



## The Impact of Electronic Commerce on Achieving the Competitive Advantage of Economic Units through the Strategy of Cost Leadership Study in Some Selected Companies in Iraq

 Zeyad Hashim ALSAQA

zyad\_hashim@uomosul.edu.iq

University of Mosul (Iraq)

Submitted:02/09/2022

Accepted:15/11/2022

Published:04/12/2022

### Abstract

The study is dealt with an important topic related to one of the developments that occurred in the modern business environment (which represents one of the strategies to achieve competitive advantage) due to its importance and its relationship to the accounting work. A set of areas has been identified through which work in the e-commerce environment can be used to reduce product costs in economic units, which can include reducing: industrial costs, marketing costs, administrative and financing costs. A set of accounting methods have also been identified that can contribute to achieving the objectives of the cost management strategy, mainly represented in the possibility of reducing the cost of products, which can contribute to achieving a competitive advantage for the economic unit. Value (VC), product life cycle (PLC), on-time production costing (JIT), cost reduction through target cost (TC).

The study is found that due to the many advantages that can be benefited from when working in the e-commerce environment, which can contribute to reducing product costs, as well as the possibility of benefiting from working in the information technology environment required by the e-commerce environment and the shift towards electronic accounting, we have the need to design a central database that contains all the data that contribute to the application of any method of cost management strategy, as well as securing positive relationships between the various methods in order to achieve the general goal of achieving a competitive advantage for the economic unit by reducing the cost of products to reduce their prices In the market.

The theoretical part was reinforced by an exploratory study in a selected sample of Iraqi companies that showed that there is a positive and important relationship between competitive advantage and the cost leadership strategy, and a significant impact of strategic management accounting methods in achieving the competitive advantage of companies operating in the e-commerce environment, and also the use of strategic management accounting methods leads to achieve the cost leadership strategy, the study recommends the necessity of integrating the methods of strategic management accounting, as this will lead to the realization of the cost leadership strategy for companies operating in the e-commerce environment.

**Keywords:** E-commerce, competitive advantage, cost leadership strategy.

**JEL Classification Codes:** L81 , L41, D23,D60.

## I. Introduction

In light of the many developments witnessed by the modern business environment and the continuous and successive developments that follow in the information technology environment, the economic units resorted to benefiting from this, especially in the field of conducting economic activity by making use of communication technologies in what was called the “e-commerce environment.”

The fact that economic units carry out their economic activities in the e-commerce environment can contribute to achieving many benefits by taking advantage of the advantages that are achieved in many areas, perhaps the most prominent of which is related to the possibility of reducing the costs of products of all kinds in order to achieve the lowest cost that can be achieved for the unit Economic competitive advantage through it in the markets in which it operates.

If the economic units are able to reduce the costs of products when they work in the e-commerce environment, this will contribute to achieving the competitive advantage by adopting modern accounting methods and applying them in the e-commerce environment, and then achieving a cost leadership strategy by identifying the integration relationships between the appropriate accounting methods to achieve a strategy Cost leadership in an e-commerce environment.

The accounting perspective to achieve the competitive advantage of economic units in the e-commerce environment

There is no doubt that the many advantages that can be achieved as a result of using information technologies in general and communication technologies in particular (primarily the Internet) have contributed to encouraging economic units to enter the digital environment through several entrances, including e-commerce.

Accordingly, many economic units have established websites for them on the Internet to take advantage of their advantages in achieving what they aspire to within the requirements of work in the modern business environment, and thus the economic units began practicing their various economic activities in the e-commerce environment.

The economic units have achieved many advantages as a result of working in the e-commerce environment, including:

1. Ease of access to global markets and dealing with a large number of economic units and customers anywhere in the world, while facilitating the means of communication between them and them.
2. E-commerce applications help economic units to produce products and provide services according to the specifications determined by customers themselves at a low cost, which provided them with an important competitive advantage.
3. E-commerce applications allow companies to use new business models, which also provide competitive advantages for the companies that use them.

4. E-commerce helped reduce the time required between the emergence of the idea and its commercial application, thanks to the improvement of communication techniques, coordination and collaborative work.
5. The low cost of communication has helped in the development and use of collaborative work tools such as electronic meetings, work from home, the ability to share information, and others.
6. Continuity of providing updated data and information with rapid access or access to it at any time requested.

Since accounting information systems represent major and official systems in economic units, any effects that occur in them must affect the accounting work, which requires that accounting information systems work on coordination, integration and exchange of data with all sub-systems of information in the economic unit in order to access the information that can be To be useful to decision makers.

Accordingly, the accounting work in the e-commerce environment requires the following:

1. The necessity of expanding the areas of designing accounting information systems to take into consideration the possibility of working with computer networks, including the Internet, which requires the need to open one or more sites for the concerned economic unit on the Internet and secure the communication process through it.
2. Providing technical means through which data can be stored and entered into computers, leading to facilitating the electronic exchange of data between the concerned economic unit and other economic units that are dealt with via the Internet, and in a manner that ensures the possibility of updating the stored data on a timely basis, through websites Economic unit online.
3. Taking into consideration the possibility of using electronic accounting software and the necessity of its integration with the software used by other economic units on the Internet.
4. Expanding the accounting disclosure, so that it takes into account the design of reports and financial statements in the form and language that enables them to be published on the Internet, as well as the need to contain the data on the operations carried out through electronic commerce.
5. The need to prepare a qualified accounting staff to carry out accounting work in the e-commerce environment, followed by the need to be familiar with all the means used within information technologies and how to operate the accounting information system that uses them.
6. The necessity of increasing the control procedures on data and information related to the business carried out by the economic unit via the Internet,

especially with regard to electronic commerce, due to the increased risks involved in carrying out such business, and this can be achieved in light of the set of standards set by (AICPA) and (CICA). ) necessary to confirm confidence in e-commerce operations, which relate to the following:

- a. Ensuring the existence of methods for practicing e-commerce activity and ensuring privacy, provided that they include full disclosure of the provided good or service, how to implement the process, and the procedures available to the economic unit regarding customer inquiries.
- b. Maintain effective control procedures on the completeness, objectivity and transparency of transactions, provided that they include assurances of executing electronic transactions in accordance with agreements with customers.
- c. Maintain effective procedures that ensure the protection and confidentiality of information.

The researcher believes that the design of accounting information systems in the e-commerce environment will require the following:

1. The shift towards electronic accounting work, and the design of electronic accounting information systems.
2. Processing accounting data according to what is called instant accounting.
3. Facilitating the electronic exchange of data inside and outside the economic unit, by taking advantage of the advantages of communication networks of various types (Intranet, Extranet, Internet) in performing the accounting work.
4. Designing accounting databases to ensure the existence of coordination and interdependence relations between the various departments and sections in recalling and processing accounting data.
5. Designing and using electronic internal control programs, especially with regard to immediate electronic control.
6. Preparing reports and financial statements in accordance with the requirements of electronic disclosure.

Considering that the competitive advantage represents one of the important strategies that economic units seek to achieve in order to ensure their survival and growth in light of the great competition between them. The most important of these areas is the field of electronic commerce due to the important field it represents within the recent developments that have taken place in the modern business environment.

Accordingly, the accounting role can be effective in achieving the objectives of the economic units operating in the e-commerce environment, especially in the possibility of achieving its competitive advantage, in which accounting information systems can

contribute through the use of the necessary accounting methods, foremost of which are those methods that help in achieving the advantage of reducing Cost through cost leadership strategy.

## **II. Areas of benefit from working in the e-commerce environment to achieve a cost leadership strategy for economic units**

Cost Leadership Strategy aims to achieve the lowest cost compared to competitors while maintaining an acceptable level of quality, by doing a strategic analysis of the costs of activities involved in the production process, which can contribute to achieving a competitive advantage for the economic unit in the market when The demand for the product is characterized by price elasticity, which encourages cost reduction to increase sales and achieve profits.

Thus, cost control represents a competitive dimension, the pursuit of which is a continuous concern for every decision-maker in the economic unit in order to gain a competitive advantage. The cost-reduction activity is not static or permanent. It requires continuous improvement, continuous research and more efficient methods of service delivery. (Bets and Lee, 2008: 317).

Since the modern business environment is characterized by continuous changes and developments, in addition to the fact that working in the e-commerce environment has contributed to increasing the intensity of competition between economic units in the local and international markets, it is required from the economic units when working in the e-commerce environment to constantly search for areas to reduce The cost of its products, which can contribute to achieving a competitive advantage in the open commercial markets.

The researcher believes that the areas of benefiting from work in the e-commerce environment to reduce product costs in economic units can include reducing: industrial costs, marketing costs, administrative and financing costs, and as follows:

### **1. Reducing industrial costs (production costs).**

It relates to the costs of: direct materials, direct wages, indirect industrial costs (the cost of other services), and it can be said that working in an e-commerce environment can lead to a reduction in industrial costs as follows:

- a. The cost of direct materials can be reduced through the contribution of e-commerce to obtaining the most appropriate prices with less effort, as e-commerce applications allow the possibility of obtaining the largest possible offers from other economic units and direct negotiation with them.
- b. The possibility of reducing the cost of direct wages with regard to the exclusion of some operations that do not need workers, and the effect of this is clear and significant in the case of e-commerce with electronic services that need few workers.

- c. Indirect industrial costs relate to industrial expenses that result in different products or the economic unit as a whole, such as: the cost of driving forces, deterioration and maintenance of machines, rent, lighting, insurance of machines .... Thus, indirect industrial costs can be reduced through the contribution of e-commerce. In reducing its various fields, as working in the e-commerce environment has contributed to reducing the need for buildings and related costs.

## 2. Reducing marketing costs.

Marketing costs relate to all costs incurred by the economic unit after the completion of the production process, which includes: the costs of studies, marketing research, advertising, promotion, distribution, transportation and other costs associated with marketing activity.

Some studies have proven that e-commerce can contribute to reducing marketing costs as follows: (Al-Obaidi et al., 2011: 15)

- a. Reducing the costs of advertising products, reducing the salaries, wages and bonuses of employees and workers in the advertising department, and reducing the cost of programs and training courses held in the advertising department.
- b. Reducing the stock of the economic unit, the salaries and wages of workers in the stores, reducing the costs of travel to the target markets, reducing the insurance expenses on the stores, the expenses of stationery, and the consumption of machines and equipment used in the stores.
- c. The economic unit seeks through the use of electronic commerce to reduce the salaries, wages and bonuses of employees and workers in the Marketing Research Department.

## 3. Reducing administrative and financial costs.

It is the set of expenses related to services provided to all departments of the economic unit, such as: stationery and publications, wages of workers in the administrative and financial departments, auditors' fees, bank interest and commissions, deterioration of buildings and furniture of the administration and insurance on them.

It is noted that many of these services can be reduced in cost in the e-commerce environment, especially with regard to stationery and publications and the wages of workers in the administrative departments, whose number may be reduced, in addition to the fact that e-commerce reduces the time between paying money and obtaining products and services, which represents another positive in reducing the cost of investing money.

One study indicates that e-commerce plays a prominent role in reducing these costs through improving the flow of information and increasing business coordination, as well as lowering the costs of searching for information related to potential buyers and



sellers in the market, and that reducing administrative costs of purchases may reach 85%, which leads Ultimate (<http://zinano.blogspot.com>).

The researcher focuses in this field on the fact that there are some new costs that arise when working in the e-commerce environment, especially with regard to:

- a. The costs of purchasing computer hardware and software necessary for it, and their maintenance and depreciation.
- b. Internet subscription costs, bearing in mind that working in an e-commerce environment contributes to reducing telecommunications costs, as the Internet is much cheaper than Value Added Networks.
- c. The costs of creating, maintaining and updating websites.

### **III. Integration of appropriate accounting methods to achieve a cost leadership strategy in an e-commerce environment**

There are many appropriate accounting methods to achieve the cost leadership strategy, but working in the e-commerce environment requires integration among them in light of the high and multiple technical capabilities that economic units can provide when practicing their activities and transforming them towards electronic business.

The most appropriate accounting methods to achieve the cost leadership strategy in the e-commerce environment can be addressed as follows:

#### **1. Cost reduction through activity-based costing (ABC).**

Activity-Based Costing (ABC) system refers to the possibility of calculating costs according to a set of activities that the product goes through, which leads to help finding an opportunity to reduce costs, by showing the activities that do not add value to be excluded.

The ABC activity-based costing system helps in determining the opportunity available to management to reduce costs with accuracy and clarity, as it separately shows the processes and stages that the product goes through and the activities that contribute to its formation, and that reducing the cost of any activity or stopping the extra activities and canceling their cost will lead to a cost reduction. The complete product, and this is the goal and reason for creating the system, especially in units with high competition (Al-Tikriti, 2007: 164), given the large relative weight of the amount of costs compared to the total cost of each product.

#### **2. Cost reduction through the value chain (VC).**

The value chain analysis method is one of the methods on which strategic analysis is based in reducing costs, through this method analyzing activities and evaluating their ability to add value, providing information that helps in detecting deficiencies in its performance, redesigning the product or changing the materials used or Introducing

changes in production methods, or correcting the course of activities, and then reformulating and reshaping the value chain (Al-Zaitari, 2010: 66)

The value chain is a method or method to reduce costs through which costs are calculated on the basis of the main and subsidiary activities through the restructuring of activities in order to maximize the value of those activities, starting from the process of purchasing raw materials and ending with the delivery of the product to the consumer. The amount represented by the cost of each activity compared to the total cost, and therefore the focus is on activities with high cost compared to other activities, and therefore all ways are sought that lead to reducing that cost and in a way that leads to maintaining the quality of the products or services provided, and to ensure that they achieve the value chain. And competing with other units, and all of this requires experience and a broad understanding of the activities whose costs are to be reduced. In addition, it requires more information to consider the status of the economic unit and what its internal and external relations are. It also requires that the economic unit compare the costs of its activities with the costs of the activities of similar units for the purpose of achieving competitive advantage (Youssef, 2009: 63), and knowing its competitive position in commercial markets, which can affect the nature of the trade Administrative, productivity and financial decisions accompanying the results obtained through it.

### **3. Cost reduction through product life cycle (PLC).**

The Product Life Cycle (PLC) method is one of the most important strategic management accounting methods that help reduce costs, as it considers that product costs consist of three basic elements from the point of view of the Japanese Institute of Certified Public Accountants, which are: Initial costs (such as research and development costs planning, design), normal costs (such as industrial costs, sales activities costs) and final costs (such as maintenance, repair, and disposal costs), and that cost control in the early stages of the product phase will lead to real cost reduction without compromising product quality, Thus, this method is one of the important methods in supporting the cost leadership strategy (Amin, 2012: 131).

It must be taken into consideration that the length of the product life cycle affects the costs of the product, so controlling the length of the product life cycle increases or decreases the costs of the product, which means that there is an inverse relationship between the length of the product life cycle and the costs of the product life cycle.

### **4. Cost Reduction through Just-in-Time Production (JIT) Costing System**

The use of electronic commerce under the system of production costs on time (JIT) works to improve performance and that the applied economic unit has a competitive advantage, and it also leads to reducing costs, improving productivity and improving quality and leads to reducing time periods starting from receiving the customer's order



and ending with delivery The areas in which electronic commerce is used under the (JIT) system to reduce costs are as follows: (Al-Maadidi and Al-Hadidi, 2009: 30)

- a. Reducing costs related to inventory and production.
- b. Reducing costs related to suppliers or suppliers.
- c. Reducing costs related to activities that do not add value to customers and consumers (to achieve consumer satisfaction).
- d. Reducing time-related costs in terms of time period.

### 5. Cost reduction through target cost (TC).

Target costing is defined as: one of the strategic tools that reduce the costs of products during their life cycle (Brausch, 1994:45, and it aims to reduce the life cycle costs of a high-quality product, which meets the needs of customers by examining all the ideas that can Reducing those costs in the planning and development stages (kato, 1993: 33).

(Fitzgerald.1997: 64) points out that the target cost system is considered one of the most important and best innovative cost management systems, because it is supposed to work on reducing costs and developing the productive and profitable products for the satisfied customers. of sales and profits.

Through the foregoing, the areas and advantages of integrating the appropriate accounting methods to achieve the cost leadership strategy in the e-commerce environment can be clarified as follows:

1. One of the advantages of the Internet is the ability to link a specific activity with other activities and make the data of a particular activity widely available inside and outside the economic unit, which facilitates the collection and exchange of all data regarding the application of any method of cost leadership strategy.
2. The product life cycle is the main axis in the application of most cost strategy methods, which requires the need to design a central database that contains all data related to the product life cycle to be exchanged and coordinated according to the need of any cost strategy method.
3. The costs of the full life cycle of the product can be reduced by directing efforts towards the activities of the early stages of the life cycle and before the beginning of the production stage. Therefore, the best approach is to analyze the costs of the product life cycle at the same time as the application of the target costing system.
4. The use of the value chain when applying the full life cycle cost method of the product, works to reduce costs during the stages of the product life cycle by excluding activities that do not add value, which leads to shortening the life cycle of the product and thus reducing the cost of the product.

5. The activity-based costing system can be considered one of the most important strategic cost management tools in integration with the product life cycle method, as it aims to: (<http://walidsamir7.blogspot.com>)

- a. Determine the cost of materials used to perform basic activities during the product life cycle.
- b. Evaluate the efficiency and effectiveness of those activities (performance measures).
- c. Evaluate new activities to develop and improve their performance in the future (investment management).
- d. Achieving the previous three objectives in an environment characterized by technological changes.

6. In order to achieve integration between the product life cycle method and the activity-based cost system, the activities must be classified according to the product life cycle, and this is followed by linking the costs of these activities with the different stages of the life cycle. This tabulation links the activities with the period that represents a certain stage when the outputs of the activity are utilized, and therefore it can be considered that the achievement of benefits in subsequent periods in the life cycle is a kind of interlocking relationships between the activities that have been classified according to the life cycle of the product.

7. The integration between: the value chain and the production cost system on time can lead to contributing to achieving the objectives of the costing system on the basis of activities, as those unnecessary activities that can be dispensed with when working in the e-commerce environment are excluded, especially with regard to With research and development costs, purchase and sale costs and inventory.

#### IV. METHODOLOGY

This part aims to enhance the theoretical study with a field study through which it is possible to identify the impact of electronic commerce in achieving the competitive advantage of economic units through the strategy of cost leadership in the Iraqi companies selected for the study, by clarifying the study population and its sample and how to analyze the data obtained to reach The results set using a number of statistical methods necessary to test the hypotheses of the study.

Therefore, this part deals with the analysis of the results of the field study in light of what was addressed in the theoretical part to verify the main hypothesis of the study: (electronic commerce contributes to achieving the competitive advantage of economic units through the cost leadership strategy), which is tested through two sub-hypotheses:

1. Competitive advantage can be achieved through cost leadership strategy.
2. Strategic management accounting methods contribute to achieving competitive advantage.

## 1. Method and Source of Data Collection

The primary data were sourced from the respondents understudied as firsthand data. The method used in collecting the data was the use of questionnaire which was designed in Likert Scaling Format containing the relevant questions necessary to elicit responses from the respondents.

## 2. Method of Data Analyses

The analysis of data was structures in accordance with the demand of the specific research questions and study hypotheses. Descriptive statistic of frequencies, percentages, and means were used whereas, the Pearson correlation coefficient was used to determine the relationship between the variables. Multiple Linear Regression model was used to test the hypotheses. All the computation was done using statistical packages for social science (SPSS version 21.0). The regression model was employed to test the hypothesis in order to measure the weight and relationship that exists between the dependent and independent variables.

## 3. Study community

The study population consists of a group of Iraqi companies that work in the e-commerce environment, and then a group of (18) companies were selected that have great activities in the field of electronic commerce.

## 4. Method and source of data collection

Then the questionnaire forms were distributed to the study sample to include individuals who work in the companies that were selected, numbering (80), of which (58) were retrieved and approved for the purposes of the study, which represents a percentage (72.5%), which is an acceptable percentage for scientific research purposes.

The primary data was obtained from the respondents who were examined as direct data. The method used for data collection was the use of a questionnaire which was designed in Likert scale format containing relevant questions needed to elicit responses from respondents.

## 5. Data analysis method

The data analysis was structures according to the order of the specific research questions and research hypotheses. Descriptive statistics were used for frequencies, percentages, and means, while Pearson's correlation coefficient was used to determine the relationship between variables. A multiple linear regression model was used to test the hypotheses. All calculations were performed using the Statistical Package for the Social Sciences (SPSS version 21.0). A regression model was used to test the hypothesis in order to measure the weight and the relationship that exists between the dependent and independent variables.

## V. Data presentation, analysis and interpretation.

### 1. Data Presentation

This section is based on data presentation and interpretation. The data collected from the survey were presented in frequency distribution tables as shown in the various tables below. The first section shows the demographic data of the respondents followed by the statement questions.

The following is a review and analysis of the most important characteristics of the study sample that are relied upon for the purposes of analysis:

#### 1.1. Educational Qualification.

Table 1. Educational qualification

Item	Frequency	Percentage (%)
Higher Diploma	8	13.79
BA	36	62.07
Technical Institute Diploma	14	24.14
Total	58	100

#### 1.2. Scientific specialization.

Table 2. Scientific specialization

Item	Frequency	Percentage (%)
Accounting	33	56.89
Administration	18	31.04
other	7	12.07
Total	58	100

#### 1.3. Years of work experience.

Table 3. Years of work experience

Item	Frequency	Percentage (%)
Less 10 years	17	29.31
10-20yrs.	19	32.76
Above 20 years.	22	37.93
Total	58	100

#### 1.4. Administrative position.

**Table 4. Administrative position**

Item	Frequency	Percentage (%)
Division Manager	11	18.97
Department official	14	24.14
accountant	33	56.89
Total	58	100

It is noted from the above tables that it is possible to rely on the study sample in terms of: academic qualification, scientific specialization, number of years of experience in accounting work, and administrative position, through:

1. The percentage of educational qualifications for holders of a university bachelor's degree was 62.07.
2. The percentage of scientific specialization in accounting was 56.89.
3. The percentage of those who have more than 20 years of experience in accounting work is 37.93.
4. The percentage of accountants within the administrative position was 56.89.

## 2. Analysis and interpretation.

This part relates to analyzing the answers of the study sample, which leads to testing the hypothesis of the study, by analyzing the answers of the study sample about the possibility of achieving competitive advantage through the cost leadership strategy, as well as determining the importance and role of some strategic management accounting methods in contributing to cost reduction, which leads to the verification of the study's hypotheses. and tested.

### 2.1 Answers of the study sample about Achieving competitive advantage through cost leadership strategy.

**Table 5. Perception of respondents of Achieving competitive advantage through cost leadership strategy.**

S/N	Statement	Response				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	Competitive advantage can be achieved by reducing industrial costs (production costs).	20 34.48	15 25.87	10 17.24	7 12.07	6 10.35

2.	Competitive advantage can be achieved by reducing marketing costs.	16 27.59	24 41.38	9 15.52	5 8.62	4 6.90
3.	Competitive advantage can be achieved by reducing administrative and financial costs.	14 24.14	20 34.48	10 17.24	8 13.80	6 10.35
4.	Costs related to inventory and production can be reduced.	8 13.79	21 36.21	14 24.18	8 13.80	7 12.07
5.	Costs related to suppliers or suppliers can be reduced.	10 17.24	18 31.03	12 20.69	9 15.52	9 15.52
6.	Costs related to activities that do not add value to customers and consumers (to achieve consumer satisfaction) can be reduced.	18 31.03	22 37.93	12 20.69	4 6.90	2 3.45
7.	Time related costs can be reduced in terms of time period.	17 29.31	18 31.03	10 17.24	7 12.07	6 10.34

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

**Table 6: Arithmetic mean, percentage and standard deviation**

arithmetic mean	percentage	standard deviation
4.329	86.58%	.8611

Through Table (6), it is noted that the arithmetic mean of the answers of the study sample members was high (4.329), which constituted (86.58%) of the scale area\*, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and ( to a very large extent).

Since the arithmetic average (4.329) is more than (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that (competitive advantage can be achieved through cost leadership strategy), and since It means acceptance of the first sub-hypothesis within the main hypothesis.



## 2.2 Answers of the study sample about the strategic management accounting methods to achieve competitive advantage.

**Table7. : Perception of respondents with about the strategic management accounting methods to achieve competitive advantage.**

S/N	Statement	Respondents				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	Cost can be reduced by Activity Based Costing (ABC).	22 37.93	12 20.69	10 17.24	10 17.24	4 6.9
2.	The cost can be reduced through the value chain (VC).	24 41.38	16 27.59	9 15.52	9 15.52	0 0
3.	The cost can be reduced through the product life cycle (PLC).	16 27.59	10 17.24	16 27.59	9 15.52	7 12.07
4.	Cost can be reduced through just-in-time (JIT) costing system	17 29.31	17 29.31	12 20.69	8 13.80	4 6.9
5.	The cost can be reduced through target costing (TC).	21 36.21	12 20.69	10 17.24	8 13.80	7 12.07
6.	The use of the value chain when applying the full life cycle cost method to the product, reduces costs during the stages of the product life cycle by excluding activities that do not add value, which leads to a shortening of the product life cycle. product thus reducing the cost of the product.	22 37.93	12 20.69	17 29.31	7 12.07	0 0
7.	The costs of the full life cycle of a product can be reduced by directing efforts towards the activities of the early stages of the life cycle and before the beginning of the production phase. Therefore, the best approach is to analyze product life cycle costs at the same time as applying the target cost system	24 41.38	16 27.59	12 20.69	4 6.9	2 3.45
8.	Activity-based costing can be considered as one of the most important tools of strategic cost management in combination with the product life cycle method, where the cost of materials used to perform basic activities during the product life cycle is determined.	24 41.38	17 29.31	11 18.97	4 6.9	2 3.45
9.	Integration between: the value chain and the production cost system on time can contribute to the achievement of the objectives of the costing system based on	22 37.93	12 20.69	10 17.24	8 13.80	2 3.45

activities, such as those unnecessary activities that can be dispensed with when working in e-commerce environment is excluded, especially with regard to research and development costs and costs of buying, selling and inventory.					
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--	--

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

**Table 8: Arithmetic mean, percentage and standard deviation**

arithmetic mean	percentage	standard deviation
4.115	82.39%	.8173

Through Table (8), it is noted that the arithmetic mean of the answers of the study sample members was high (4.115), which constituted (82.39%) of the scale area, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and ( to a very large extent).

Since the arithmetic average (4.115) is close to (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that (strategic management accounting methods contribute to achieving competitive advantage), which means accepting the second sub-hypothesis within the main hypothesis.

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

**Table 9: Arithmetic mean, percentage and standard deviation**

arithmetic mean	percentage	standard deviation
4.063	81.26%	.8132

Through Table (9), it is noted that the arithmetic mean of the answers of the study sample members was high (4.063), which constituted (81.26%) of the scale area, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and ( to a very large extent).

Since the arithmetic average (4.063) is great than (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that (strategic management accounting methods contribute to achieving competitive advantage), which means accepting the second sub-hypothesis within the main hypothesis.

### 3. Analyze data and test the main hypothesis.

In this section, the main research hypothesis is tested using multiple linear regression analysis at 1%, and a significant level of 5%.

Hypotheses:

Hypothesis I:

Ho: There is no statistically significant relationship between competitive advantage and cost reduction strategy in the selected companies.

**Table 10 : Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.843 <sup>a</sup>	.050	.039	.821003

a. Predictors: (Constant), competitive advantage

The results in table.10 above reveal that there is a strong relationship at R (0. 843) between competitive advantage and cost reduction strategy in the selected companies.

The coefficient of determination,  $R^2 = 0.050$ , implies that the explanatory variable (competitive advantage) account for 5% of the variation in the dependent variable (cost reduction strategy).

**Table 11. ANOVA<sup>a</sup>**

Model	S.S	df	Mean Square	F	Sig.
Regression	3544.448	19	180.610	657.362	0.000
Residual	3.561	11	0.273		
Total	3548.009	30			

a. Dependent Variable: cost reduction strategy

b. Predictors: (Constant), competitive advantage

The results shown in Table (11) indicate that the explanatory power of this model was very high according to the value of  $R^2$  (adj.), which indicates that the independent variable contributed to the interpretation of the dependent variable, which reinforces The results of the study reached, because the statistically speaking, the competitive advantage is an important indicator of cost reduction strategy.

Hypothesis 2:

Ho: There is no statistically significant relationship between strategic management accounting methods and competitive advantage in the selected companies.

**Table 10 : Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819 <sup>a</sup>	.050	.038	.819665

a. Predictors: (Constant), competitive advantage

The results in table.10 above reveal that there is a strong relationship at R (0. 819) between competitive advantage and strategic management accounting methods in the selected companies.

The coefficient of determination,  $R^2 = 0.050$ , implies that the explanatory variable (competitive advantage) account for 5% of the variation in the dependent variable (strategic management accounting methods).

**Table 11. ANOVA<sup>a</sup>**

Model	S.S	df	Mean Square	F	Sig.
Regression	3623.349	18	184.774	648.298	0.000
Residual	3.761	13	0.269		
Total	3627.11	31			

a. Dependent Variable: strategic management accounting methods

b. Predictors: (Constant), competitive advantage

The results shown in Table (11) indicate that the explanatory power of this model was very high according to the value of  $R^2$  (adj.), which indicates that the independent variable contributed to the interpretation of the dependent variable, which reinforces The results of the study reached, because the statistically speaking, the competitive advantage is an important indicator of strategic management accounting methods.

#### 4. Summary of Findings

After the analyses of the data collected as well the review of relevant literatures, the summary of findings of this study revealed that:

1. There is a positive and important relationship between competitive advantage and cost leadership strategy.
2. There is a significant impact of strategic management accounting methods in achieving the competitive advantage of companies operating in the e-commerce environment.
3. The use of strategic management accounting methods leads to the realization of the cost leadership strategy.

4. The necessity of integrating the methods of strategic management accounting, as this will lead to the realization of the cost leadership strategy for companies operating in the e-commerce environment.

## VI. Conclusions

1. Since accounting information systems represent major and official systems in economic units, any effects that occur in them will affect the accounting work, which requires that accounting information systems work on coordination, integration and exchange of data with all information sub-systems in the economic unit to access information that can be useful to decision makers.
2. The accounting role can be effective in achieving the objectives of the economic units that operate in the e-commerce environment, especially in the possibility of achieving its competitive advantage, in which accounting information systems can contribute through the use of the necessary accounting methods, foremost among which are those methods that help in achieving an advantage. Cost reduction through cost leadership strategy.
3. Since the modern business environment is characterized by continuous changes and developments, as well as the fact that working in the e-commerce environment has contributed to increasing the intensity of competition between economic units in the local and international markets, it is required from the economic units when working in the e-commerce environment to continuously search for Areas of reducing the cost of its products, which can contribute to achieving a competitive advantage in the open commercial markets.
4. The areas of benefiting from work in the e-commerce environment to reduce product costs in economic units can include reducing: industrial costs, marketing costs, administrative and financing costs.
5. There are many accounting methods that can contribute to achieving the objectives of the cost management strategy, mainly the possibility of reducing the cost of products, which can contribute to achieving a competitive advantage for the economic unit that uses these methods.
6. Given the many advantages that can be benefited from when working in the e-commerce environment, which can contribute to reducing product costs, as well as the possibility of benefiting from working in the information technology environment required by the e-commerce environment and shifting towards electronic accounting, we have the need to design a central database It contains all the data that contribute to the application of any method of cost management strategy, as well as securing the positive relationships between the various methods in order to achieve the general goal of achieving a competitive advantage for the economic unit by reducing the cost of products to reduce their prices in the market.

### Referrals and references:

- Al-Maadidi, Mona Salem Hussein and Hisham Omar Al-Hadidi (2009), The use of electronic commerce in supporting the application of the JIT philosophy and its role in reducing costs, Journal of Baghdad College of Economic Sciences, No. 19.
- Al-Obaidi, Ali Qassem Hasan, Jassim Idan Barak Al-Mamouri and Jalil Kazem Madloul Al-Ardhi (2011), The Impact of Using Electronic Commerce in Reducing Marketing Costs - An Applied Study in Zain Communications Company, Babel Journal for Human Sciences, Volume 19, No. 1.
- Al-Tikriti, Ismail Yahya (2007), Advanced Cost Accounting - Contemporary Issues, Hamed Publishing and Distribution House, Jordan.
- Al-Zaitari, Adel Abdul-Ghani Qaid (2010), Using Strategic Analysis Methods for the Purpose of Reducing Costs - An Applied Theoretical Study on Yemeni Industrial Establishments, PhD thesis in Accounting, Faculty of Commerce, Assiut University, A.M.
- Amin, Sakar Dhahir Omar (2012), The Role of Strategic Accounting in Enhancing Competitiveness - An exploratory study in a selected group of Iraqi companies, PhD thesis in Accounting, College of Administration and Economics, University of Mosul.
- Brausch J. (1994), Target Costing for Profit Enhancement, Management Accounting , Vol.76, No.5, Nov.
- Fitzgerald, K., (1997). Cost tops all Design Concerns, Purchasing, Vol.122, US, No.5, Apr3.
- <http://walidsamir7.blogspot.com/2012/12/blog-post-15.html>.
- [http://zinano.blogspot.com/2010/09/blog-post\\_511.html](http://zinano.blogspot.com/2010/09/blog-post_511.html)
- Kato Y. (1993), Target Costing Support System: Lesson from Leading Japanese Companies, Management Accounting Research, Japan, Vol.4, No.1, Mar.
- Robert, Bates and David, Lee (2008), Strategic Management - Building a Competitive Advantage, translated by Abdul Hakam Al-Khuzamy, Dar Al-Fajr for Publishing and Distribution.
- Youssef, Zainab Jabbar (2009), Managing and Reducing Costs by Using the Value Chain - A Case Study in the General Company for Construction Industries, Al-Taqani Journal, Vol. 22, No. 5, Technical Education Authority.