

ASPECTS OF OBSTACLES FOR APPLYING ACTIVITY BASED COSTING (ABC) SYSTEM IN EGYPTIAN FIRMS

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Abstract

The following investigation aims to determine the aspects of obstacles for applying Activity Based Costing (ABC) system in the Egyptian case and the significant differences among the effects of such obstacles. The Study used the survey method to describe and analyze the obstacles in some Egyptian firms. The population of the study is Egyptian manufacturing firms. This survey used the number of 392 questionnaires that were used throughout the total of 23 Egyptian manufacturing firms, during the first half of 2013. Finally, the study found some influencing obstacles for applying this system (ABC) and there were significant differences among the aspects of obstacles for applying ABC system in the Egyptian manufacturing firms.

Key words: ABC, activity based costing, cost account, Egyptian firms, manufacturing

INTRODUCTION

Cost Accounting plays an important and influential role in various aspects of the facilities of keeping pace with the requirements of society and the needs of the administration which change rapidly. Since the twentieth century, the world is facing a new era of overwhelming mutations in the field of nascent needs for managerial accounting. These nascent needs must be faced by applying a non traditional solutions in the area of managerial accounting for increasing the revenue of establishments.

Nowadays, in regard to the business environment, it can be observed that the cost accounting systems play an important role for determining many aspects of the work of firm which affect its competitive position. Therefore, it requires the application of an effective and efficient accounting system.

Many companies in various countries applied Activity Based Costing (ABC) system as a modern and progressive costing method because of its positive impact on the financial performance.

The main objectives of the research are to determine the aspects of obstacle for applying Activity Based Costing (ABC) system in Egyptian firms; and at the same time to determine the extent of similar effects between these obstacles.

Many studies concentrated on the presentation of the obstacles implemented by the Activity Based Costing (ABC) system and its importance when applied in the firms.

El-Gibaly and Diab (2012) mentioned that Egyptian companies are now operating in intensive competitive environment to make significant process improvements in areas such as quality, productivity and innovation, because that customer expects more product choices, at lower prices, with higher quality and faster delivery. It is also evident that companies nowadays need more accurate, timely and reliable operational and financial information to permit the managers to make effective strategic and tactical decisions about pricing, product line development, process improvements, product mix, investment decisions, etc.

Turney (2010) confirmed that the rise in the costs linked to implementation is the most important obstacles of implementation which prevented implementing the Activity Based Costing (ABC) systems in the economical units in addition to being among the systems which are described as complex systems. Helmy, in 2009, concluded that the recent and rapid changes in business environment led to the emergence of modern systems of cost and increasing global competition to maximize the role of cost management. The precise knowledge of the product cost and its pricing as well as proper planning concepts became more important than they were in the past. Each establishment is seeking for gaining a competitive advantage to enable them to survive and continue in the global market competitiveness.

Grasso (2005) stated that the criticisms to the Activity Based Costing (ABC) systems exceed the advantages expected from them where the costs related to implementing, developing and maintaining this system exceed the advantages which the system achieves such as improving profitability and increasing the competitive capacity for some American companies. He also pointed out that many of the companies which did not depend on implementing these systems, but they still rely on the Traditional Costing (TC) system.

Sievanen and Tornberg (2002) showed that the Activity Based Costing (ABC) systems are very complicated and very expensive. They also stated that the economical units are in dire need to provide a costing system which collects between the operational and strategic theory which is something not available in the Activity Based Costing (ABC) systems which have strategic view.

Merchant and Shields (1993) stated that some economical units do not need to implement Activity Based Costing (ABC) systems because these units need concentration on providing competitive features without giving attention to providing accuracy suitable for costing because these units enjoys some features such as relying on fixed technical product or producing products with relatively

short life cycle which reduces their wish in implementing such systems.

Nicholls(1992) illustrated that the management opposition to get rid of the Traditional Costing (TC) system and implementing the Activity Based Costing (ABC) system and its objection to changes or to provide the required financial resources, is one of the obstacles which obstructs implementing it

Therefore, it may be deduced that it is possible to overcome the opposition of the management and workers in the economical unit to the changes through transferring them from receiving the changes to partners in the changes; in addition to persuading them of the benefits occurring to them and to the economical unit from implementing the Activity Based Costing (ABC) system in the appropriate form and the necessity to train them sufficiently on implementing this system.

Piper and Walley (1991) mentioned that the selection of cost drivers is very difficult because the activities consist of a group of works which are practiced inside the organization; in addition to that each activity consists of secondary activities and then the workers select the cost drivers with a large number of cost drivers for works; and then select one of them only to become the cost drivers for the activity which is something not easy .

From the previous studies, it may be summarized what stated above, in that there are many obstacles to implement the systems successfully in the economical units; and that it is most important takes the form in the management and workers objection to the change and to the in-ability to provide the required financial resources and difficulty in implementing this system which are characterized of their being complicated and difficulty in determining the cost drivers relate to various activities.

MATERIALS AND METHODS

The authors used the survey method to describe and analyze the aspects of obstacles

for applying Activity Based Costing (ABC) System in Egyptian firms. The population of the study was some of the Egyptian manufacturing firms.

The model of study includes main independent variables which represent obstacles for applying Activity Based Costing (ABC) system in Egyptian firms

The following function was used:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

where:

Y = Impact of obstacles for applying Activity Based Costing (ABC) system on financial performance of firm.

X₁:The weakness of support from top management.

X₂:The weakness of human expertise.

X₃:Resistance to change.

X₄:The weakness of system accounting .

X₅:The costs of design and application system.

X₆: The random behavior of indirect costs.

The authors can be depicted the proposal model as shown in Fig.1.

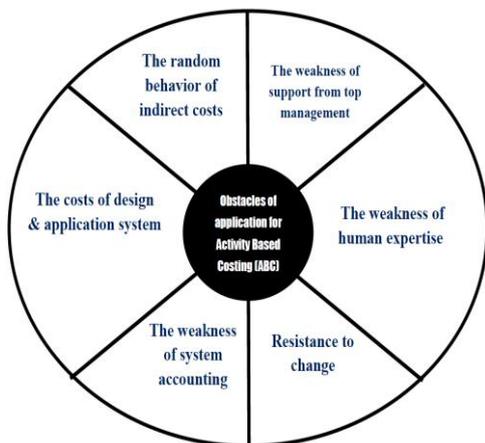


Fig.1: Obstacles of application for Activity Based Costing (ABC) system.

Data.The authors used the questionnaire instrument in addition to the test approach to confirm the correctness of views collected. The number of questionnaire instruments sent was 478 and the number of the received questionnaires was 392 with a response percentage of 82%.

Methods and data analysis

The study used a Statistical Package for the Social Sciences (SPSS) for application of

reliability, descriptive and inferential statistics.

RESULTS AND DISCUSSIONS

Statistical analysis

1.Reliability

The correlation coefficient between the dimensions (Obstacles) was significant (at level 1%) and the Cronbach-Alpha Coefficient was 80.64.

2.Descriptive

Table 1 shows values of mean and Standard Deviation (S.D.) of survey dimensions.

Table 1. Descriptive statistics values

No	Dimension	Mean	Standard deviation
1	The weakness of support from top management.	3.9005	1.2865
2	The weakness of human expertise.	3.1990	0.9786
3	Resistance to change.	3.7066	1.1766
4	The weakness of system accounting.	3.7041	1.2301
5	The costs of design and application system.	3.4515	1.0812
6	The random behavior of indirect costs.	2.1046	1.2900

Source: SPSS output

The descriptive statistics of dimensions impact showed that the mean values for the weakness of support from top management (3.9005) > resistance to change (3.7066) > the weakness of system accounting (3.7041) > the costs of design and application system (3.4515) > the weakness of human expertise (3.1990) > the random behavior of indirect costs [Technical dimension] (2.1046).

Also, the Standard Deviation (S.D.) values for the impact of dimensions mentioned above were 1.2865, 1.1766, 1.2301, 1.0812, 0.9786 and 1.2900, respectively.

3.Inferential statistics

Table 2. Output of Friedman Test (Ranks and test statistics)

a.Ranks

Rank	Mean rank
X1	4.24
X2	3.16
X3	3.85
X4	3.85
X5	3.53
X6	2.37

b. Test statistics

N	392
Chi Square	673.890
df	5
Asymp.Sig.	.000

Source: SPSS output

From Table 2, it may be observed that there are significant differences among the aspects of obstacles for applying Activity Based Costing (ABC) system in Egyptian firms.

CONCLUSIONS

The Activity Based Costing (ABC) system is one of the main alternatives to cost systems for manufacturing firms, however this system has not widely spread in Egypt. The questionnaire stated some important aspects of obstacles for applying ABC system. Statistical analysis showed that there were significant differences among these aspects of obstacles for applying ABC system in Egyptian manufacturing firms. These obstacles may be arranged, in descending order, according to their impact severity for applying Activity Based Costing (ABC) system on Egyptian firm performance as follows: a) The weakness of support from top management, b) Resistance to change, c) The weakness of system accounting, d) The costs of design and application system, e) The weakness of human expertise, f) The random behavior of indirect costs [Technical dimension].

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