The Role of Cost Accounting System in the Pricing Decision-Making in Industrial Companies of Taiz City, Yemen

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Abstract

This study aims to explain the role of cost accounting systems in the process of pricing decision-making in Yemeni industrial companies of Taiz City. The researcher has used both descriptive and analytical methods which suit the nature of the present study which is mostly based on field work and the theoretical underpinnings. A group of previous studies related to the subject of the study have been utilized in the construction of study tools (questionnaires) which have been distributed in the industrial companies in the Taiz city, Yemen. The study targeted accounting costs, accountants, auditors and managers of financial department’s in industrial companies. Data analysis through the Statistical Package for Social Sciences (SPSS) was the use of scientific statistical methods “Frequencies and percentages, SMA, Standard deviation, t-test, Cronbach's alpha test. The results indicate that the cost of the accounting system applied in industrial companies provides quality accounting information; there is an impact of this information on the pricing decision-making; there are areas in which pricing decisions much depend on the information provided by the cost accounting systems. This study contributes to the literature by providing an analysis of the role of cost information in pricing decisions within industrial companies in the Taiz city, Yemen.

Keywords: cost accounting information systems, pricing decisions, Industrial companies, Taiz, Yemen
Introduction:

Accounting information system is an important resource of an organization as it works to provide management practice with necessary information for decision-making. It also plays a key role in the provision of an integrated vision of the organization to align its capabilities and resources available to them, and their areas of work for the purpose of optimizing use of these resources in the case of the use of data and information in an efficient and effective manner. For an organization, the decision to set prices has a direct impact on the revenue it can earn. Price and volume are the two components of the revenue equation, and the choice to focus on one will directly affect the other (Lane & Durden, 2013). If the price is set too high the customer may turn away, but a high price may also associate with desirability to the customer (Skinner, 1970). If a business can achieve an efficient price for their product they will maximize their revenue earned. According to economic theory an efficient price relies on market forces of demand, competition and costs (Claret & Phadke, 1995).

Today’s cost accountant must understand many functions of a business’s value chain, from manufacturing to marketing to distribution to customer service. This is particularly important when the company is involved in international trade (Ali, 2015). Accountants also have recognized that information is a costly assets and have questioned the necessity of acquiring additional information. FASB 33, requiring to present the supplementary information, an enterprise needs to measure the effects of changing prices on inventory, property, plant, and equipment, cost of goods sold, and depreciation, depletion, and amortization expense. No adjustments are required to other revenues, expenses, gains, and losses.

This study is going to talk about the role of cost accounting system in the pricing decision-making in industrial companies of Taiz City, Yemen. The results of this study will give experts and manager’s clues and needed info for taking price decisions by using cost accounting system.

Theoretical basis of research:

Cost accounting system

The cost accounting, one branch of accounting, which has recently seen many developments due to the attention of academics and faculties after it had been used primarily by the corporate sector, commonly used among the services sector, banks and other different sectors. The use of cost accounting is gradually being spread to some public sector enterprises. The increased global competition among private enterprises attracted management fields’ attention. The need to control costs related to production of a goods and services, thereby enables the entity to compete with other entities’ work in the same field.

The cost accounting system is designed to provide information to managers for decisions pertaining to planning and control Langfield-Smith et al (2009). The traditional design of cost accounting systems has been criticized for defining a distinction between fixed and variable costs (Cooper & Kaplan, 1992).

Cost accounting information system designed to provide valuable information useful for the management of the company to assist them in the exercise of its various functions of planning, control and decision-making where management needs cost information- accurate, fast and reliable. The system of cost information is an important source in many administrative decisions, such as pricing decisions,
determination of the optimal mix of products, and measurement of the cost of operations within the company, eventually evaluation of the results.

There is no doubt that the existence of a system of cost information is indispensable to provide appropriate information to make decisions with the stunning development of information systems, it is no longer a problem facing the decision maker of the availability of information; on the contrary, the real problem is that there is tremendous information that requires classification and tabulation. We need to choose the appropriate information to the right decision-maker, balance the trade-off between the available alternatives for various administrative decisions.

**Price decision making**

Pricing decisions are made within the context of a firm's overall marketing plan. They reflect not only the policies and practices which management have decided to implement in order to attract buyers but, additionally, the organizational structure of the firm in which they are made(Foxall, 1980)

The cost system is the primary source of information for the management of the company and upon which many decisions are strategic, especially pricing. Therefore, lack of accuracy of the information means the decision is not sound, and the decision-making process is a continuous process and inherent to the company since before its inception. The production process is the basic activity of industrial companies, cost systems have a role in providing management information quality that can be relied upon in making the appropriate decision and covers the target period, so the study highlights on this subject which will improve the role that contribute to cost systems even the information produced by this system is basically in decision-making and as a basis for pricing a trade-off between making available.

The objective of each studied is to increase the efficiency of the basic system, which is why managers need concrete and timely information for decision-making within an entity. From here arises the need to improve cost accounting system. Accounting information for users fall into one of the categories: public information or confidential information.

**Research Background**

Azad et al (2016) in study named “the Effect of Cost Accounting System Inventory on Increasing the Profitability of Products” have investigated that the use of appropriate storage systems inventory can increase the efficiency and profitability of the plant.

Ahadi et al (2016) have showed that there are significant differences between the information of cleared-cost based on activity-based costing system with the traditional system in the General Directorate of Roads and Urban Development of East Azerbaijan Province.

Lane & Durden(2013) have investigated the role of cost information and costing systems in the pricing decisions of tourism organizations. Data was collected via an online survey instrument from a range of Queensland tourism organizations. Full cost information was found to have relatively greater importance.
Customer oriented and short-term survival objectives were found to be the more important pricing objectives.

Topor et al (2011) have understood how information derived from management accounting has an impact on development and foundation of new decisions and therefore to better understand the relationship between management accounting and information and showed the efficiency of information provided by management accounting in decision making and the operational control of the production process.

Martin & Stevens (2011) have analysed cost accounting system from a cost – benefit perspective and find that in some circumstances traditional methods with their aggregated level of detail are economically optimal. They have proposed an effective approach to integrate both ABC and ECA systems. A case study analysing process is used to compare the traditional accounting system and the ABC system for allocating environmental costs. The results enable managers not only to understand financial information regarding the activities for environmental protection and the percentage of environmental costs in the overall product costs but also to make more objective and accurate decisions.

Lucas (2003) has evaluated the research supporting the accountants’ and economists’ respective positions and argues that neither is strongly supported by the conflicting empirical evidence. It then identifies the issues that need to be resolved by future research intended to assess whether empirical evidence supports neoclassical price theory or (full) cost plus pricing.

Hoque (2000) observed that cost information was important to management. It was important in pricing decisions, but the research did not subsequently consider its importance in other types of product-related decisions.

Al-Basteki & Ramadan (1998) identified the applications cost accounting systems in industrial companies of Bahrain, the study was conducted on a sample of 43 industrial companies and the study found that the data cost accounting system used in cost control in 56% of the companies, and in the pricing decision making, 58%, and in the inventories 11.6% of the companies; It also indicated that the results of the study to determine the unit cost of the product are useful in cost control, product pricing decisions and the preparation of budgets.

Green & Amenkhienan (1992) found the following to be the major problems associated with the introduction of ABC system: (1) the increased amount of detailed information needed by the new system, (2) increased paperwork, (3) difficulty in cost driver identification, and (4) insufficient support by top management. Then, (Emore & Ness, 1991) found that cost information had a critical role in pricing, make-or-buy, cost control and product/market strategy decisions.

Cooper & Kaplan (1987) found that product costs were important in decisions relating to the pricing, introduction, discontinuation and the amount of effort given to selling products.
Research methodology

The population, sample and sampling

The population of the research are accounting costs, accountants, auditors and managers of financial departments in industrial companies in the province of Taiz where 80 of them have been selected. We chose them based on five industrial companies sampling formula. For sampling after estimate the sample size the simple random sampling was used (66) questionnaire percentage of total recovery (83%). As sample.

Research tools

The instrument used in this study, is a standard questionnaire based on Likert of 5 scale (from very high to very low) is designed. The Study Implement consists of two major aspects. The first part, Personal Information which is about (age _ Qualification _ scientific specialization _ years of experience _ occupation) the second part is about the dimensions of the study and the questionnaire consists of 24 items distributed on three axes:

- The first axis the quality of information provided by the cost accounting system, consists of 8 variables.
- The second axis: the impact of information in making pricing decisions, and consists of seven variables.
- The third axis the adoption areas of pricing decisions on cost information, and consists 9 variables.

Questionnaires distributed to all components of the study population, were recovered at the percentage of 83% (66). In order to collect information and data required to test the hypotheses, five-item Likert-type questionnaire was used.

The validity of this study was confirmed by a number of professors of accounting and Cronbach's alpha was used to confirm the validity of the questionnaire, its amount was 0.989 that indicates its high reliability.

The Analysis of Data

We have used Descriptive statistics and Data analysis through the Statistical Package for Social Sciences (SPSS) was the use of scientific statistical methods “Frequencies and percentages, SMA, Standard deviation, Test t-test, Cronbach's alpha test.

Research Findings

The researchers calculated the averages and standard deviations of the paragraphs of each hypothesis, as well as the overall average for each hypothesis, in order to determine the degree of approval of the sample to those paragraphs, and then the researcher tested the significance of differences between these averages and the average default (3.5) and using the T-test for the hypothesis that judges the degree of approval, where the difference is statistically denoted if the value is greater than the calculated (T)tabular significance level adopted in this study (0.05), which confirms the degree of approval while as the value
of the significance level is greater than the significance level adopted in this study (0.05), it indicates that the position of the sample about that hypothesis has not been clear and tests for each hypothesis below:

First hypothesis: The quality of information is provided by the cost accounting system at Industrial companies in the province of Taiz.

**Table 1: The average deviation of the test (T-test) with the quality of information**

<table>
<thead>
<tr>
<th>The basis of the test</th>
<th>SMA</th>
<th>Standard deviation</th>
<th>T-test</th>
<th>Freedom degree</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between an average default rate of 3.5 and average variables of 3.8239 derived from hypothesis</td>
<td>3.8239</td>
<td>0.67474</td>
<td>3.899</td>
<td>65</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Results of the hypothesis test show that the value of (T-test) calculated amount to (3.899) and the level of significance of (0.000) which indicates the presence of statistically significant differences between the average default and actual average variables. The difference (0.323) between them is statistically insignificant. This was due to the fact that the appropriate information used to make a decision based pricing is reliable to predict future’s competition scenario. The results makes us accept the hypothesis installed.

Second Hypothesis: The Effect of the information provided by the cost accounting system in making pricing decisions at Yemeni Industrial companies in the province of Taiz.

**Table 2: The average deviation of the test (T-test) on the impact of information on pricing decisions**

<table>
<thead>
<tr>
<th>The basis of the test</th>
<th>SMA</th>
<th>Standard deviation</th>
<th>t-test</th>
<th>Freedom degree</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between an average default rate of 3.5 and average variables of 3.8239 derived from hypothesis</td>
<td>4.1212</td>
<td>0.61053</td>
<td>80269</td>
<td>65</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Results of the hypothesis test show that the value of (T-test) calculated amount to (3.899) and the level of significance of (0.000) indicates the presence of statistically significant differences between the average default and actual average variables. The difference (0.323) between them is statistically insignificant. This was due to the fact that the appropriate information to make a decision based pricing is reliable in predicting the timing and competition. The results makes us accept the hypothesis installed.

Third hypothesis: The accreditation areas of pricing decisions on cost information system at Yemeni Industrial companies in the province of Taiz.
Table 3: The average deviation of the test (T-test) in the areas of accreditation

<table>
<thead>
<tr>
<th>The basis of the test</th>
<th>SMA</th>
<th>Standard deviation</th>
<th>t-test</th>
<th>Freedom degree</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between an average default rate of 3.5 and average variables of 3.8239 derived from hypothesis</td>
<td>3.9141</td>
<td>0.67313</td>
<td>4.998</td>
<td>65</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Results of the hypothesis test showed that the value of (T-test) calculated the total (4.998) and the Level of significance of (0.000) indicates the presence of statistically significant differences between the average default and actual average variables. The difference (0.4141) between them is statistically insignificant. This was due to the process of selection and adoption of the decision based on a number of bases and the conditions that make the decision is the ideal alternative to that and wrote costs applicable provide quality information and be accepted in the light of the foundations and conditions that govern the decision. The result makes us accept the hypothesis installed.

**Conclusion:**

There is a significant positive relationship between the Role of Cost Accounting System in the Pricing Decision-Making in Industrial Companies of Taiz City, Yemen. In the context of the present results with the results of (Lane & Durden 2013) Pricing decisions and the role of cost accounting systems and cost information in tourism organizations matched. The role of cost information has a significantly positive effect on the decision-making in the Case study of Annales Universitatis Apulensis. The research findings match with Topor et al. (2011).

Management accounting researchers have long considered the impact that a business ‘costing system has on the way pricing decisions are reached. This study has been conducted that the quality of information provided by the cost accounting system have been shown by statistical analysis tools, the responses show the subjects about the quality of information that is provided by cost accounting systems in the pricing decision making in the short term where the arithmetic mean of the axis (3.8239), a degree of approval by the members of the sample and this means that the systems provide information relevant high quality used in making pricing decisions. The results are in parallel with the research findings of Namazi (2009), Azizi (2012), and Fartookzadeh (2014).

The impact of information in making pricing decisions have been showed by statistical tools the views of respondents on the impact of the information provided by the cost accounting system in making pricing decision. It appears the arithmetic average of the axis (4.1212), a degree of approval accepted by members of the sample and this means that there is an impact of the information provided by the system in making pricing decisions. . The results are in correlation with the findings of Topor et al (2011) and Hoque (2000). Other results showed that the adoption areas of pricing decisions on cost information system where the arithmetic mean of the axis (3.9141), a degree of approval by the members of the
sample and got (.64313) on a standard deviation, which indicates that there is concentration in the sample opinions about this axis, and this means that there are areas of the adoption pricing decisions on cost information system in industrial companies. The research results are in correlation with findings of (Martin & Stevens, 2011).

If appropriate information based on reliability in making pricing decisions for products is used in a timely manner to make predictions, it will help companies win over others in competitions. Quality can be achieved, efficiency increased in the performance of pricing decisions, the cost of decisions reduced, and the skills of the decisions makers improved at the aid of the information provided by the cost system. There are some areas adopting the pricing decisions on the basis of cost information related to major products, they add more economic value in the light of the plans and programs of companies.

**Practical suggestions:**

Through what has been reached from the results, the researchers suggests management companies which operate in the field of manufacturing as follows:

Expansion to take advantage of cost accounting systems in all public and private industrial facilities, especially in the area of pricing decisions.

Adopting a new vision in the design of such systems in order to provide high quality information to get benefit chances.

Do studies in companies to verify the extent of adoption of the applications of cost systems and the role of these applications in promoting and strengthening pricing decisions.

Promote specialty departments to provide cost accounting information for the costs that are of high quality in order to make the optimal resolution and thus lower cost.

**References:**


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