

# The Role of Managerial Accountant in the Measurement of Managerial Performance at the Jordanian Industrial Companies

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## Abstract

The study aimed to define managerial accountant role in the measurement of managerial performance, where researcher used the questionnaire to measure performance and the study sample consist of managers and accountants located in the middle management who amounted to 156 individuals distributed on the industrial companies registered at Amman stock exchange (ASE). The researcher found a role for each of the quality, cost, and added economical value measurements, as well as for customer satisfaction on the managerial performance at Jordanian industrial companies. The researcher recommended to increase the concern and attention of training employees at the managerial section and managerial accountant, and increase the management awareness, in order to improve the accounting methods and upgrade the level of managerial accountant, taking into account the role of managerial accountant in the accounting quality used in the middle management.

**Keywords:** Managerial accountant, costs system, performances quality, added economical value, customers satisfaction.

## 1. Introduction

The performance evaluation or measurement consider one of the major elements of management control system located at the companies, therefore the effective system to measure the managerial performance of operational processes must include key indicators of performance, which as a result study the company's activity as a whole, and help the performance measurements to align units goals with the company's strategic goals.

The company cares about performance measurement for the benefit of all parties, whether internal or external, and therefore achieve the company's objectives, which can be represened in a set of elements, such as quality, costs system, added economical value, and customers satisfaction. The performance measurements consider as a translation of the operational measurement results, which used to determine the achievement level of company's strategic goals.

## 2. Study problem

The study problem reside in the important economical phenomena that emerged after World War II, and the emerge of huge corporations which own capitals and investments that amount to billions, and also use thousands or hundreds of thousands of employees, where the senior management became unable to dominate and control the various activities of the firm, which force it to delegate large part of its administrative powers to the different departments, including the executive departments in order for the authorization process of operational decisions making, which related to the everyday and executive duties to arrive directly to the people working to implement those activities.

The main problem of the study reside in answering the following questions:

- Is there a role for the use of quality measurements to measure the managerial performance?
- Is there a role for the use of costs system to measure the managerial performance?
- Is there a role for the use of added economical value to measure the managerial performance?
- Is there a role for the use of customers satisfaction to measure the managerial performance?

## 3. Study objectives

The study aims to the following:

- Identify the role of using quality measurements to measure the managerial performance.
- Identify the role of using costs system to measure the managerial performance.
- Identify the role of using added economical value to measure the managerial performance.
- Identify the role of using customers satisfaction to measure the managerial performance.

## 4. Study importance

The financai performance measurement and evaluation of projects consider one of the most important phases of project life, due to its direct relationship with the success or failure of projects. This study came to identify the role of managerial accountant in measuring the financial performance, as well as identifying the operations which include planning, implementation, monitoring, and others, in addition to the evaluation of administrative and

financial performance of project. Study results may be an important reflections which can contribute to the development of financial performance evaluation methods of the project, and also identify the role of managerial accountant in the measurement processes. It adds an importance to this study which based on the measurement methods and the role of managerial accountant in it, where it may provide the project management the best possible future prospects and the way to deal with it. It's importance also shows through the expected additions it provide, which can benefit researchers in the academic field and practitioners in the real work situations. The study characterizes by the sensitive position that occupied by the managerial accountant, as the middleman between upper and low level management.

## 5. Study hypotheses

### First hypothesis:

There is no role for using quality measurements to measure managerial performance.

### Second hypothesis:

There is no role for using costs system to measure the managerial performance.

### Third hypothesis:

There is no role for using added economical value to measure managerial performance.

### Fourth hypothesis:

There is no role for using customers satisfaction to measure managerial performance.

## 6. Previous studies

The study of Ahmed Faraj, Ahmed (2015) entitled: "Fundamentals for the development and design of information management strategies, and its role to support the informative institutions" aims to explore the added value practiced by the methodological foundations of building and developing knowledge management strategies in the informative institutions, which can play an effective role towards achieving the ability to differentiate and invest in the knowledge management by specifying the knowledge requirements and increasing the awareness of it to facilitate its processing, management, and employment in the strategic planning of informative institutions, followed by the need to keep pace with the rapid technical developments. In view of that, the study focuses on the discussion of relationship between the strategy of information units and the strategy of parent institution, which described as broad and inclusive. It also deals with the mechanisms that lead to identify the appropriate strategy of knowledge management based on the goals, initiatives, and projects which informative institutions are assigned to do. The study continue to the important of standarize and continuous development of information strategies , by identifying the effective people, actors, and parties in it and also the processing and preparation stages that goes through it, and end with displaying the recommendations and suggestions to strengthen the connections across a regulated strategy of knowledge management in the informative institutions, its methods of support, risks and challenges reduction that may encountered and the way to overcome it.

The study of Osama Abdel Moneim, Fares Saud, Khalil al-Dulaimi (2015 "The role of managerial accountant in executing the requiements of corporate governance in the contributing Jordanian industrial companies –A field study from the perspective of the internal and external auditors" found that importance of corporate governance and good practices occupation is increasing dramatically with the passage of time, where its importance are escalating in the non-developed countries after it's received wide acceptance from the developed countries, especially after the emergence of financial crises, such as the crisis of Southeast Asia in the late nineties, and the crisis of American companies, like Enron and WorldCom, which happened due to the failure of those companies to implement the principles of corporate governance, and as a result of the deficiencies in accountants role, especially the management accountants related to the governance issues. Therefore, this study tried to specify the real role of managerial accountant in the implementation of corporate governance requirements at the participating Jordanian industrial companies. The study arrived to several important findings and recommendations, such as corporate governance considered the most important method used by management companies to manage their resources, with the aim of reaching higher goals, achieve the objectives of stakeholders and other parties related to the company, work hard to follow-up on the developments concerning the implementation of governance rules in the companies, and make more efforts to employ the managerial accountant occupation, in order to develop the awareness and role offered to all type of companies.

Study of Huda, Salih (2015) entitled " Management Accounting Methods and its Role in Achieving Pioneering In Hotel Organizations " aims to clarify the role of using management accounting methods to achieve the leadership in hotel establishments to increase revenues and reduce costs. The research population consist of all hotels working in Sudan, reviewers, and university lecturers, where the research will measure the implementation level of management accounting methods, as a practical methods to achieve the leadership in hotel establishments, and used questionnaire as a measurement tool. The research found that implementation of the managerial accounting methods to measure the costs and revenues of services in hotel establishments work to promote entrepreneurship through the improvement, development, and innovation of services performance in

hotel establishments, which increases the revenues. Study also found management accounting to be importance in recessions cases, which keep the hotel revenues and keeps it in the market competition.

Study of Naimi, Basima Falih Jijan entitled 2014 "The impact of exchange rate changes on management accounting reports" showed that reports prepared by the managerial accountant, which are provided to management considered one of the most important documents that management depend on to perform its functions, and consider as a base for the different management functions, such as planning, decision-making, controlling, and performance evaluation, despite the fact that part of the information contained in these reports are estimation. At the time when import of goods processes acquire a large portion of the financial resources of companies on one hand, and the change in exchange rates in away that can't be expected due to its connection with many of the political, economic, social, and many other variables on the other hand, the need appear for strengthen the role of management accounting reports to take into account the changes in exchange rates, in terms of its impact level on the financial statements and cost. In addition, search for a way to prevent and cover the risk of such changes and the reflection of that on the management accounting reports.

The study of Mark.E. Lokanan (2014) entitled, How senior managers perpetuate accounting fraud? Lessons for fraud examiners from an instructional case. where it examine the risk factors that led to the Livent fraud, and the procedures that need to be taken by responsible parties to carefully investigate and address the incidents of misconduct. The paper searches through the chronology of events that led to the Livent fraud by looking at both primary and secondary sources. These sources made it possible to examine how the fraud was discovered, and the investigative steps that should have been taken to uncover the fraud. The findings indicate that a corporate culture which focuses on the bottom line coupled with weak to non-existent internal controls were the key elements that led to the Livent fraud. The findings also illustrate that when faced with declining profits, senior managers will go to any length possible to manipulate and falsify their company's records. The paper is useful to management personnel and fraud examiners by using it as an actual accounting fraud case to highlight areas more vulnerable to fraud and the approach that can be taken to investigate similar cases of misconduct. The paper also highlighted the practical implications for internal and external auditors in detecting and addressing fraud. The study used an accounting fraud case to examine the techniques used by management personnel to produce fraudulent financial statement.

The study of Kasperskaya, Yulia, Tayles, Michael 2013 "The role of causal links in performance measurement models." Purpose – Several well-known managerial accounting performance measurement models rely on causal assumptions. Whilst users of the models express satisfaction and link them with improved organizational performance, academic research, of the real-world applications, shows few reliable statistical associations. This paper seeks to provide a discussion on the "problematic" of causality in performance measurement setting. Design/methodology/approach – This is a conceptual study based on an analysis and synthesis of the literature from managerial accounting, organizational theory, strategic management and social scientific causal modelling. Findings – The analysis indicates that dynamic, complex and uncertain environments may challenge any reliance upon valid causal models. Due to cognitive limitations and judgmental biases, managers may fail to trace correct cause-and-effect understanding of the value creation in their organizations. However, even lacking this validity, causal models can support strategic learning and perform as organizational guides if they are able to mobilize managerial action. Research limitations/implications – Future research should highlight the characteristics necessary for elaboration of convincing and appealing causal models and the social process of their construction. Practical implications – Managers of organizations using causal models should be clear on the purposes of their particular models and their limitations. In particular, difficulties are observed in specifying detailed cause and effect relations and their potential for communicating and directing attention. They should therefore construct their models to suit the particular purpose envisaged.

## 7. Practical framework & hypothesis testing

The nihilism hypothesis is accepted or rejected, according to the resolution or decision base which accept the nihilism hypothesis if the calculated value is less than the tabular value that will be extracted from the statistical tables, or if the value of Alpha (Sig) is greater than the value (0.05), which is the adopted ratio in humanities, and it will be rejected if the calculated value is greater than the tabular value, or if the (Alpha) (Sig) value is less than the value (0.05).

**Characteristics of the study sample:**

▪ **Qualification:**

Table (1) Sample vocabulary frequency and its ratio according to the qualification variable

Qualification	Frequency	Ratio %
Diploma or less	16	10.2
Bachelor degree	110	70.5
Higher education	30	19.3
<b>Total</b>	<b>156</b>	<b>100</b>

It notice from the table above that the highest ratio was for the sample members who their qualification were bachelor with a percentage of (70.5%), which gives an indication on the strength of the study.

▪ **Years of experience:**

Table (2) Sample vocabulary frequency and its ratio according to the years of experience variable

Experience	Frequency	Ratio %
Less than 5 yrs	12	8
From 5-10 yrs	60	38
From 11-15 yrs	70	45
Greater than 15 yrs	14	9
Total	156	100

It notice from the previous table that (45%) from the study sample members experience were between (11-15) years, which gives an indication on the strength of the study, and in the opposite study sample members ratio who their experience were less than 5 years amount to (8%), which enhance the importance and strength of the study.

▪ **Current position:**

Table (3) Sample vocabulary frequency and its ratio according to the current position variable

Current managerial position	Frequency	Ratio %
Accountant	56	36.0
Auditor	40	25.6
Financial manager	25	16.0
Department manager	35	22.4
Total	156	100

It notice from the previous table that highest ratio was (36%) for the sample members who work as an accountant, and (25.6%) for the members who work as an auditor, which gives an indication on the strength of the study.

Table (4) Arithmetic means and standard deviation of the questionnaire articles for the first hypothesis

First hypothesis The role of using quality measurements to measure managerial performance	Arithmetic mean	STDEV
1) Shorten and simplify the procedures to save time and speed up the introduction of products or services to customers	4.52	0.506
2) Reduce or cut costs of the product or service provided without touching the quality.	4.10	0.980
3) Implement the modern automated systems in all actions and procedures within the area, like the existence of internet sites to offer service or buy a product for customers without the need to go to this area.	3.68	0.933
4) Implement and update the management systems, such as organizational structures, job descriptions, regulations, payroll systems, and evaluate the employees performance	4.58	0.598
5) Internal and external audit and control on the financial systems and develop it to maintain the budget and its applications	4.11	0.648
6) The internal audit department operates freely in terms of selecting audit methods and procedures and its implementation scope	3.70	0.708
7) Maintain and keep on training employees on work skills and its updates.	4.30	0.501
8) Top management will Follow-up the managerial quality applications in business area and internal control and their eagerness to implement quality standards and update it	3.09	0.797
9) Care about customers' complaints, feedbacks, suggestions, and comments by studying them, taking what is executable, replying to them, and thanking them for their interest	3.80	0.720
10) Get help from advisers outside of the business, in order to evaluate and follow the quality standard applications and make recommendations	4.60	0.510
Total	4.038	0.6901

It shows from the table above that arithmetic mean amounted to (4.038), as a whole with a standard deviation of (0.6901), where paragraph (10) " Get help from advisers outside of the business, in order to evaluate and follow the quality standard applications and make recommendations" got the highest arithmetic mean of (4.60), with a standard deviation of (0.510), while the paragraph (8) "Top management will Follow-up the managerial quality applications in business area and internal control and their eagerness to implement quality standards and update it" got the lowest arithmetic mean of (3.09), with standard deviation of (0.510).

Table (5) Arithmetic means and standard deviation of the questionnaire articles for second hypothesis

Second hypothesis The role of using costs system to measure managerial performance	Arithmetic mean	STDEV
1) Its clear that all companies are using the total costs method, because its easily implemented to calculate the production cost, and its suitable for working conditions	3.94	0.898
2) Its clear that all companies are preparing a standard cost for their products, where its only used for comparison, to develop an idea about the cost deviations, and the possibilities to evaluate performance	4.42	0.471
3) All the companies which are part of the study survey are using computerized accounting systems and benefit from the high capabilities of computer processing	4.05	0.769
4) The development of control methods have an effect on the performance of production workers.	4.37	0.708
5) Its necessary to pay attention to the implementation of standard costs system, in order to use it for planning, control, and performance evaluation	4.47	0.687
6) There are no constraints or difficulties in implementing regulations and directions related to costs	4.25	0.836
Total	4.25	0.728

It shows from the table above that arithmetic mean amounted to (4.25), as a whole with a standard deviation of (0.728), where paragraph (5) "Its necessary to pay attention to the implementation of standard costs system, in order to use it for planning, control, and performance evaluation" got the highest arithmetic mean of (4.47), with a standard deviation of (0.687), while the paragraph (1) "Its clear that all companies are using the total costs method, because its easily implemented to calculate the production cost, and its suitable for working conditions" got the lowest arithmetic mean of (3.94), with a standard deviation of (0.898).

Table (6) Arithmetic means and standard deviation of the questionnaire articles for third hypothesis

Third hypothesis Role of using added economical value to measure managerial performance	Arithmetic mean	STDEV
1) It considers the correct method to calculate the profits of shareholders	4.21	0.528
2) It considers a financial criterion that understood by executives	3.69	0.819
3) It achieve the alignment between the administrative decisions and the shareholders wealth	4.26	0.776
4) Help to end the confusion when having several goals	3.63	0.668
5) The goods must have been actually received at the same way it were sold, it recorded in the books , and the value of it was returned to the buyers, including taxes or credit it to their account	3.40	0.650
6) Its principles are simple and easy to explain to the non-financial managers, where mostly the non-financial managers find it difficult to understand the financial instruments; and the "added economical value" can facilitate the communication process through understanding it easily, which enhance the cooperativeness inside the organization	3.66	0.690
7) The value of company depends on the degree of investors expectation about future profits to exceed the capital cost	4.66	0.632
Total	3.93	0.680

It shows from the table above that arithmetic mean amounted to (3.93), as a whole with a standard deviation of (0.680), where paragraph (7) "The value of company depends on the degree of investors expectation about future profits to exceed the capital cost" got the highest arithmetic mean of (4.66), with a standard deviation of (0.632), while the paragraph (5) "The goods must have been actually received at the same way it were sold, it recorded in the books , and the value of it was returned to the buyer, including taxes or credit it his account" got the lowest arithmetic mean of (3.40), with a standard deviation of (0.650).

Table (7) Arithmetic means and standard deviation of the questionnaire articles for fourth hypothesis

Fourth hypothesis Role for using customers satisfaction to measure managerial performance	Arithmetic mean	STDEV
1) Response to all queries posed by clients in a timely manner, where it will be answered appropriately, and with a high degree of credibility, accuracy, and clarity	4.21	0.528
2) provide services, deliver goods on time, and meet the promises and commitments made by the company to avoid loss of customer trust	3.69	0.819
3) Provide high quality goods and services, according to the required specifications, and within the specific cost, and also ensure the highest honesty and credibility, specifically in the financial transactions	4.26	0.776
4) Attract the new customers and win them over, by building a strong reputation of the organization and implement the core values with precision, which increase the number of clients and increase the sales and profits.	3.63	0.668
5) Employ a selection of personnel who are capable of dealing with people constantly and in suitable way; where they should be qualified for this profession and they required to have a high capabilities to connect and communicate with others	4.60	0.420
6) The ability to convince customers that this organization is the best, the ability to read and forecast their needs and requirements, and work to provide it as soon as possible	4.20	0.460
7) Submit and provide the new offers and deals for customers, gracefully and appropriately, in addition to demonstrating the ability to attract them and earn their interest	3.60	0.790
Total	4.03	0.660

It shows from the table above that arithmetic mean amounted to (4.03), as a whole with a standard deviation of (0.660), where paragraph (5) "Employ a selection of personnel who are capable of dealing with people constantly and in suitable way; where they should be qualified for this profession and they required to have a high capabilities to connect and communicate with others" got the highest arithmetic mean of (4.60), with a standard deviation of (0.420), while the paragraph (7) "Submit and provide the new offers and deals for customers, gracefully and appropriately, in addition to demonstrating the ability to attract them and earn their interest" got the lowest arithmetic mean of (3.60), with a standard deviation of (0.790).

## Hypotheses test

### First study hypothesis:

Ho<sub>1</sub> There is no role for using quality measurements to measure managerial performance

The first hypothesis test results:

Calculated T	Tabular T	Sig (Alpha)	Hypothesis result
8.40	4.19	0.00	Rejected

The researcher used T-Test and found from reading the computer results in the table above that calculated T value is (8.4), which is greater than the tabular value, and also the alpha value is less than (0.05), and according to the decision rule the nihilism hypothesis (Ho) will be rejected and will accept the alternative hypothesis (Ha), which means there is a role for using quality measurements to measure managerial performance. This result is strengthens by the arithmetic mean of questions' articles concerning this hypothesis, where the arithmetic mean of the hypothesis paragraphs amount to (4.038), which is higher than the weighted mean (3) and it means accepting the alternative hypothesis.

### Second study hypothesis:

Ho<sub>2</sub> There is no role for using costs system to measure managerial performance

The second hypothesis test results:

Calculated T	Tabular T	Sig (Alpha)	Hypothesis result
11.70	4.19	0.00	Rejected

The researcher used T-Test and found from reading the computer results in the table above that calculated T value is (11.70), which is greater than the tabular value, and also the alpha value is less than (0.05), and according to the decision rule the nihilism hypothesis (Ho) will be rejected and will accept the alternative hypothesis (Ha), which means there is a role for using costs system to measure managerial performance. This result is strengthens by the arithmetic mean of questions' articles concerning this hypothesis, where the arithmetic mean of the hypothesis paragraphs amount to (4.25), which is higher than the weighted mean (3) and it means accepting the alternative hypothesis.

### Third study hypothesis:

Ho<sub>3</sub> There is no role for using the added economical value to measure managerial performance

The third hypothesis test results:

Calculated T	Tabular T	Sig (Alpha)	Hypothesis result
10.30	4.19	0.00	Rejected

The researcher used T-Test and found from reading the computer results in the table above that calculated T value is (10.30), which is greater than the tabular value, and also the alpha value is less than (0.05), and according to the decision rule the nihilism hypothesis (Ho) will be rejected and will accept the alternative hypothesis (Ha), which means there is a role for using the added economical value to measure managerial performance. This result is strengthens by the arithmetic mean of questions' articles concerning this hypothesis, where the arithmetic mean of the hypothesis paragraphs amount to (3.90), which is higher than the weighted mean (3) and it means accepting the alternative hypothesis.

### Fourth study hypothesis:

Ho<sub>4</sub> There is no role for using customers satisfaction to measure managerial performance

The fourth hypothesis test results:

Calculated T	Tabular T	Sig (Alpha)	Hypothesis result
11.23	4.19	0.00	Rejected

The researcher used T-Test and found from reading the computer results in the table above that calculated T value is (11.23), which is greater than the tabular value, and also the alpha value is less than (0.05), and according to the decision rule the nihilism hypothesis (Ho) will be rejected and will accept the alternative hypothesis (Ha), which means there is a role for using customers satisfaction to measure managerial performance. This result is strengthens by the arithmetic mean of questions' articles concerning this hypothesis, where the arithmetic mean of the hypothesis paragraphs amount to (4.03), which is higher than the weighted mean (3) and it means accepting the alternative hypothesis.

## 8. Study results

### First results

There is a role for using quality measurements to measure managerial performance, where the calculated T value is (8.4), which is greater than its tabular value, and also the alpha value is less than (0.05)

### Second results

There is a role for using costs system to measure managerial performance, where the calculated T value is (11.7), which is greater than its tabular value, and also the alpha value is less than (0.05)

### Third results

There is a role for using the added economical value to measure managerial performance, where the calculated T

value is (10.3), which is greater than its tabular value, and also the alpha value is less than (0.05)

#### **Fourth results**

There is a role for using customers satisfaction to measure managerial performance, where the calculated T value is (11.23), which is greater than its tabular value, and also the alpha value is less than (0.05)

### **9. CONCLUSION AND RECOMMENDATION**

This study has examined in details, the role of managerial accountant in the measurement of managerial performance at the Jordanian industrial companies, through the quality measurement, costs system, added economical value, use of customers satisfaction. The logistic simple regression was used in analyzed the data, the study found that there is a role for using quality measurements, and costs system, added economical value, customers satisfaction to measure managerial performance.

This study recommended that to increase the attention and interest and train personnel in the administrative section and the managerial accountant.

and increase the awareness of management to improve the accounting methods and promote the managerial accountant level, take into consideration the role of managerial accountant in the accounting quality used in middle management. Use other indicators through the costs system to measure the management performance.

The research is important to companies, as well as users the information, that would want to absorb this idea, and also to customers who want to be part of the system. The research stresses mainly on what others have discovered, and on the knowledge that already exist as a way of study. It is also enable students and other stakeholders in the companies to be more aware of the recent development in the companies sector, and how it can affect their performance. The research would also benefit whoever has concerns and questions about information a companies

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