



The Role of Managerial Accounting Modern Tools to Improve Profitability in Jordanian Industrial Companies – A Field Study

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ABSTRACT

The study aimed to identify on the role of managerial accounting modern tools to improve the profitability in Jordanian industrial companies. The study followed the descriptive and analytical approach in collecting data. The study population represented from the employees of the financial departments in the Jordanian industrial companies, the questionnaire was a study tool, 128 were distributed and 116 were retrieved (90%) in the random sampling method. The study found several important results: There is a role of the managerial accounting modern to improve the profitability in the Jordanian industrial companies, which is represented in activity-based costing, target costing, Kaizen costing, re-engineering value, lean production, and balanced scorecard. The study also recommended that it is necessary to follow the managerial accounting modern methods, such as the implementation activity-based costing (ABC), to reduce costs, and work on the re-engineering value and Kaizen costing to achieve greater customer satisfaction, reduce waste and reduce activities that do not add value. As well as training staff and giving them courses in modern managerial accounting.

1. INTRODUCTION

The companies need many information from different sources including marketing management, production management, and human resources addition managerial accounting. At the planning stage for a new product, the company needs information about customer tastes and information is obtained from the marketing department. The Human Resources Department also provides information on the company's need for workers (Abu Nassar, 2014). But the financial management provides information on product costs with the help of managerial accounting and cost accounting, to appear the cost's the unit of production. therefore, accountants realized the need of the company information, especially financial information, which made accountants divide accounting into branches, including accounting management. There has also been a need to devise modern methods of managerial accounting to achieve accurate product cost and pricing to reach a profit target, which is what the present study seeks to investigate from it.

The present study examines the role of managerial accounting modern tools to improve the profitability in Jordanian industrial companies, which were created to reach a precise cost and a reasonable selling price to achieve the target profit in the Jordanian industrial companies. Accordingly, the problem of the study was formulated by asking whether there is a role of managerial accounting modern tools to improve the profitability in Jordanian industrial companies. The study aimed to identify on the role of managerial accounting modern tools to improve the profitability in Jordanian industrial companies. To achieve this goal, the study sought to achieve the following sub-goals, which represent the of the managerial accounting tools. These objectives are:

1. Search for the role of activity-based costing (ABC) system to improve the profitability of Jordanian industrial companies.
2. Search for the role of target costing (TC) system to improve the profitability of Jordanian industrial companies.
3. Search for the role of kaizen costing (KC) method to improve the profitability of Jordanian industrial companies.
4. Search for the role of re-engineering value (REV) method to improve the profitability of Jordanian industrial companies.
5. Search for the role of lean production method to improve the profitability of Jordanian industrial companies.
6. Search for the role of balanced scorecard (BSC) method to improve the profitability of Jordanian industrial companies.

The information provided by the managerial accounting has the cost represent in the salaries of employees, the expenditures of equipment, devices, the programs used, and the studies prepared for the development of work, therefore the origin expects to receive higher benefits from the cost of access to information.

Therefore, the importance of the current study stems from it is looking at the role of the managerial accounting modern tools to improve the profitability of Jordanian industrial companies, also this sector is very important in the gross national product.

The previous studies have been subjected to some of the tools of managerial accounting and impact it on many variables. But the current study has used six tools as an independent variables and profitability as a dependent variable on accounting management tools in Jordanian industrial companies.

2. LITERATURE REVIEW

Al-bawab study, (2017), entitled "Use Balanced Scorecard (BSC) Perspectives in The Service Sector: A Case Study on The Jordanian Private Universities". This study aimed to identify on how to use Balanced Scorecard (BSC) perspectives in the service sector in general and in the Jordanian private universities. The study was designed questionnaire to achieve the study objective, there is using of the Balanced Scorecard (BSC) perspectives in the Jordanian private universities partially, the researcher recommends that the universities must use all the perspectives of Balanced Scorecard (BSC) in the work as well as follow-up students after graduation in order to give the Promotional League. and the university must work feedback about the services provided to the students.

Al-bawab and Al-Rawashdeh studied (2017), entitled "The Impact of The Activity Based Costing System (A.B.C.) in The Pricing of Services Banks in The Jordanian commercial Banks" A Field Study. This study aims to identify the impact of the application of Activity Based Costing (A.B.C.) in the pricing of banking services in the Jordanian commercial banks, and to achieve the objectives of this study a questionnaire was designed and analyzed by (SPSS) program, was used descriptive statistics mean, standard deviation and percentages, as well as use the T-test to test the hypothesis of the study. One of the most important results of the study that the (A.B.C.) system helps in pricing and in compute cost of the banks services. The study recommended that it must update the hardware and software to suit the (A.B.C.) system, as well as the need to train workers in the Jordanian commercial banks in supervisory positions for the application and implementation of the (A.B.C.) system to help in operations costing and pricing of banking services.

Jarerah study, (2014), entitled the extent of the evaluation of performance by using the dimensions of the balance scorecard of the shareholding companies for food industries in Jordan – a field study. The nutritional industries sector in Jordan has grown and developed in recent years due to the large investments in this field and the use of modern industrial techniques, in addition to paying a great deal of attention to the safety and quality which are the two cornerstones for food manufacture and production. So, this study has been conducted to reveal that the evaluation of performance by using Balanced Score card (BSC) in shareholding companies for food industries in Jordan with its four perspectives (financial perspective, customer perspective, internal business process perspective, innovation and learning perspective) has become necessary in these companies for integrating in a perfect strategic planning to maintain the present global competitive ability. To examine the extent of the evaluation of performance by using the dimensions of balanced score card in these companies, a questionnaire of 24 items has been designed and distributed on four hypotheses each one of them handled one perspective of the four perspectives of BSC. The study has concluded that the shareholding companies for food industries in Jordan use financial and nonfinancial performance measures to evaluate their performance and these measures are related to financial perspective, customer perspective, internal business process perspective, innovation and learning perspective with referring to that the perfect use of this card has been amorphous.

Zu'rob, study (2012), entitled "The importance of using Target Cost at improving the efficiency of banking services pricing: An Empirical Study on the banks in the Gaza Strip". The study aimed to show of the importance of using targeted cost approach at improving the efficiency of banking service pricing, and whether there is a possibility for the application of this approach in banks in the Gaza Strip, and to achieve the goal of the study was the use of deductive approach through a questionnaire designed to collect and analyze data statistically. The study concluded that many of the results was the most important: it can be applied to the target in the banks cost approach with the presence of some obstacles, including: lack of effective my costs system in the bank, as the study showed that the bank management is well aware of the benefits diverse achieved through the application of this approach, The study recommended a number of recommendations, including: the need to work hard to move towards the implementation of the target cost approach.

Al D'ari study 2007 entitled "Activity – Based Costing& Customer profitability". This study aimed to apply the costing system (A.B.C.) in the Yemeni banks as well as the possibility of using this system to determine customer profitability and determining the features of this system. The study found that the application of the system of (ABC) in Saba Islamic Bank help in customer profitability analysis of the bank and make able to manage the relationship

with its customers more efficiently, and raise marketing Bank and competitiveness, as the application of this system has helped to raise the bank's efficiency in resources management and its uses. The study recommended the need for the banks' processing of the basic requirements for the application of this system such as the preparation of organizational structures, and administrative regulations, the manner in which helps to divide the main activities and to facilitate sub-application of this system, in addition to the need to develop information systems.

3. METHODOLOGY

3.1 Variables

The study variables were composed of independent variables and a dependent variable as follows:

Independent variables: They represent the tools of accounting managerial modern: Activity based costing system, target costing, kaizen costing method, re-engineering value method, lean production, and balanced scorecard.

Dependent variable: It represents the profitability of the Jordanian industrial companies.

3.2 Hypotheses

The main hypothesis of the study was:

H0: There isn't a role for the managerial accounting modern tools to improve the profitability of Jordanian industrial companies.

To test the main hypothesis, the following sub-assumptions have been constructed:

H01: There isn't a role for the activity-based costing (ABC) system to improve the profitability of Jordanian industrial companies.

H02: There isn't a role for the target costing (TC) system to improve the profitability of Jordanian industrial companies.

H03: There isn't a role for the kaizen costing method to improve the profitability of Jordanian industrial companies.

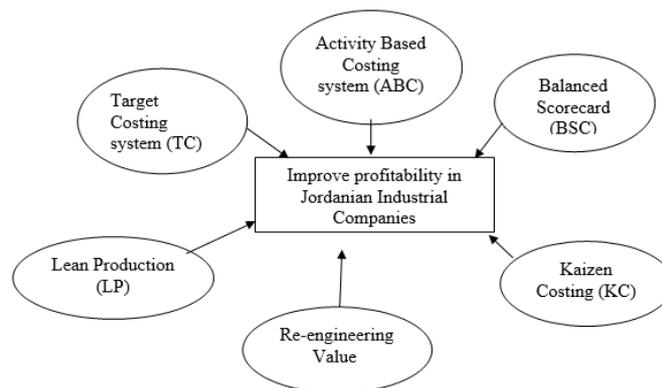
H04: There isn't a role for the re-engineering value (REV) method to improve the profitability of Jordanian industrial companies.

H05: There isn't a role for the lean production (LP) method to improve the profitability of Jordanian industrial companies.

H06: There isn't a role for the balanced scorecard to improve the profitability of Jordanian industrial companies.

3.3 Proposed Model

The study model represents from independent and dependent variables as follows: (Source: by researcher).



3.4. Theoretical Framework

3.4.1 The concept of managerial accounting:

It is a process of collecting and processing financial and non-financial data, according to specific methods and rules in order to access information that serves the different departments in the company to achieve the objectives and executive the work. (Abu Nassar, 2014).

3.4.2 Objectives of managerial accounting

Managerial accounting provides useful information to help the management in carrying out the tasks to be implemented. Five main objectives of managerial accounting were identified: (Abu Nassar, 2014):

1. Provide management with the information it needs for decision taking and planning.
2. Assist management in directing and monitoring operational activities.

3. Motivate employees and managers to achieve company goals.
4. Measuring the performance and completion of the departments and its different employees.
5. Assess the competitive position of the company and work with the other departments to maintain a good competitive position for the long term.

3.4.3 Accounting Management Tools

The present study studied six tools for managerial accounting modern:

1. Activity Based Costing (ABC): developed to provide more-accurate ways of assigning the costs of indirect and support resources as activities, business processes, products, services, and customers. The goal is to measure and then price out all the resources used for activities that support the production and delivery of products and services to customers. (Kaplan, 1998). The (ABC) system is called a two-stage system: first, determining the activities required by the production and then determining the cost of each activity. Second, the distribution of costs of activities on products using the cost drive of each activity.
2. Target Costing (TC): It is a system that collects the indirect industrial costs for each the activities of the establishment in the cost complexes, and then is distributed on the final product under the driving cost.
3. Kaizen Costing (KC): It's a philosophy based on gradual, small, simple and continuous improvements in products, services and processes, with the aim of reducing costs, reducing waste, waste of resources and increasing productivity.
4. Reengineering Value: It's a redesign of the strategic processes to add value and redesign of the systems, policies and organizational structures that support operations to improve the work flow and productivity of the organization.
5. Lean Production (LP): It's a system that uses a set of techniques and tools that focus on eliminating all forms of waste and loss. And deleting the activities that do not add value to the final product through the effective use of available resources, and achieve the maximum possible output using the least possible inputs and the emphasis on the cost Low quality, appropriate flexibility and quick delivery of the finished product.
6. Balanced Scorecard: (BSC): The Balance Scorecard translates mission and strategy into objectives and measures, organized into four perspectives: financial, customer, internal business process, and learning and growth. (Kaplan and Atkinson, 1998). Gering and Keith identified the (BSC) as a tool used to transport and deliver strategy of a company to the units and administrative levels to measure the effect on those units, and also Their use so as to ensure the achievement of targeted results, including support from the strength of the facility and its competitive position by providing a tool for the implementation of the strategy and accountability for the targeted results. (Gering and Keith, 2000).

4. DATA ANALYSIS AND RESULTS

4.1 The population and sample of the study:

The study population consisted of employees in the financial departments at the Jordanian industrial companies. (128) questionnaires were distributed in the random sampling method to that population. And (116) questionnaires were retrieved (90%), which is acceptable and valid for statistical analysis.

4.2 Study Tool:

The questionnaire is the study tool on which the researcher relied to test the hypotheses of the study. The questionnaire consisted of two parts:

Part 1: It relates by the demographic characteristics of the study sample in terms of occupation, age, years of experience, scientific qualification, and scientific specialization.

Part 2: It contains from several paragraphs, and six axes to test the hypotheses of the study.

The study was based on the five-dimensional Likert scale to answer the questions about the study variables, as in the following table (1):

Table No. (1): A table showing the grades distributed on the questionnaires

Q. No.	Strongly agree	Agree	Neutral	Not agree	Strongly Disagree
Degree	5	4	3	2	1

The mean and standard deviations were calculated and treated in the following order (2.33 and low), (2.34 - 3.66 average), (3.67 and high). This measure is calculated according to the following equation:

(High limit (5) – Low limit (1)) / number of categories (3) = (1.333). This result was then added to the final of each category.

$1.333 + 1 = 2.333$ (**Low**), $2.333 + 1.333 = 3.667$ ($(2.333 - 3.667)$) (**Average**), $1.333 + 3.667 = 4.99$ (**High**) As shown in Table (2) below: (Sekaran, 2010).

Table (2): The means and the standard deviations of the study fields

No.	Field	Mean	Standard deviation	Degree of Agree
1.	Activity Based-Costing System	4.040	0.17167	High
2.	Target Costing System	4.100	0.14609	High
3.	Kaizen Costing Method	3.972	0.16020	High
4.	Re-engineering Value Method	4.085	0.16230	High
5.	Lean Production Method	3.970	0.16001	High
6.	Balanced Scorecard Method	3.990	0.55418	High

Table (2) showed that the values of the arithmetic mean for the fields of study were high, as it was in the upper part of the second field with an average of (4.100), and in the lower part of the fifth field with an average of (3.970).

4.3 Statistical methods used

The data were analyzed using the Statistical SPSS program where the following tests were performed:

- A. Cornobach's Alpha test to test the stability of the study tool.
- B. descriptive statistics by using the following:
 1. Frequencies.
 2. Percentage.
 3. The Mean.
 4. Standard deviation.
- C. Test (One-Sample t-test), to test the hypotheses of the study.

4.4 Test the validity and stability of the study tool

The Cronbach Alpha test was used to measure the degree of internal consistency. Table (3) showed that the stability coefficient for all study axes was (0.790), which is high with the acceptable ratio of (0.60), which indicates the stability of the study tool and high internal consistency Between its paragraphs.

Table 3: Cornobach's alpha stability coefficient for study axes

Axes	paragraphs	Alpha Value	Results
All study axes combined.	24	0.790	High

4.5 Analysis of demographic characteristics of the study sample:

Table (4) relates by the demographic characteristics of the study sample in terms of: occupation, age, years of experience, scientific qualification, and scientific specialization. The retrieved questionnaires showed that the demographic characteristics of the study sample were as follows:

Table (4): A table showing the demographic characteristics of the study sample

Characteristics	Category	Frequency	%
Occupation	Financial Manager	4	%3
	Vice Financial Manager	8	%7
	Financial and Administrative Accountant	62	%53
	Costing Accountant	16	%14
	Head of Accounting Department	10	%9
	Manager of Internal Control Unit	8	%7
	Internal Auditor	6	%5
	Other Financial Employment	2	%2
	Total	116	%100

Age	Less than 30 years	28	%24
	From 31 – 40 years	60	%52
	From 41 – 50 years	18	%15
	years51More than	10	%9
	Total	116	%100
years of experience	Less than 5 years	18	%15
	From 6 -10 years	64	%55
	From 11 – 15 years	24	%21
	More than 16 years	10	%9
	Total	116	%100
Scientific qualification	Less than Bachelor	10	%9
	Bachelor	98	%84
	Master	8	%7
	Doctorate	0	%0
	Total	116	%100
Scientific specialization	Accounting	92	%79
	Business Administration	14	%12
	Banking and Financial Sciences	4	%4
	Other	6	%5
	Total	116	%100

Table (4) showed that the highest percentage of the occupation was the category of "financial and administrative accountant" (53%). This is normal because most of the employees in the financial departments are accountants and do the specialized accounting profession. As shown above, this gives credibility in the responses. In terms of age, the age group (31-40 years) was 52%, which corresponds to the years of experience that were the highest in the group (6-10) years (55%). This enhances the credibility of the response (84%). This is due to the fact that the majority of Malaysians are trying to obtain professional certificates rather than obtaining academic certificates. The highest percentage was in the scientific specialization of accounting specialization (79%). Also this is normal because most accountants and financial their specialization during university studies is accounting. The establishments prefer the accounting specialization for these jobs, which gives credibility to the validity of the respondents' response and is consistent with the other characteristics, which indicates the possibility of confidence in the data obtained.

4.6 Testing the hypotheses of the study

The main study hypothesis states:

H0: There isn't a role for the managerial accounting modern tools to improve the profitability of Jordanian industrial companies. To test the main hypotheses of the study, the subsidiary hypotheses related to managerial accounting modern tools were tested as follows:

4.6.1 Test the first sub-hypothesis:

H0₁: There isn't a role for the activity-based costing (ABC) system to improve the profitability of Jordanian industrial companies.

To test this hypothesis, the collected data were analyzed as in Table (5):

Table (5): The means and the standard deviations of the first field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
1	The ABC application helps to accurately calculate the cost of products to help make pricing more accurate.	3.887	0.46733	High
2	The ABC application helps to incur indirect costs on the produced units more fairly.	4.012	0.39643	High
3	The ABC application helps to eliminate activities that do not add value, to reduce the cost of the product.	4.118	0.44148	High

4	The ABC application helps to determine the selling price of product more fairly and accurately.	4.141	0.57149	High
Average		4.040	0.17167	High

Table (5) showed that the degrees of agreement were high for all paragraphs of the field. The means were between (3.887 - 4.141) and standard deviations (0.467 - 0.571). The average of means was (4.040) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The first sub-hypothesis was tested using (one sample T test). The results were as follows:

Table (6): One Sample T-test to test the first sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
189.778	115	0.000	Rejection of nihilism H0 ₁

Table (6) shows that the value of T calculated at the mean (3) is (189.778) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the activity-based costing (ABC) system to improve the profitability of Jordanian industrial companies.

4.6.2 Test the second sub-hypothesis:

H0₂: There isn't a role for the target costing (TC) system to improve the profitability of Jordanian industrial companies. To test this hypothesis, the collected data were analyzed as in Table (7):

Table (7): The means and the standard deviations of the second field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
5.	The company is working to reduce the time required to produce the product and display it in the market to reach the target cost and thus good pricing and make a higher profit.	4.041	0.44148	High
6.	The company develops the capabilities of employees and their skills in order to reduce the target cost by increasing their productivity, thus achieving higher profitability.	4.131	0.47107	High
7.	The company is working to reduce product costs at an early stage of production to achieve the profit target.	4.002	0.39643	High
8.	The target costing system helps determine the competitive price to achieve the target profit margin.	4.223	0.49824	High
Average		4.100	0.14609	High

Table (7) showed that the degrees of agreement were high for all paragraphs of the field. The means were between (4.002 - 4.223) and standard deviations (0.396 - 0.498). The average of means was (4.100) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The second sub-hypothesis was tested using (one sample T- test). The results were as follows:

Table (8): (One Sample T-test) to test the second sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
213.766	115	0.000	Rejection of nihilism H0 ₂

Table (8) shows that the value of T calculated at the mean (3) is (213.766) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the target costing (TC) system to improve the profitability of Jordanian industrial companies.

4.6.3 Test the third sub-hypothesis:

H0₃: There isn't a role for the kaizen costing method to improve the profitability of Jordanian industrial companies. To test this hypothesis, the collected data were analyzed as in Table (9):

Table (9): The means and the standard deviations of the third field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
9.	The company studies and analyzes the costs of competing companies' products and compares it with their products to increase profitability.	4.112	0.46633	High
10.	The company encourages employees to innovate and apply new ideas to achieve higher productivity and the target profit.	3.812	0.64788	High
11.	The company make adjustments continuously on the production processes to suit the needs of the customer, which leads to increase the sales and achieve profit.	4.165	0.53124	High
12.	The company adopts kaizen costing method to improve the production and post-production stages to reduce costs and make profit.	3.799	0.76221	High
Average		3.972	0.16020	High

Table (9) showed that the degrees of agreement were high for all paragraphs of the field. The means were between (3.799 -4.165) and standard deviations (0.762 – 0.466). The average of means was (3.972) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The third sub-hypothesis was tested using (one sample T- test). The results were as follows:

Table (10): (One Sample T-test) to test the third sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
199.652	115	0.000	Rejection of nihilism H0 ₃

Table (10) shows that the value of T calculated at the mean (3) is (199.652) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the kaizen costing method to improve the profitability of Jordanian industrial companies.

4.6.4 Test the forth sub-hypothesis:

H0₄: There isn't a role for the re-engineering value (REV) method to improve the profitability of Jordanian industrial companies.

To test this hypothesis, the collected data were analyzed as in Table (11):

Table (11): The means and the standard deviations of the forth field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
13.	The company's products are subject to re-engineering operations in order to get rid of additives that do not add value for the customer, which helps in the profitability of companies	4.113	0.45732	High
14.	The company works to review all activities from the beginning of production until the arrival of the item to the client to reduce the cost and increase the profit.	4.009	0.62157	High
15.	The company constantly reviews the design and development of products to attract new customers and make a profit.	3.899	0.14132	High
16.	The company is re-designing the root of administrative processes to achieve improvements in administrative performance, which reflected positively on profitability.	4.320	0.58321	High

Average	4.085	0.16020	High
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Table (11) showed that the degrees of agreement were high for all paragraphs of the field. The means were between (3.899-4.320) and standard deviations (0.141-0.583). The average of means was (4.085) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The fourth sub-hypothesis was tested using (one sample T- test). The results were as follows:

Table (12): (One Sample T-test) to test the fourth sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
208.601	115	0.000	Rejection of nihilism H0 ₄

Table (12) shows that the value of T calculated at the mean (3) is (208.601) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the re-engineering value (REV) method to improve the profitability of Jordanian industrial companies.

4.6.5 Test the fifth sub-hypothesis:

H0₅: There isn't a role for the lean production (LP) method to improve the profitability of Jordanian industrial companies.

To test this hypothesis, the collected data were analyzed as in Table (13):

Table (13): The means and the standard deviations of the fifth field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
.17	The company is working to make good use of the workspace to reduce fixed costs and achieve profit.	3.981	0.42218	High
.18	The company employs workers with multiple skills and they have ability to detect and correct the errors in a timely manner.	3.877	0.61520	High
.19	The company trains its employees on basic and routine maintenance skills to reduce costs and increase profitability.	4.001	0.42218	High
.20	The company organizes its operations to identify activities where there are critical paths to reduce costs and increase profits.	4.022	0.59201	High
Average		3.970	0.16001	High

Table (13) showed that the degrees of agreement were high for all paragraphs of the field. The means were between (3.877-4.022) and standard deviations (0.615-0.592). The average of means was (3.970) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The fifth sub-hypothesis was tested using (one sample T- test). The results were as follows:

Table (14): (One Sample T-test) to test the fifth sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
193.625	115	0.000	Rejection of nihilism H0 ₅

Table (14) shows that the value of T calculated at the mean (3) is (193.625) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the lean production (LP) method to improve the profitability of Jordanian industrial companies.

4.6.6 Test the sixth sub-hypothesis:

H0₆: There isn't a role for the balanced scorecard to improve the profitability of Jordanian industrial companies.

To test this hypothesis, the collected data were analyzed as in Table (15):

Table (15): The means and the standard deviations of the sixth field paragraphs

No.	Paragraphs	Mean	St. Deviation	Degree
.21	The company is working to improve the cost structure (cost of product review)- (Financial dimension).	3.755	0.45897	High
.22	The company follows up the complaints of customer through many ways. (customers dimension).	3.998	0.64417	High
.23	The company is interesting in the development of administrative work systems and use of information technology. (internal operations dimension).	4.332	0.62116	High
.24	The company offers incentives and rewards for innovation and development. (innovation and growth dimension).	3.877	0.48331	High
Average		3.990	0.55418	High

Table (15) shows that the degrees of agreement were high for all paragraphs of the field. The means were between (3.755-4.332) and standard deviations (0.45897-0.62116). The average of means was (3.990) which represents a high degree of approval. The difference between the answers, which means different opinions and therefore the ability to rely on the answers. The sixth sub-hypothesis was tested using (one sample T- test). The results were as follows:

Table (16): (One Sample T-test) to test the sixth sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
204.688	115	0.000	Rejection of nihilism H0 ₆

Table (16) shows that the value of T calculated at the mean (3) is (204.688) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the balanced scorecard (BSC) to improve the profitability of Jordanian industrial companies.

4.6.7 Test the main hypothesis

H0: There isn't a role for the managerial accounting modern tools to improve the profitability of Jordanian industrial companies.

To test the main hypothesis, all the paragraphs were tested using the T- test for the sample, as follows:

Table (17): (One Sample T-test) to test the sixth sub-hypothesis

Calculated T-Value	F.D.	SIG	Result
322.154	115	0.000	Rejection of nihilism H0

Table (17) shows that the value of T calculated at the mean (3) is (322.154) and statistically significant (0.000), which is a statistically significant value at a level of significance less than (0.05). This means rejecting the null hypothesis and accepting the alternative hypothesis, there is a role for the managerial accounting modern tools to improve the profitability of Jordanian industrial companies.

5. CONCLUSIONS AND RECOMMENDATIONS

The study reached to many conclusions and recommendations, the most important of which are:

5.1 Conclusions

1. The results of the study showed that there is a role for the managerial accounting modern tools to improve the profitability of Jordanian industrial companies. We conclude from that the companies are interested in developing financial management systems according to the modern development in accounting to improve the profitability.
2. There is a role for the activity-based costing (ABC) to improve the profitability in Jordanian industrial companies, which means that the companies are adopting cost-effective systems.
3. There is a role for the target costing (TC) to improve the profitability in Jordanian industrial companies, and this indicate to the companies commit by determined cost, and do not exceed it during a specified period.
4. There is a role for kaizen costing method to improve the profitability in Jordanian industrial companies, this is indicating to the follow-up of industrial companies to improve their products.

5. There is a role for the re-engineering value method to the product, which means the rapid redesign of strategic processes to add value for the work with the lowest cost.
6. There is a role for the lean production method to improve the profitability of Jordanian industrial companies, which uses a group of techniques and tools that focus on eliminating all forms of waste and loss through the activities which do not add value.
7. There is a role for Balanced Scorecard, which deals with the four aspects of finance and non-financial to improve the profitability in the Jordanian industrial companies, which means the industrial companies interest by costs, product improvement and after-sales service.

5.2 Recommendations:

Based on the conclusions of the study, the researcher recommends by the following:

1. The need to encourage companies to follow the managerial modern methods, especially about the accounting aspect.
2. Encourage all companies in different sectors to use all the managerial modern methods, especially the application of the activity-based costing system, and the target costing system.
3. Encouraging the companies to use the Balanced Scorecard, which will take care of customers and after sales service to ensure their continuation and attract new customers to achieve the continuity and profitability goal.
4. Encouraging the companies to re-engineering value, lean production, to achieve the customer satisfaction and avoiding the activities that do not add value to the product.
5. Provide the staff with courses in the managerial modern methods, especially in the accounting side.
6. Encourage the researchers and scholars to conduct further research and studies in this subject to provide the economic sectors by recommendations to improve the profitability in their companies.

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