

## Study And Development of Governmental Services Cost Price Accounting Model in Iran

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**ABSTRACT:** The transition to the international methodology of cost accounting and statistics has exclude “non production sector” concept, which has been continuously applied in the service sector in the practice of Islamic Republic of Iran. During recent years, the service sector has continued to be one of the most developing sectors of the world economy. In most developing countries, as a consequence of restrictions on activities, the private sector is not built on firm grounds and therefore, does not function effectively. On the other hand, the public sector holds a major portion of the economic activities and takes a big part in producing goods and providing services at a single-rate price: mostly determined by the legal and supervisory authorities. As a result of this practice, in our country, there have been continuously raising difference between the final cost of the production and price of goods (service). There are factors affecting to that, among them lack of a suitable system for calculating the final cost and lack of information transparency related to the quality of products are of importance. The research is an applied study in the field of industrial (cost) accounting. It focuses on evaluating the effectiveness of the cost accounting systems and its development in companies with 51% or more state shareholding. As information source, the library study and service of the statistical center of Iran has been used, along with the accounting records of the organizations under study and the state budget data. For collecting empirical data, a set of questionnaire with 30 questions has been used. Different public organizations have been chosen, out of which 100 different professionals were participated in the survey. The questionnaire results then were analyzed to reach a conclusion and make recommendations. In addition, there is also a description of limitations to the study.

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**Key words:** cost accounting system, managerial accounting, production cost, public companies, cost of goods, price, information transparency, users of financial reports

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### 1. Introduction

In recent decades, the world has continuously been in the process of transformation, especially with regard to the international methodology of cost accounting and statistics. With this regard and by considering the globalization trend, the accuracy of information about products produced or services rendered are of high importance.

Nowadays, the accounting, economic and financial management theories not only offer different methods for calculating, estimating and predicting the final cost of goods and services that are influenced by the open market relationships, but also put emphasis on the necessity and importance of the Automated calculation systems. The proper cost calculation and final cost accounting methods not only allows for measuring the efficiency degree of a series of a specified production operations, but also is able to offer

a comparison of this efficiency degree among the different manufacturing and service sections. As a result, aside from the possibility of the preparation of accurate financial statements, the assessment of the yield and growth rate of the economic activities can be facilitated as well. (Being informed about such variables the intended activities can be given priority in allocating capital resources, or through revising the service provision and manufacturing methods the final cost of any intended goods and services can be assessed within the public and private market sectors.)

Thus a necessary condition for organization success is setting competitive prices. Hence, the researcher seeks answers to the following questions:

1. Does the present cost accounting system function in conformity with relevant laws and regulations?

2. What kind of relationship there is between the costs accounting and method of goods/services Pricing?
3. What are the organizational obstacles restricting the pricing by the companies?
4. How to improve the present cost accounting system?
5. How to control the arising differences between cost of goods/services and the selling price?

## 2. Research Background

During the 1970s of the last century, the Iranian economy faced deep transitional periods, which targeted at improving the market mechanism. It was a very complicated and contradicting process that affected not only the producers and consumers, but also the public interest as a whole. It imposed its stamp both on the process of production, circulation and service sector as well.

According to the founder of market economy: Adam Smith's doctrine, the need of market relations stems from the separation of the public work and economic split of the producers (based on features), who are acting independently while simultaneously affecting each others.

According to views of most of the economists, the government intervention in the regulation of economic activities must be "limited", otherwise, the effectiveness of the market economy will be reduced. Simultaneously in the professional literature, it is expressed that the government should not be involved in all the economic affairs, since it will affect the effectiveness of the market economy relationships. This means that the government involvement in all affairs must be limited to some extent, just where it is a necessity for fair regulation. Thus, it can be stated as follows: "Competition must be everywhere, where it is possible, and regulation should be there, where its is expected to be." As a rule, the immediate government regulating approach is appeared at least at the microeconomic level, and the maximum: on the macroeconomic level.

In market relations the buyers can be either the producing firms and big organizations or the end users (the public). Regarding latter, the demand is for the consumption goods. But the classification of market gets more complicated in cases where there are production factors, industrial services and part of consumption items (demanded by massive consumers.) In general, services are separated in two parts: one part goes to the production of material goods and services sector for industrial consumption purposes, while the other part is non productive consumption and goes to the final consumers. In service sector, there are such economic units that carry out various production

functions. There are four categories of branches in the service sector. Those are branches that: a) Produce market related services, .b) Produce non-market related services: based on state institutions. c) Produce non-market related services: based on private, non-commercial organizations.

Within each sector of the economy, the formation of subsectors is closely related to the national economy features of a given country. The economic branches in Iran are classified as production of goods and service industries.(Table 1)

Table 1. Classification of the branches of economy

1.	Mining industry
2.	Electric energy, gas, water supply
3.	Transportation and communication
4.	Financial intermediaries
5.	Real estate agencies, rental and commercial activities
6.	State management and defense, mandatory social security
7.	Education
8.	Health and social services
9.	Foreign organizations and bodies

According to the 4-th article of "The Commercial Code of Iran" enforced in September 1987, a public company is a defined organizational entity which has been incorporated in the form of a corporate legal body, or nationalized or expropriated in virtue of the court's decree and identified as a public entity with more than 51% of its whole capital owned by the government. Generally, the public companies may be categorized in two main manufacturing and service providing groups which, in turn, are subdivided to more specialized groups according to their statement of mission, nature of activities and dependency to the relevant ministries. The number of those companies, banks, insurance companies and private not-profit institutions affiliated to the government, as mentioned in the 2007 National Budget Law, amounts to 512 companies.

All manufacturing and service providing companies and industries, either profit-making or non-profit, are predestined to determine the price of their finished goods and services which, in turn, influenced by the internal and external factors of these companies. The internal factors include the outlined policy and

integrated elements of marketing and company's costs. The external factors are the nature of the market and demand, current competitive condition as well as involved intermediaries. The pricing of goods and services is a multi-dimensional process which is affected by the product, profit margin, interaction with the customers and applied final cost accounting systems. The concept of price and pricing is considered a ubiquitous and universal matter. According to Katler, the price is simply a suggestion or an experience for testing the market pulse (Katler, Phillippe, marketing principles – 10-th edition). The managers of the industrial sectors do constantly have grievances about the challenging nature of the pricing of their industrial products and do not consider it as an opportunity for scaling up the profit level, but as a tedious work. These managers argue that since the prices are determined by the market and supervisory authorities they are unable to manage their intended and proper prices; instead they are forced to adapt themselves to the present situation.

However, the main questions remain unanswered, which are: "what kind of relationship there is between the costs accounting and method of goods/services pricing?"; "What are the organizational obstacles restricting the pricing by the companies?"; "What sorts of problems the industrial companies are facing the area of global-scale pricing?"

One important aspect of the industrial pricing process at these companies is the effect that their internal systems put on the pricing process. This is evident in the coordinated or uncoordinated situation among the organizational sub-systems. Three researchers: Lanchioni, Shawe and Smith (2005) concluded that the pricing strategy of an organization is the product of what is programmed by the financial managers of the organization. For example, they proposed the finding that only 5% increase in the price of a specified industrial product may give rise to the increase in the company's profit rate by 22% (Lanchioni, 2005). They believed that the pricing is a very difficult process, because so many environmental factors like political, economic parameters affect it. According to another research undertaken by these three researchers on the leading companies in the USA' market they concluded that the main organizational unit which prevents the pricing process is the financial and accounting departments. However, the present study is directed mainly toward the examination of the situation of the pricing systems used by the public companies. Such companies need to act within framework of the approved laws and regulations and apply a proper cost accounting system on the one hand and are obliged to determine and notify the cost value of the finished goods and services.

*Accounting System:* An accounting system is a part of an overall (unified) system in which all open systems are affected mutually by the environmental factors such as economic, social and other parameters. As for the impact of the environmental factors on the accounting systems, we can mention the appearance of the inflation accounting from 1970s onward, or the changes in the tax, commercial and banking regulations and their impact on the data, processing of them and preparation of financial statements according to the occurred changes.

### 2.1. Theoretical Framework

*Accountancy* is the process of communicating financial information about a business entity to users such as shareholders and managers. The communication is generally in the form of financial statements that show in money terms the economic resources under the control of management; the art lies in selecting the information that is relevant to the user and is reliable. (Elliot, Barry & Elliot, Jamie: Financial accounting and reporting, Prentice Hall, London 2004)

The history of accounting dates back to 7000 years ago. (Friedlob, G. Thomas & Plewa, Franklin James: Understanding balance sheets, John Wiley & Sons, NYC, 1996) Today, accounting is called "the language of business" because it is the main mean for reporting financial information about a business entity to many different groups of people.

*Financial accounting:* In the 19-th century, the development of joint stock companies put special emphasis on the financial accounting, with the aim of providing more reliable and complete information to the company partners (banks, vendors, financial analysts, economists, government agencies, shareholders and others) in the form of publically available financial reports. This development resulted in a split of accounting systems for internal (i.e. managerial accounting) and external (i.e. financial accounting) purposes, and subsequently also in accounting and disclosure regulations and a growing need for independent attestation of external accounts by auditors.

Due to the various needs of the users of the financial reports, the presentation of financial accounts is very structured and subject to many more rules than management reports. One of those commonly rules is the application of the accounting standards.

At present Iran Accounting Standards are issued, updated and their application are supervised by the Iran Auditors Committee. Since 2001, the application of those standards by public companies is a requirement of law. It is worth to mention that the private sector accounting standards are currently under development. And, even though, each of the National Accounting Standard of Iran makes a reference to the relevant International Accounting Standard, but the

National Accounting Standards need further developments.

The increased attention toward the financial accounting, anyway, has never caused careless attitude toward the requirements of the managerial accounting reporting. The market competitiveness, especially regarding cost items recording, reduction in production costs and finding the potentials for increasing profitability, has made serious requirements, via which parallel to the financial accounting, the cost accounting has also undergone systematic processing and recording.

During the last two decades, the managerial accounting has been representing as a separate branch of economics. And in the applied economics, until today, it is still in the process of formation. Hence, it is not occasionally, that both in the practice and theory, the managerial accounting is not considered as a separate science: not being isolated from the cost accounting.

At the beginning of the 20-th century, the cost accounting finally has gain much importance and set in the accounting practice. It was closely related to those days, when the standardized costs were started to be introduced by the companies toward finding out the actual cost variations from the planned costs, reasons behind them and taking corrective actions to eliminate them. The managers, periodically analysed those variations, appraised the impact of various factors on them and made operational decisions regarding the ways to find out negative variances from the planned costs. It was just at this stage, that the cost accounting, which was considered as a tool representing the cost flow information, started gradually to be appeared as managerial accounting. The cost accounting is an important tool under the custody of the manager, which helps in planning and supervising the costs and analysing the obtained results.

Recently the cost accounting has gained much importance than before among Iranian manufacturing companies, especially with regard to the government use of the direct economic regulatory tool of subsidizing policy. The subsidizing policy in the Islamic Republic of Iran affects differently on the market with the participation of the public companies. From one side, it helps increasing the said sector profitability and competitiveness, on the other hand, this policy motivates the market via indirect ways: especially by means of setting higher mark up payments on the product prices. And, as a result of subsidizing, the real pricing is affected, hence, it is necessary to record the amount of subsidies granted in connection with the costs of products and services by way of managerial accounting.

Toward this end, in order to better understand the characteristics of the production unit and their

reporting, it is necessary to get familiarity with the flow of their activities, costs and the variations from the defined standards. It is worth mentioning, the purpose of variance analysis is to find the reasons of inefficiencies in the activities of the production unit.

In the standardized cost accounting system, there are a wide range of applicable norms and standards. In the diagram below, there is shown the flow of information re variations from the standardized costs in the cycle of production (material purchase and production related activities) and selling stage (the realization of the produced goods) (Fig.1)

The standard cost approach is based on the selection of standards, which are:

- Basic norms,
- Ideal norms,
- Accessible norms,
- Current norms.

With regard to these, the accessible norms are applied in the standard cost accounting. And during the analysis of variances, by comparing them with the current norms, more reliable and effective information is obtained. In fact, the industrial accounting or cost value accounting is a very important tool at the manager's disposal to help them plan, control, supervise and analyze obtained results. According to Shabahang R., due to negligence of the principles and theories of the industrial accounting and its valuable outcomes from its execution, the involved authorities, factory owners and industrial organizations' managers encounter always numerous difficulties in the financial fields and, even, bear a heavy and irreparable loss which, in turn, is likely to lead to the decline and dissolution (bankruptcy) of the organization. (Shabahang R., Management Accounting, Tehran, 2001)

Current accounting systems of costing are utilized to collect information and make decisions based on those information. Modern operation phenomena and significant ABC effects distinguish the activity based accounting system from the traditional system. More over, it will make sense considering all the cost components of manufacturing process as well. Therefore, the prices of produced goods and services instead of being set automatically, should be determined by the manufacturing units: by taking into consideration all the cost centers involved in the production process on the basis of activity based costing method (ABC). It will contribute not only to the creation of healthy competitive environment (considering the differing costs of the produced goods and services set by the private sector), but also to regulate the prices by setting them via the production costs incurred.

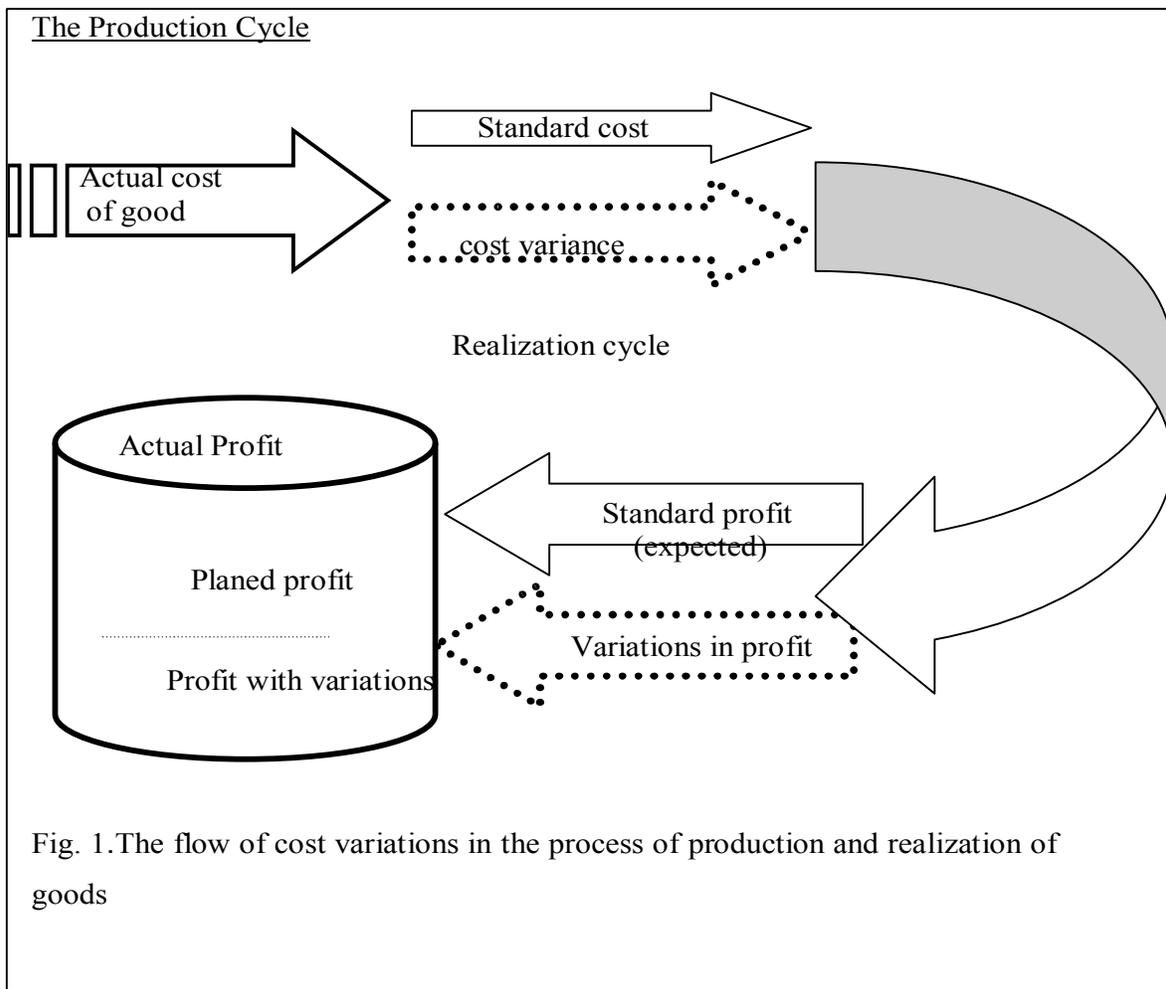


Fig. 1. The flow of cost variations in the process of production and realization of goods

### 3. Research Objectives (aim and problems to be solved)

The aim of this research is the development of the cost accounting system of the production and service companies with state shareholding in the Islamic Republic of Iran: along with the formulation of a new model for planning and calculating the final cost of goods and services produced.

Thus, toward achieving the set goal, some problems should be addressed, which are as follows:

- A) Determination of the applicability degree of the cost value accounting system adopted for establishing the price of goods and services at different companies.
- B) Analysis of the cost accounting systems for goods and services within framework of the lines defined under the budget law<sup>1</sup>.
- C) Determination of an applicable cost accounting system and approach which enable to:
  - Manage and monitor the incurred cost,
  - Establish the updated final cost, and
  - Estimate the final cost-price.

<sup>1</sup> According to local laws and decisions, a considerable portion of the production (such as gas, electricity and oil processing products and services) is held by the state sector. Thus, one of the issues under study is disclosure of the cost-pricing policy for the produced goods and rendered services under the budget law by the companies with the monopolistic power.

Also, considering that according to the current laws and regulations the major part of the industrial production and services such as gas, electricity and petrochemical supplies are provided by the public sector, in relation to the aim of the research, it is of special importance to examine the accounting system adopted for determining the final cost of the monopolistic production and services sector which requires most industries to supply the goods and services of those companies under the provisions of the budget law.

Thus, by addressing those problems, it is hoped that unlike the automatic pricing approach of the present companies and organizations, which are influenced by the legally appointed committees, councils and governmental authorities, as well as, the weak logical relationship between the final cost and determination of produced goods and rendered services, the utilization of proper final cost calculation systems and methods will contribute to obtain the actual prices, as a result, the competition between the state and private sector will be both transparent and functional.

**4. Research Subject and Object:** The research subject is the cost accounting system, their supervision, the identification of final cost prices and the laws and regulations related to the budget system. The subject of the research also includes the quantitative and qualitative aspects of the economic events and procedures.

The object of research is the service sector: a whole system including its branches in both small and large governmental companies (which operate as the specialized mother companies with a lot of subsidiary companies of the manufacturing and service provision sectors. For checking and completing the related questionnaires you are welcome to the principal offices or their related directorates in Tehran). Thus, the research object includes the activities of the public companies that are engaged in the production of goods and services like energy carriers (gas, oil), agricultural and natural resource management, trading, mine exploration, rail road transportation and insurance companies during 2006 – 2010 period.

#### 5. Hypotheses

*Main Hypothesis:* The present cost accounting system in public companies is not effective in determining the prices of produced goods and services.

*Subsidiary Hypotheses:* In order to study and identify the proper methods for developing a favorable cost accounting pattern and system the following subsidiary assumptions of the research were investigated:

- 1- The proper cost accounting system does not conform to the implementation of the budget laws and rules.

- 2- The present cost accounting system does not follow the accounting principles and standards.
- 3- The accounting system of the comptroller is not in compliance with the goods and services cost accounting system.
- 4- The cost accounting system for state-provided goods and services does not lead to the determination of the final costs.

#### 6. Research Methodology and Sampling

The purpose of selecting a research methodology is to help the research establish a method that is more likely to direct the research toward the probable answers in an easier and more accurate way. The adopted methodology of the research depends on the targeted goals, nature of the discussed subject, available facilities and resources. (Levine & others 1999, P 45). The research is a process through which one can explore the unknown areas and get some information about them. According to the process, the manner of gathering evidences and proofs and their transformation into factual findings is termed as "methodology" (Khaki, 2005.)

Considering that the research is to deal with the examination of the status quo and identification of the subject pattern of the research using paper documents and available literature and with the gathering of information from the experts and elite society of the field it is categorized among the survey-descriptive studies. Of course, some analyses employ scientific research approaches.

The methodology of the research includes the 4 stages:

*Stage 1.* The initial question; this stage tries to find an answer to the question that if the present final cost accounting system applied by the large governmental companies and industries are effective, and if they are able to determine the real final cost of the produced goods and services.

*Stage 2.* The exploratory studies: examination of the available literature and face-to-face interviews. *Stage 3.* The construction of an analytical model; The assumptions and analytical model are designed on the basis of the relations among the assumptions.

consisting mainly of managers and accounting department staff of the companies under study.

*The data analysis:* the gathered information are processed and a comparison between the obtained results and the expectations from the proposed assumptions is made. If the degree of the deviation is low it can be concluded that the assumption is confirmed. If this not the case the roof of the deviation need to be established as to reach a conclusion in proportion to the present conditions.

*Sampling :* Research covers separate public companies categorized by their size mainly in two

groups of: 1) Small sized companies involved in manufacturing and service provision and 2) Middle - Large companies. Thus, the statistical population of this research consists of 100 companies that were chosen from 20 specialized mother companies which are consisted of 389 sub-dependent. And the sampled respondent size for survey purpose consisting mainly of managers and accounting department staff of the companies under study were 100 people.

### 6.1. Data Collection Method

For data collection purposes, in this study a set of descriptive nature questionnaires (both closed and open type) have been designed and used. The questionnaires have contained 30 questions all were addressed by the sampled respondents. The questionnaires before being used were tested for validity and reliability.

### 6.2. Data Analysis

The data analysis have been done via comparative tables, ANOVA (F-test), as well as Spearman's correlation coefficients and Binomial test methods were used. The analysis have been implemented by the SPSS statistical software.

### 7. Testing Hypotheses

*Main Hypothesis* - The present cost accounting system in public companies is not effective in determining the prices of produced goods and services.

Table 2 shows, an amount of Sig level that is exceeding the  $\alpha=0.05$  premise level. It means, that the cost value in the companies under study is mainly determined based on personal taste of the management and the economic and political conditions prevailing in the country and etc. This means that the hypothesis is not rejected, therefore “ The present cost accounting system is not effective in determining the prices of produced goods and services.”

Table 2: ANOVA- Variance analysis

		Sum of Squares	df	Mean Square	F	Sig.
Cost Accounting SYSTEM	Between Groups	.058	2	.029	.188	.829
	Within Groups	10.479	68	.154		
	Total	10.537	70			
STANDARDS-accounting and auditing, and principles	Between Groups	.125	2	.063	.271	.763
	Within Groups	15.685	68	.231		
	Total	15.810	70			
ACCOUNTING	Between Groups	.387	2	.193	.699	.501
	Within Groups	18.823	68	.277		
	Total	19.210	70			
DETERMIN-cost-price	Between Groups	.429	2	.215	.820	.445
	Within Groups	17.812	68	.262		
	Total	18.242	70			

Besides, the gap emerged as a consequence of the government intervention in pricing, is mainly covered with state financial support: via subsidies, which in its turn further affects the indifferent attitudes toward cost price accounting systems in underlined companies. Therefore, with a 95% confidence, it may be concluded that the present cost accounting system in state organizations is not effective.

#### *Secondary Hypothesis:*

1- Cost price accounting system does not have coordination with enforcement of the budgetary laws and regulations.

The obtained results from the related question as shown by table 3 indicates that more than 70% of the respondents have mentioned the option of  $\leq 3$  in answering the said question. And by considering the Sig amount = .000, which is less than  $\alpha = 0.05$  premise level, it may be concluded with

95% confidence that the “current cost price accounting system does not comply with the enforcement of the budgetary laws and regulations”, and therefore the mentioned hypothesis is confirmed.

Table 3: Binomial Test

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Cost price accounting SYSTEM	Group 1	<= 3	66	.70	.50	.000 <sup>a</sup>
	Group 2	> 3	28	.30		
	Total		94	1.00		
STANDARDS accounting and auditing	Group 1	<= 3	74	.79	.50	.000 <sup>a</sup>
	Group 2	> 3	20	.21		
	Total		94	1.00		
ACCOUNTING	Group 1	<= 3	73	.78	.50	.000 <sup>a</sup>
	Group 2	> 3	21	.22		
	Total		94	1.00		
DETERMIN cost price	Group 1	<= 3	85	.90	.50	.000 <sup>a</sup>
	Group 2	> 3	9	.10		
	Total		94	1.00		

a. Based on Z Approximation.

\*\*\*- It seems that cost price of the goods and services in chosen firms is not based on usage and utilizing the accounting system and observing the principles and standards of industrial accounting. Analysis of these obtained results represents this point that in these firms the direct interferers of the government and legal and supervisory departments in determining the cost price are more effective than the other factors which are in consideration of industrial accounting system. Therefore, the secondary hypothesis of the research that says “desirable cost price accounting system does not have coordination with enforcement of the budgetary laws and regulations” is being confirmed, In the other word the cost price accounting systems of goods and services does not have coordination with enforcement of budgetary laws.

2- The existing cost price accounting system does not follow the accounting standards and principles.

Table 4: Statistics – on the application of accounting standards and principles by the present cost price accounting system

	N		Mean	Median	Std. Deviation
	Valid	Missing			
Cost –price Accounting System	94	0	2.87	2.85	.384
STANDARD-accounting - auditing	94	0	2.71	2.71	.485
ACCOUNTING	94	0	2.62	2.55	.517
DETERMIN-cost-price	94	0	2.50	2.57	.502

Out of 94 respondents, all have replied to this question: without missing and fully provided with answers (Table 4). And the results of analysis of those answers have indicated a variance exceeding  $\alpha=0.05$  premise level (error/variation level). It means that the cost price in the companies under study is mostly determined based on personal taste and also by considering to some special economical condition and political conditions of the country; and in some cases it is determined in order to encountering with national boycottings, and does not have much conformation with standards of cost price accounting systems and accepted industrial accounting principles. Out of 94 respondents, all have replied to this question: without missing and fully provided with answers (Table 4). And the results of analysis of those answers have indicated a variance exceeding  $\alpha=0.05$  premise level (error/variation level). It means that the cost price in the companies under study is mostly determined based on personal taste and also by considering to some special economical condition and political conditions of the country;

3- The comptroller accounting system does not have coordination with cost price accounting system of goods and services.

4- Governmental cost price accounting system of goods and services does not lead to determination of the final (actual) costs.

\*\*\*- Cost price accounting system is an applying scientific system that based on it, one can calculate the cost price of the goods and services in the format of current, stable, and open expenses by using special industrial accounting formula. Because of this, dealing with it should be done within paying attention to the factors which are interfering in goods production. If there are some interfering conditions in determining the price of the goods except the cost price calculations, one can not do anything about the process of investigating the cost price of goods based on scientific approaches. Therefore the hypothesis of research based upon that "Comptroller accounting system does not have coordination with cost price accounting system of goods and services", was been confirmed by the %95 of confidence. In other word, it can be said that the existed accounting system does not have coordination with cost price accounting system.

\*\*\*- In determining the cost price of goods and services that is represented by chosen firms, the cost price of the raw materials, energy transporters such as gas, petrol, etc do not specified clearly; specially that those raw material of these goods are naturally existed in our country and there aren't much expenses for extracting them. Because of this reason, the cost price of these

goods in contrast with other countries, specially those countries which do not have natural raw material, by considering and subtracting the raw material's price is much lower; whereas the declared price by the government for these kinds of goods and services is so much more than their extraction and refining expenses. And even in some cases the cost price of these goods is more expensive than their price in those countries which do not have raw materials. Thus the interfering of the government in determining these prices in not so logical and cost price accounting system of the under-study firms do not represent the actual price of productive goods and represented services. Because of this point it can be said that another by-hypothesis of the research is also being confirmed, the one which says that "governmental cost price accounting system of goods and services does not lead to determining the actual cost price."

By considering this point that the 4-th hypotheses of the research were being confirmed within %95 of confidence, and based on inductive principle it is obtained that existed cost price accounting system of goods and services in governmental firms is not useful.

About 90% of the respondents have chosen the " $\leq$ " option in answering to these questions. And by considering the Sig amount that is less  $< \alpha = 0.05$  premise level, it can be concluded that the third and forth hypothesis are accepted. It means that it is possible to state with 95% confidence that the "accounting system does not have coordination with cost price accounting system of goods and services", therefore the mentioned third hypothesis is confirmed by the absolute majority. More over, it also can be stated with 95% confidence that the "governmental cost price accounting system of goods and services does not lead to the determination of the actual cost price." And the forth hypothesis is confirmed as well.

*Another finding of the research:* The relation between organizational position and hypotheses

To investigate this point that what answers are given to the hypotheses of the research by the different organizational positions, T-Test (ANOVA) examination is being used. By paying attention to the table 6 one can see that validity of the examination for budget variable, standards variables, under governmental control accounts variables and determining cost price variables have been more than 0.05. Thus there is no meaningful difference between different educational levels and response which have been given to the hypotheses. In other word it can be obtained that there is no relation between the educational level and answering the hypotheses of the research.

Table 5: Binomial Test – The role of the controller accounting system with regard to determination of the goods and services cost-price

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Cost Accounting SYSTEM	GROUP 1	< = 3	66	0.7		-
	GROUP 2	> 3	28	0.3		-
	TOTAL		94	1	0.5	0.000
STANDARDS( accounting and auditing)	GROUP 1	< = 3	74	0.79		-
	GROUP 2	> 3	20	0.21		-
	TOTAL		94	1	0.5	0.000
ACCOUNTING	GROUP 1	< = 3	73	0.78		-
	GROUP 2	> 3	21	0.22		-
	TOTAL		94	1	0.5	0.000
DETERMIN-cost-price	GROUP 1	< = 3	85	0.9		-
	GROUP 2	> 3	9	0.1		-
	TOTAL		94	1	0.5	0.000

a. based on Z approximation.

Table 6: F- Test ( ANOVA) -The relation between organizational position and hypotheses of the research

		Sum of Squares	df	Mean Square	F	Sig.
Cost Accounting SYSTEM	Between Groups	.058	2	.029	.188	.829
	Within Groups	10.479	68	.154		
	Total	10.537	70			
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	Within Groups	18.823	68	.277		
	Total	19.210	70			
Cost –price DETERMIN	Between Groups	.429	2	.215	.820	.445
	Within Groups	17.812	68	.262		
	Total	18.242	70			

### 8. Design stages of the automated accounting systems

Some methods and proceedings are adopted for designing and developing accounting systems at separate stages. The stages of designing accounting systems are presentable in six steps as follows:

- Identification of (cost) accounting system(s),

- Analysis and assessment of (cost) accounting system,
- Design and development of new: automated accounting system,
- Execution of new cost accounting system,
- Inspection and follow up testing of new cost accounting system,

- Technical maintenance of cost accounting system.

In some cases, these stages are integrated into each other in such a way that their separation, actually, is impossible. In some other cases, the last stage of the accounting system designing i.e. accounting system maintenance may return to its first stage i.e. accounting system identification, necessitating the collection of further information and more detailed identification. (Goldratt Elyahu m, "cost accounting: the number one enemy, proceedings of 20th Annual apices conference. Oct 1983.)

### Conclusions

One of the main features of healthy and competitive economic system is the determination of the cost value of the products (goods and services) based on the actual costs incurred on their production. Toward addressing that important target, logically operating cost accounting systems are used by many organizations. But contrary to the effective application of cost accounting system, in our country the pricing process is affected by the existence of certain circumstances that are as follows:

A) The price of some goods are set lower than their actual cost values; for example, the cost value of some products called "energy carriers" including gas, petrol, gas oil etc is much higher than the price offered to the public. In such case, the government finances the arisen gap (as a consequence of adopted pricing approach) in the form of subsidy. This way, the considerable part of the national credit resources which have been originally earmarked for developing economic infrastructures and national growth is spent on providing subsidy to certain companies. Here, the important issue is related to the fact that the "energy carrier" products play an essential role in setting price for other kind of produced goods regardless of their cost value. Thus it may be concluded by saying that the low price of the energy carriers not only impacts but also makes it difficult to correctly calculate the real price of other goods and services produced within the economy.

B) The enforcement of some laws and regulations and the monopoly power possessed by some public companies have resulted, in high difference between the prices set for the finished goods and services (offered by those companies) and their actual cost value. For example, the price of the in house produced cars is much higher than the cost value of their production.

The government participates in the economic relationship based on the legal and administrative drivers. On legal level, government is the main authority for enforcing the "rule of game" and

legislations for economic affairs as a whole. Therefore, through enacting specific laws and regulations and by imposing heavy custom duties for the imported similar products, the government prevents the competitiveness of the market environment. More over, the government intervention causes the escalated price differences because of indifferent attitude toward the low quality of domestic products in general. On the other hand, the government intervention in determining the price of goods and services produced by the public companies stimulates the creation of special economic conditions within the country, so that certain decisions are just made according to the political status quo or as a reaction to the imposed international sanctions.

Thus, such interventions and the ineffective application of the industrial accounting system have caused the emergence of a deep gap arisen between the price of produced products and their actual production cost. As a result, from one side the consumers are affected: by paying higher prices, on the other hand, the continuous flow of subsidy out of state budget is directed to one certain sector only: adversely influencing on the remaining sectors of the economy because of unfair distribution of state budget.

In our opinion, the government must apply the administrative tools within limited framework, otherwise, the market competition will be substituted by administrative rules and orders. By the way, according to the economists, the role of the government in the distribution of core relationships must be considerable, on the other hand, its participation in the production and consumption area must be the least. Otherwise, by regulating the market relationships, just the later will be affected adversely.

According to the research findings, the studied companies need to be governed by a series of approved laws and regulations via using proper accounting system (called "National Cost"). Besides, the determination of the cost price of the produced goods and services must be carried out in a scientific approach toward realizing the mission of accountancy as an informative, planning and supervising body and predicting the prices, as well as the increasing fluctuations thereafter, and simultaneously controlling the expenses and revenues.

### Recommendations

Based on the above mentioned reasoning, the following recommendations are made:

1. Integrating the cost and financial accounting system and ensuring information transparency via application of "National Cost" complete accounting package.
2. Using activity based costing method (ABC), which will enable to enhance the efficient use of limited resources.

3. Enhancing the role of Managerial Accounting especially, with regard to revealing the causes of variations by using special accounts. And ensure targeted use of resources and rational distribution of state budget. Keep proper paperwork of variance analysis for future review and follow-up.

4. Applying the International Accounting/Auditing Standards by considering their completeness, the world globalization and our country's request for membership with WTO.

5. Enhancing the scientific understanding of staff and management team regarding resource usage in creating economic values by arranging periodic attestation and qualification examinations.

6. Enforcing mandatory application of Legal Acts and relevant Standards by all public companies, as well as the flow of transparent information on behalf of protecting the interests of the users of financial statements.

It is expected that the research results will contribute enhancing the effectiveness of the state cost accounting system in public companies, the creation of competitive market and steady development of private sector as well.

#### Limitations to Study

Like any other research, the present study has encountered some limitations some of which are presented below:

- 1) Because of the subject of the present research (examining the presence or lack of goods/services cost accounting systems in different companies and industrial units) and due to the use of a different pricing system from that applied by others, it was impossible to compare the used pricing methods to each other.
- 2) At the data collection stage, in some companies, there were different financial positions and sometimes, the accounting operations were carried out under supervision of the Board of Directors, managing director or business manager; therefore, the exact determination of the statistical society was impossible. Due to such limitation and information about the company the statistical society was defined in a wider range.
- 3) At the questionnaire completion stage, in some cases, the managers used to postpone the completion of the distributed questionnaire form or assigned the duty to others who need to make their presence at the location of the company to give their responses for getting more precise data. This required more time and cost.

- 4) In some cases, it was not easy to get an access to the present accounting systems of the selected companies or those laws for determining of the goods and services provided by the public companies, but instead they were considered as classified documents. To get an access to such information required more prearrangements and time.

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#### References

1. Anthony Robert N. and James S. Reece Accounting: Tax and Cases, 8<sup>th</sup> ed., Richard d. Irwin, 1989, pp55-56.
2. A. dolf H. Enthoven, Economic Development and Accounting, Journal of Accounting, sixth Edition August 2006. pp64-66.
3. ALI.G, Executive codes of article 144 of 4<sup>th</sup> Development Plan Act, Management Accounting Publication, 2005, PP27-28.
4. Al-Turki & Duffuaa. Salih- Performance measures for academic department. The International Journal of Educational Management 2003, pp20-21.
5. Azizi, A, Process of budgeting, publication of state management (2004), PP56-57. 6-Bescos, P, L. and Mendoza, G, "ABC in France" Accounting Industrial, (April 1995), pp, 33-41.
6. Bessembinder. Hendrik, Maxwell. William, Venkataraman. Kumar. Market Transparency and Institutional Trading Costs. (2005). PP63-64.
7. Cecil, Gillespie. Accounting Systems Procedures and Methods, 3<sup>rd</sup> ed., Prentice Hall, New dethi INC, 1985, pp, 122-123.
8. Caruthers, Bruce G., & Esplanade, Wendy Nelson, Accounting for Rationality: Double-Entry Bookkeeping and the Rhetoric of Economic Rationality, American Journal of Sociology, Vol. 97, No. 1, July 1991, pp. 40-41, 44-46
9. Cooper, R, "The rise of Accounting-Based Costing-Parifore," Jouinal of Cost Accounting, (spring 1989), pp, 38-39.
10. Cokins, Gary. "Activity Based Cost Accounting" Mc Graw-Hill ompanies, Inc, 1996pp, 40-41; 81-82.

11. Chakravarthy, B. S. & Doz, Y. "Strategy Process Research: Focusing on Corporate Self-Renewal", *Strategic Management Journal* (1992), vol.13, Special Summer Issue, pp.5-14.
12. Chung, H.F.L. "International Standardization Strategies: The Experiences of Australian and New Zealand Firms Operating in the Greater China Markets", *Journal of International Marketing* (2003), vol.11, Iss.3.
13. Claycomb, C, Germain, R., & Droge, C. "The Effects of Formal Strategic Marketing Planning on the Industrial Firm's Configuration, Structure, Exchange Patterns and Performance", *Industrial Marketing Management* (2000), vol.29, pp.219-234.
14. Delvin, J. & Ennew, C. T. "Understanding Competitive Advantage in Retail Financial Services", *International Journal of Bank Marketing*, vol.15, pp73-82, 33
15. Denison, D. R. "Bringing Corporate Culture to the Bottom Line", *Organizational Dynamics*, (1997) (1984), vol.13, no. 2, pp. 4-6.
16. Dimson. Elroy, Mussavian. Massoud. "A brief history of market efficiency." *European Financial Management*. (1998). PP,90-91.
17. Elliot, Barry & Elliot, Jamie: *Financial accounting and reporting*, Prentice Hall, London 2004, ISBN 0-273-70364-1, p. 3
18. Friedlob, G. Thomas & Plewa, Franklin James: *Understanding balance sheets*, John Wiley & Sons, NYC, 1996, ISBN 0-471-13075-3, p.1
19. Heffer, Albrecht, November 2009. "On the curious historical coincidence of algebra and double-entry bookkeeping". *Foundations of the Formal Sciences*. Ghent University. p. 11
20. Mills, Geoffrey T. "Early accounting in Northern Italy: The role of commercial development and the printing press in the expansion of double-entry from Genoa, Florence and Venice" (*Critical Perspectives on Accounting*, Vol. 4 No. 2, June 1993, pp. 113-140)
21. Farzib A, *Public Budgeting in Iran*, Publication of Governmental Management Education Center Tehran, 1997, PP,88-89.
22. Goldratt, Elyahu m, "cost accounting :the number one enemy, proceedings of 20th Annual apices conference. oct 1983, pp111-113.
23. H.Ali and other, *Single article and annotations of the National Budget Law*, first edition, State Organization of Management and Planning, Logistics Dept., Scientific Documents Center and Publication Tehran, 2005 ,PP,101-102, and 2006, Pp 23-24
24. O.GUIN, M, "Focus of Factory with Activity-based Costing," *M. Accounting* (Feb1990) pp44,46.
25. Pourebrahimi, Mohammdreza. *Assessment of efficiency situation of the Iran's capital market. Stock Exchange*, 39 (December 2003), PP 47-48
26. Shabahang, R., *Management Accounting*, Tehran, Research Center of the Auditing Organization , 2001, PP,45-46.
27. Staubus G., *Activity Costing and input-output Accounting*, Richard D.Irwin, Inc, 1971, pp26,27
28. T.Horngren, Charles." *Cost Accounting: A Managerial Emphasis*" Englewood Cliffs, NJ; Prentice Hall, 1997, pp 36-37, 141-144.

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