluation study of public spending policy in Algeria during the period 1990/2009", a graduation thesis for a master's degree within the framework of the Doctoral School of Economic Sciences majoring in public finance management.

Al-Jadri, Adnan Hussein, and Abu Helou, Yaqoub Abdullah, (2009), "Methodological foundations and statistical uses in educational and humanities research", first edition, Ithraa for publication and distribution, Amman - Jordan.

Rashid, Dhafer Hussein, and Al-Mashhadani, Kamal Alwan Khalaf, (2016), "Statistics for Administrative and Accounting Specializations", First Edition, Al-Jazeera Office for Printing and Publishing, Baghdad - Iraq.

Melhem, Mahmoud Ibrahim Saeed, (2010), "An Analytical Study of the Relationship between Time Management and Staff Performance: Application to Public and Private Institutions in Qalqilya Governorate, Palestine", PhD thesis, Faculty of Commerce, Cairo University.

### **Foreign References**

Carrado, C. J., Bradforal D. Jordan ,(2002)," Fundamentals of Investment Valuation and management ", McGraw- Hill.



Hurt .R. L ,(2008) "Accounting Information Systems" , The McGraw- Hill.

Kovach, Kenneth A., & Cathcart, Jr., Charles E.(1999)." Human resource information system: Providing business with rapid data access". information exchange and strategic advantage Public Personnel management.

Krejcie , Robert V . , Morgan , Daryle W . , "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970 .

Laundon, K. C. & laudon, J.P. (2008)."Management Information systems managing the digital firm", 9<sup>th</sup> Ed .Upper saddle River .New Jersey: Pearson Education.

Michael H.Granof ,Government& Not-For-Proft ,(2007)," Accounting: Concepts& Practices", United States of America ,Fourth Edition.

Whitten .J .Bently. Barlow.V.,(1994) "Systems Analysis & Design Methods Purdue University" .West lafayeete ( Richard Irwin Inc).