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Application of Costing System in the Small and Medium Sized Enterprises (SME) in Turkey

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Abstract**—**Standard processes, similar and limited production lines, the production of high direct costs will be more accurate than the use of parts of the traditional cost systems in the literature. However, direct costs, overhead expenses, in turn, decrease the burden of increasingly sophisticated production facilities, a situation that led the researchers to look for the cost of traditional systems of alternative techniques. Variety cost management approaches for example Total quality management (TQM), just-in-time (JIT), benchmarking, kaizen costing, targeting cost, life cycle costs (LLC), activity-based costing (ABC) value engineering have been introduced. Management and cost applications have changed over the past decade and will continue to change. Modern cost systems can provide relevant and accurate cost information. These methods provide the decisions about customer, product and process improvement. The aim of study is to describe and explain the adoption and application of costing systems in SME. This purpose reports on a survey conducted during 2014 small and medium sized enterprises (SME) in Ankara. The survey results were evaluated using SPSS18 package program.

Keywords**—**Cost Accounting, Costing, Modern Costing Systems, Managerial Accounting.

I. Introduction

TRADITIONAL accounting systems that are essential to companies with strategic information fail to provide perform their function quickly reliably in a complex and competitive environment. In the strategic management process, making decisions for objectives is vital for organizations. In strategic management, appropriate answers must be found to questions such as what, why, how, when, where and who. The vital of the decisions to grant the right to provide managerial accounting tools are thought to be contemporary in the management process. In recent years, kaizen costing, target costing, product life cycle costing, total quality costing, activity-based costing, just-in-time costing and value engineering have emerged as new approaches.

Kaplan and Cooper describe cost systems in four stages. According to these writers, at the present time some firms are on the first stage and the systems have missing features. They provide insufficient information for financial reporting purposes. There may even be a lot of incorrect information. Even though they are big companies, they still continue to use the old and inadequate cost systems. Although the second phase cost systems are compatible with audit standards and suitable for the financial reporting needs, they give limited information to the relevant contacts. Product costs are calculated incorrectly.

The third stage shows activity-based cost systems. Activity-based cost systems show the price of products, services and customers' costs and operating costs with the costs of providing accurate information about business processes. Control and learning systems offer new and timely feedback to employees whilst at the same time solving their problems and helping to improve their activities. In the fourth stage cost systems are no longer regarded as integrated systems. At this stage the systems implemented when the budgeting and planning administrator provides the maximum levels of correct decision making are shown.

Located in the third stage in Europe, activity-based cost systems applications, preliminary surveys are being made for the 1990's. In the United Kingdom the first activity-based cost related to the adaptation of the system of the studies have been conducted [1]-[3]. In these studies, the average application rate was around 10. In their work among 187 companies in the United Kingdom, they saw that the level of Activity Based Costing (ABC) utilization rate was only 6% [2].

Nearly two years later, Drury and Tayles said that [4] out of the 260 United Kingdom-based companies they examined, only 13% were using ABC. In later studies into the activity-based costing system we see that the application of the rates is higher. Out of the 177 major companies surveyed [5] Banerjee & Kane in 1996 18% were shown to be using the ABC system. The Evan's & Ashworth's 1996 survey showed an ABC system usage tare of 21%, Drury & Tayles 2000 survey showed 23% [7]. In 2001, again in England, Kennedy and Affleck-Graves said in the thousand biggest companies ABC has a stated usage rate of about 20% [8]. In 2008, Al-Sayed conducted a workshop in the United Kingdom [9]. At this time, the survey is being sent to the finance managers and accounting managers.

According to this work in the Industrial Business and financial companies, the activity-based costing implementation rate stays at 10%. Bruggeman's study states that Belgian firms have a 19% ABC usage rate [10]. In Finland it is stated that the application rates are: 6% in 1992, 11% in 1993 and 24% in 1995 [11]. It is reported that the lowest application rates in Europe are in Denmark [12], Sweden [13] and Germany [14]. In the same years in Greece [15], Italy [16] and Spain [17] a research report was produced to show the number of firms who had not accepted activity-based costing systems. Only 35 of the 88 largest Greek firms

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(according to production levels) included in the study record ABC Usage.

An examination of the use of activity-based cost systems in Europe is seen as a batch of application rates in Table I.

TABLE I
ABC APPLICATION RATES IN EUROPE [18], [19]

Author: Date (Publish/Research)	Country	Research Universe	ABC Rate %
[55]	Finland	Industrial Business	0
[11]	Finland	Industrial Business	14
[18]	Sweden	Industrial Business	16
[48]	Ireland	Industrial Business	12
[54]	Ireland		26.30
[58]	Ireland		27.90
[14]	Germany	Industrial Business	3
[59]	Germany		19
[50]	Holland	Food Sector	12
[56]	England	Industrial Business and Financial Firms	6
[46]	England	Industrial Business	4
[51]	England	Biggest Thousand	20
[1]	England		10
[57]	Italy		10
[47]	England		15
[49]	England		15.20
[52]	England		17.50
[53]	Greece		23.50
[41]	England	Biggest Thousand	18

In 2000 a study was made of 88 Turkish industrial companies which implement the ABC method. But 29% of these companies have stated they are working with ABC [20]. In another study conducted in Turkey by Büyükşalvarcı in 2004, 42 banks were examined. It emerged that 60% of the banks do not implement activity-based costing systems. 13% of the banks said that they were implementing pilots of the ABC system, whilst 26% said that they had applied it [21]. In 2005, research was undertaken into the top 500 industrial businesses in Turkey and the results were appraised by the operators of 112 prestigious businesses. According to the results of the work, whilst 51% of enterprises were using traditional cost methods 48.2% were detected as having used an activity-based cost system [22]. In 2011, of 87 Istanbul Stock Exchange registered companies examined in Karcıoğlu and Öztürk's study 58 companies had implemented the ABC method. This method was chosen by the firms who had implemented the most accurate cost control. It is increasingly observed that Turkey has shown an upturn in activity-based costing system application [23].

Primarily because of the lack of traditional cost systems, the consequent descriptions of contemporary cost systems in this study are brief. A survey of Ankara SME applications was evaluated. The SME systems used in Ankara and the reasons for their implementation were determined from a three-part survey. The work of the survey is drawn from responses given by companies regarding the duration of the companies' operating activity in the sector, number of employees, legal structures, the existence of the accounting department, accountants' specialist education and gender, and evaluated according to the operating costs incurred due to systems distribution.

II. CONTEMPORARY COST CALCULATION METHODS

A review of traditional cost accounting methods and management systems in the 1980's, occurred within a time of increased globalization and intensive competition environment changes, and the impact of these changes caused investigations within American industry [20]-[24]. Traditional production methods, based on direct labor hours and overheads were found to be insufficient to allocate, to calculate the costs of improved production environments, and consequently more different and new techniques began to be needed [24]-[25].

Kaizen Costing (KC), Target Costing (TC), Product Life Cycle Costing (LCC), Total quality costing (QC), Activity-Based Costing (ABC), Just-in-Time Costing (JITC), Value Engineering (VE) are the new approaches that were introduced. They are briefly described below:

A. Kaizen Costing (KC)

Kaizen is a Japanese term. It is defined as a method aiming to achieve optimization of standards through gradual, continuous improvement.

The function of the Kaizen costing method is to evaluate predetermined job standards by means of progress checks not to have a stable production process, continuously improve the critical processes by providing non-ripe and open to new product lines continually is to achieve a cost reduction. Budgetary standards are considered to be static standards. If the updated standards are being revised on an ongoing basis in the process of costing and kaizen costs are used as an element of pressure on the workforce to decrement. Kaizen costing purposes, not to exceed her achieve the standard. This objective on the way to the workforce, to reduce costs is being forced to find new ways. Some of the important characteristics of Kaizen costing methods are summarized below [26].

- The focal point of the method is more accurate product cost information is not to obtain, process, cost reduction is to motivate and to inform.
- It is the responsibility of the team, not individuals
- Common or even party, the actual production costs calculated by the employees on the front line, shared and analyzed. Sometimes, cost information, and not by the accounting staff team by collects and prepares.
- Cost information is used by the teams, their production, directing them around, learning and improvement efforts focus on the highest-cost reduction opportunities are provided.
- Standard costs are constantly occurring in the past both real costs cost reduction, as well as in the future, is adjusted to reflect the targeted improvements. This process by ensuring continuous innovation in improving more progress to set a new level.
- Work teams in order to carry out the goals of cost reduction are responsible for producing ideas. Even those

teams cost reduction via self are authorized to make investments that can pay.

B. Target Costing (TC)

Target costing first emerged at the Japanese firm Toyota in the 1960's. "Target Costing" literature spread throughout the United States and Germany, and began to be widely-used in other European countries.

The definition of target costing formulated by Horngren and Foster is as follows. A company will be required to enter a new market. In such a case, competition in the market means that pricing will be effective for this company. If a company wants to become permanent in the marketplace and the company entering the market wants to sustain long term profitability against the competition it is required to estimate costs. This is referred to as "target costs" and is defined as a method of costing focused on foreign markets [27].

Target costing is defined as an expected profit rate for goods or services that will save a cost level defined as bearable, exhibiting a consumer-oriented understanding, considered providing competitive advantage, and because costs are based on the principle of managing previously described as a method [28]. The target costing method's objectives can be summarized as follows [29].

- The business is completely harmonized with the market,
- Linking strategy to research and development activities in the market,
- The product's project phase supporting the management of the cost of the product,
- Cost targets are constantly checked to ensure dynamic cost management,
- Business objectives are directly influenced by the needs of the market.

Target costing has six basic principles. In brief: price, customer acquisition, product project forward planning, interdepartmental cooperation, the taking into account of product life period so as to minimize costs, the value of membership of chain (suppliers, distributors, vendors, etc.) is also included in the explanation [30].

A description of the properties and principles of target costing is necessary for a successful application, taking into consideration the circumstances; the implementation of teamwork; the application of cost accounting by accounting management, employment of costing engineers in industrial engineering, manufacturing engineering with a focus on the culture of the dominant supplier, the inclusion of suppliers' product development process, the concurrent design of products and processes, cost reduction efforts to be directed according to the wishes of customers, design simplicity and measurement, continuous change and the expression of commitment to an open form of organizational culture [31].

C. Quality Costs (QC)

The meaning has changed in recent years; the cost of quality is expressed. Before the 1980s, the work of a quality assurance department work was perceived as costing. Re-processing, correction, testing and warranty costs nowadays commonly expressed as design, implementation, operation and the quality management system's maintenance accepted as seen. Quality costing is used in the manufacturing industry today, and widely-used by basically all sectors (service industries, commerce, public health, transportation and distribution, tourism, finance, etc.) [32]. Dale and Plunkett summaries four important quality costing points 95% of general quality costing failure are emerging in evaluation situations. It is considered as a very large cost. Unnecessary and avoidable costs can make goods and services more expensive. Large and significant amount of avoidable costs (usually unnecessary land investments operations) and it is unknown how they can be avoided in most companies

D. Value Engineering (VE)

The term Value Engineering was invented during World War II by Lawrence D. Miles of General Electrics. It was expressed as part of research into how to utilize limited funds most efficiently during wartime. Miles examined either the project, service, or process objectives; the functions analyzed; the period of completion and costs to be reduced and the ways of improving the effectiveness of each step were tested for team-oriented, technically designed value engineering. VE is useful for solving problems, and is regarded as a systematic tool. Value engineering phases are briefly described as follows [33]:

- ***Selection Phase:*** The correct project, theme, scheduling process or items are selected.
- ***Investigation Phase:*** The official background information, technical introduction reports (traffic, soil, hydraulic, environmental, etc.) and analysis of the field data obtained and how the function is performed.
- ***Speculation Phase:*** Creativity is encouraged. Alternative suggestions and brainstorming solutions are made.
- ***Assessment Phase:*** Alternatives and technical evaluations are analyzed.
- ***Development Phase:*** Technical and economic support data is developed, targeted feasibility studies of ideas are made, as well as long-term recommendations as well as implementable workarounds, are created.
- ***Presentation Phase:*** At the end of the study, an oral presentation, a written report or workbook, the findings and recommendations of which are presented by the value engineering team.
- ***Application Phase***: Value engineering recommendations formulated by the team managers of the section by a fair and thorough evaluation in which responses and recommendations are taken into account. An implementation plan is prepared.
- ***Control Phase***: Value engineering program results and accomplishments and management personnel as requested by the appropriate statistical analyses are compiled to create a registry system.

The value engineering organization takes some areas to show that the importance of functional activity is undeniable in increasing contributions. Value engineering contributions are expressed as follows [34];

- Design requirements for improvement;
- Accelerating the process of product development;
- Production cost and risk reduction;
- Suggestions for development of earnings;
- Increasing its market share;
- To seek solutions to difficult and perplexing problems;
- The benefits of teamwork and the participation of employees;
- Quality and productivity;
- Operating expenses and reduce costs;
- Finding opportunities for the development and operation of undetected sources to be used in the way that is most suitable.

E. Just-in Time Costing (JITC)

This system is called the Toyota production system. It was a method used by Toyota after the Second World War, a period in which great efforts were made to catch-up with the West's advanced automotive industry. During that time the aim was to increase productivity and reduce costs, amongst other things. Just-in-time production and provision arrangement was later expressed as the automation of the production trial and error method with found applications.

Just-in-time production describes a method of costing in an environment where customers demand high quality goods and services as soon as the new production environment emerges, to reach accord with the agenda [27]. Monden, just-in-time production method describes the approach to producing the necessary quantities of the required products [35]. According to the author the Toyota production method is a way of reducing costs on the basis of profit, not for the purpose of completely eliminating economic inefficiency. There are four kinds of states in production activities that can arise and lead to unnecessary spending. These are [35];

- Excess production resources,
- Greater production,
- Excess inventory,
- Unnecessary capital investments

As excess stock inventory occurs, the need for new stores emerges. New workers are brought to a new store. For every relocation operation forklift trucks are purchased, work is required for stock control; in order to track this demand computers follow each other. All these resource management costs, direct or indirect labor costs, increase overall production costs.

F. Life Cycle Costs (LCC)

Life cycle costing was first implemented by the United States Department of Defense. This study and the support given to operate weapon systems are calculated as up to a 75% share of the total cost. In 1994 an academy-industry conference sponsored by the National Science Foundation of the United States discussed every possible emerging method. Each method in today's competitive market environment is recognized as an effective approach. Adequate consideration is given to each costing method in product lifecycle and in every stage of improvement [36].

Product life cycle begins with the determination of needs and the design, manufacture, customer use, support, and continues indefinitely. This production planning, plant layout, equipment selection, process planning and other similar activities are regarded as a process [37]. The product's planning, factory location, team selection, process planning and similar procedural operations shall be borne by the user, and it will have a direct impact on the marketable product [38].

The life cycle costing process consists of 11 stages, which are briefly described as follows [39]:

1. Phase

In this phase, what will be analyzed and which appropriate financial benchmarks will be established during the life of the project studies are made.

2. Phase

In this phase, creation must take place as alternative examples and situations are brainstormed.

3. Phase

The details of the true yearly branch costs need to be determined and stated.

4. Phase

During this process alternatives and technical evaluations must be analyzed.

5. Phase

During this process the cost details are specified.

6. Phase

During this process annual cost profiles are created.

7. Phase

During this process an aligned schedule is created by simplifying the duration and financial details.

8. Phase

Selecting the Pareto distribution is stated as part of the greater distribution costs.

9. Phase

If maintenance and repair costs are envisaged as 10% of the planned cost, high-cost alternatives are tried.

10. Phase

Error analysis is undertaken in order to correctly evaluate the alternatives.

11. Phase

The preferred project is selected and specifications are provided through charts. The obtaining or process costs are established and stated, and in which areas of usage. The presence of the correct entry, the creation of entry databases, the evaluation of product lifespan costs, and cost factors with achievements and process costs are all established and stated.

G. Activity Based Costing (ABC)

The activity of the business resources of the products consumed, hence the classification on the basis of indirect costs should operate with the concept of mobility and product with indirect expenses depending on the production volume between the direct relationship at a variety of levels without a cost and management. This approach is defined as activity-based costing and in recent years has taken its place in business literature [20].

The ABC method's cost-determining factors have to firstly be determined after which installing operations cost outputs of need to be clarified [26]. To ensure that focus upon specific operations and the reduction of operation costs is clearly maintained; managers become a very important topic. In recent years, the use of activity-based costing management to resolve this problem is emphasized [40]-[41].

ABC's purposes can be expressed as follows. Interest in overall production costs by installing the product more accurately enables more meaningful cost information to be obtained; meaningful profit centers to create and make the product profitability calculation; the ease of making simple and understandable calculations; to provide a good understanding of the accounting and checking environment;-to make products and services that create value by eliminating production costs; to determine and eliminate the activities which are the principal causes of the problem; identify and eliminate problems; to eliminate weak assumptions and insufficient resource distribution costs, to ensure the deployment of correct management decisions so as to procure accurate cost information [42].

The basic concepts utilized in the ABC method are: necessary cost concepts, resources, activity cost pool, cost drivers, and cost objectives. These concepts are briefly described as follows. Operations: if the operation is a function to generate an output, in order to fulfill this, the process will consume resources. **Resources**; in order either for the operations to be applied or costs to be administered the principal source elements of economic cost must be managed. Operational **Cost Pool**: the total operation-related cost. **Cost driver**; defining the measure used in determining the cost of a work or activity. **Cost Object,** the highest cost point, the cause and ultimate goal of the activities is defined [20]-[27]-[43]-[44].

Activity-based costing for the successful implementation of the method; upper management; activity-based costing method to identify realistic and achievable targets in the organization, you must understand the benefits related to the topic. Introduce the method of activity-based costing in the enterprise and the establishment of a project team in order to implement the required measures. Employees' understanding of the contents and application of the ABC application method with regard to business training is crucial for the success of the model. It should be ensured that sufficient resources to enable the application of ABC exist. Enough time should be allocated within working hours for analysis and data collecting. The application of the ABC method application should be kept as simple as possible and should be implemented in the starting phases of the pilot project. Upper management should constantly develop the application through continuous feedback to render its implementation easier [45].

III. Objectives and Research Questions

A. Research Questions

Aim: to determine why firms in Ankara are currently using the application, and the reasons why other firms are not proceeding with it.

1. The duration of the firms' activity, according to the cost distribution.
2. Number of firms' employees, according to the cost distribution.
3. The legal structures of the companies, according to the cost distribution.
4. The changing of the accounting function according to the cost distribution.
5. The required training for the accounting department according to the cost distribution.
6. The gender status of the accounting department's manager, according to the cost distribution. A determination of why companies are implementing a particular costing system relationship.
7. Why companies choose to implement other systems.

IV. Methodology

The reasons why companies are not proceeding with the implementation of cost systems are determined via a questionnaire consisting of 3 parts. The first part of the survey requires demographic information and has 8 questions. The second section concerns the company's reasons for the use of costing systems, and contains a possible 20 answer options for a single classification of closed-ended questions. The third part is regarding the implementation of other cost systems by the company. There are 11 possible answers to the question with a single classification of closed-ended options. Those accounting firm officials participating in this section are asked the most important reason why they do not use other cost systems. Through draft Participants are given 11 possible answer options.

Type item in the process of developing the survey carried out on members of the profession to the spelling field persons views and taking advantage of the theoretical framework of firms are currently using the causes application and cost systems demonstrate the reasons for not proceeding with 5 items created a question pool. Items that are created is given the possible answer options are closed-ended questions are prepared in the form of the classification. As a result of this item pool questions expert opinion research depending on the problem to two views. Then these two closed-ended question possible answer choices to provide expert opinion was taken the validity and scope of required made adding and stickers.

Also, in the survey companies are asked which industry they operate in, the duration of their operations, number of employees, legal structures, accounting department details-and the principal educational status and gender of the accountancy

department's manager. These answers are determined by answering items. So one possible answer, one possible option, 20, 11 2 questions answer option, tipped off that occurs with face-to get demographic information 8 items into for the pilot survey. Survey pilot who served in different sectors for the two companies after receiving permission to charge face to face interviews were applied through. As a result of the pilot survey, the cover page, answer a survey, answering the survey questions and survey period of the directive, in terms of what was studied and the principal corrections required before application has been brought into the final.

A. Population and Sampling

The study was conducted amongst all firms that operate in the Ankara Ostim industrial zone: creating a sampling base of 178 companies. The companies were asked why they either are or not currently using the costing system, together with the associated reasons. The 3-part survey was conducted in June 2014 via face-to-face interviews, with the required permissions applied throughout.

V. Results

Research into the sectors and enterprises which operate cost systems most is shown in Table II.

Used in terms of costing systems; activity-based costing, target costing and quality costs systems are used most by the machine sector; the product life costing system is used most by the food industry; just-in-time costing system is used most by the construction industry.

In terms of the sectors shown in the activity; most product costing exists in the food industry, clothing industry; top quality costing exists most in the furniture industry; activity-based costing exists most in the automotive and machine industries; top quality costs is most used in the construction sector; most activity-based costing, exists in the logistics sector; the communications sector is where the most activity-based costing exists, and the paper industry is where the just-in-time system with the most quality costs costing systems are used.

TABLE II
Operating Sectors and Used Costing Systems

Operating Sector	Costing System						
	ABC (f)	T C (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Food	3	5	7	9	5	2	31
Clothes	1	-	3	-	-	-	4
Furniture	2	1	1	-	1	-	5
Paper	-	-	1	-	1	-	2
Automotive	7	2	2	-	1	2	14
Machine	12	9	18	1	9	3	52
Construction	11	2	5	-	10	2	30
Electric/Electronic	-	2	2	-	2	1	7
Communications	3	-	3	-	-	-	6
Logistics	3	1	-	-	-	-	4
Others	6	7	5	-	2	3	23
Total (f)	48	29	47	10	31	13	178

How many years the firms surveyed have operated in their sectors and how long they have operated the cost systems for is shown in Table III.

TABLE III
Activity Duration and Used Costing Systems

Operating Duration	Costing System						
	ABC (f)	T C (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Under 10 years	28	10	12	5	8	6	69
10-20 years	16	10	13	3	17	4	62
21-30 years	1	6	18	2	5	2	34
31-40 years	2	2	3	-	1	1	7
More 40 years	1	1	1	-	-	-	3
Total (f)	48	29	47	10	31	13	178

Duration of activity: firms with less than 10 years mostly use the activity-based costing system; between 10 and 20 years use activity-based costing with target costing systems; between 21 and 30 years use quality costing systems; between 31-40 years mostly use quality costing; those firms with more than 40 years use activity-based costing, target costing and quality costs are used.

The use of cost systems in terms of employee numbers is shown in Table IV.

TABLE IV
Number of Employees and Used Costing Systems

Number of Employees	Costing System						
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Under 50 People	42	18	42	8	26	12	148
51-100 People	3	6	3	1	4	1	18
101-150 People	1	3	1	-	-	-	5
151-200 People	1	1	-	-	-	-	2
More than 200 People	1	1	1	1	1	-	5
Total (f)	48	29	47	10	31	13	178

According to the number of employees: those with fewer than 50 employees use quality cost systems; activity-based costing is mostly used by firms with between 51-100 employees; target costing systems are mostly used by firms with 101-151 employees; the target costing system is mostly used by firms with between 151-200 employees; mostly activity-based costing with the target costing system is used by firms with more than 200 employees, and all firms use all cost systems equally. Research showing firms' legal structures and cost of systems is shown in Table V.

TABLE V
Legal Constructs and Used Costing Systems

Legal Structures	Costing System						
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
1.Share Company	4	5	2	1	2	3	17
2 Ltd.company	37	20	33	9	22	8	129
3.General Partnership	2	-	-	-	-	-	2
4.Others	5	4	12	-	7	2	30
Total(f)	48	29	47	10	31	13	178

According to the firms' legal structures, the target costing system is mainly used by the share companies while the activity-based costing system is utilized primarily by firms with "limited company" status and general company firms prefer an activity-based costing system.

Research indicating whether the presence of separate accounting departments is related to the cost systems used is shown in Table VI.

TABLE VI
ACCOUNTING DEPARTMENT AND USED COSTING SYSTEMS

Accounting Department	Costing System						
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Yes	16	23	29	3	17	7	95
No	32	6	18	7	14	6	83
Total (f)	48	29	47	10	31	13	178

This shows that enterprises with separate accounting departments use high-quality costs systems, whereas those without separate accounting departments use a system of activity-based costing.

Research made to show the principal training and costs systems use of enterprises with separate accounting departments is shown in Table VII.

TABLE VII
ACCOUNTING PRINCIPAL EDUCATIONAL SITUATION AND USED COSTING SYSTEMS

Educational Situation	Costing System						
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Associate	2	3	7	1	5	2	20
Graduate	26	15	31	4	20	7	103
Master	17	8	5	5	3	3	41
Others	3	3	4	-	3	1	14
Total (f)	48	29	47	10	31	13	178

Systems usage according to the educational situation of the accounting supervisor education: those with pre-degree education mostly use a quality costs system; those with degree-level education use an activity-based costing system; most of those with a level of graduate education use an activity-based costing system.

Research showing the cost system usage status of enterprises with separate accounting departments according to the gender status of the supervisor is shown in Table VIII.

TABLE VIII
GENDER OF ACCOUNTANT AND USED COSTING SYSTEMS

Gender	Costing System						
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)	**Total (f)**
Woman	1	2	5	1	2	-	11
Man	47	27	42	9	29	13	167
Total (f)	48	29	47	10	31	13	178

According to the gender of the accounting supervisor; it is observed that most women prefer a quality costing system, whilst most of the men would use a system of activity-based costing. The cost management systems that the enterprises is surveyed, and their reasons for not proceeding are also investigated the enterprises' reasons for not using the cost management system, Table IX, the reasons why the cost management systems are not used are shown in Table X.

The reasons for cost management systems applications: the activity-based costing system is used most to calculate the sales price of pharmaceutical (original price), to reduce operating costs and the waste which it is used to detect, the target costing system is used to ensure maximum customer satisfaction, quality costs, reduce waste and produce faultless products.

Manufactured Life-Costing systems determine operations costs and are not used to add value Just-in-time focuses on determining profitability.

TABLE IX
REASONS FOR USED COSTING SYSTEMS

Reasons for Using	Costing System					
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)
1. To Determine the Real Costs of Pharmaceutical	9	7	24	1	13	2
2.Cost Management and Control	6	7	20	1	12	3
3. Calculate the Sales Price of Pharmaceutical	11	8	26	1	12	2
4.To Determine the Operating Costs	11	10	19	3	8	1
5 Do not Add Value to the Activities off	6	4	16	3	7	1
6. Stocks Value	8	6	17	-	7	3
7. Ready to Provide Full İnformation about the Profitability	6	8	19	1	8	3
8. Cost Awareness	6	8	19	1	12	3
9. Focus on Profitability	6	8	22	2	17	3
10. Provide Cost Reduction	10	10	20	2	13	5
11.Provide Customer Satisfaction	5	15	21	2	13	2
12. The Costs Before Provide	6	7	17	-	9	2
13.Perform Quality Control	4	10	18	1	10	4
14. Continuous İmprovement Efforts to Reduce Total Processing Time	7	10	13	2	12	3
15. Products Error-Free Produce	10	13	27	2	11	3
16. To Simplify the Production and Manufacturing Process	5	8	18	-	10	3
17.Continuously Reduce Production Costs	6	8	17	-	9	3
18.Measure and Report the Costs as Regular Flow	8	6	23	1	14	3
19. Reduce Waste	11	14	27	1	14	1
20. Reduce Storage Costs	5	9	18	1	11	2

The reasons for the use and non-use of cost systems are examined; satisfaction with the activity-based costing system, one of the most widely used of the existing accounting systems, satisfaction is observed. Target costing system from existing accounting system in satisfaction was not used, quality costs, a lack of most of the system was not used in production technology, Product Life from the existing system of Costing accounting system due to a lack of satisfaction and production technology is not used.

Just in time accounting system that exists in the system of Costing satisfaction it is used with the cause has been identified.

TABLE X
THE INACTIVITY CAUSES

Inactivity Causes	Costing System					
	ABC (f)	TC (f)	QC (f)	LLC (f)	JIT (f)	Other C (f)
1. Satisfaction With the Existing Accounting System	13	8	14	3	10	2
2. Not Appropriate for the Type of Business of Other Systems	2	4	8	1	4	5
3. The Failure of Other System Firms Within the Sector	3	5	14	-	2	3
4. Method in the Application to be Expensive	4	5	8	-	2	3
5. İnformation about the Activities of the Cost Drivers, the Total Difficulty	5	7	11	-	2	3
6. Top Management does not Support	7	6	18	-	3	2
7. Their Systems Do Not Have the Source İnformation for the İmplementation	7	6	13	1	3	3
8. Customer Demands and Expectations, Unfit	8	5	16	-	5	4
9. Employee Education	10	5	13	-	7	4
10. A Benefit of the Application of Other Systems to Believe	6	5	15	2	5	2
11. Lack of Production Technology	12	6	19	3	3	2

VI. CONCLUSION

Developments in production techniques, the increase of technology-intensive production rather than labour, the size of firms, different products are sold to different customers as a result of increasing international competition; the calculation of the unit cost of products of companies constitutes one of the most important agenda items. The importance of activity-based costing to calculate unit cost correctly is seen.

The existence of activity-based costing applications in many European countries before the year 2000 is seen. Surveys indicate that the emergence of a number of different proportions and different from each other in different areas conducting field work in the company is thought to be related. In Europe, despite the start of applications around 2000, there is no clear information on the number of companies that implement this system in Turkey. However a study conducted in 2000 shows that there are companies in Turkey operating the ABC system [20]. The reasons for this are explained in the following way: the activity-based cost method will be applied to firms with different products and different customers who differ from each other in their selling activities, the overall production costs must be more labor costs. One kind of production and use of traditional systems in non-firm diversity of customers is much more common. The activity-based cost method has to be applied successfully and all employees must be included as long as they are staff. The practitioners who are (not) is one of the most important considerations.

Turkey industry development, the strength of the economy, the increasing number of companies abroad, company growth and progress rapidly towards the introduction of contemporary cost systems has been brought about in our country. Research conducted using the activity-based costing system in enterprises, has shown that the rate is 26%. It is understood from the research that the activity-based costing system is most used in the fields of construction and machine assembly. Turkish tax system continues in the traditional methods of application is seen as one of the major factors because the financial statements of Turkish companies must be prepared according to this system. Enterprises that use the activity-based costing system must adjust their financial tables accordingly. This is an additional burden because it appears to be an unwanted situation.

The importance of activity-based cost systems as being among the causes work in Europe as well as Turkey is shown as unknown. The study also shows that modern looking firms that do not use the cost systems (Table X) have the most uneducated employees. For activity-based cost systems to be applied successfully employees require comprehensive training. Qualified practitioners from companies with a good system of accounting will be required to operate the system. At this point, the provision of a degree of cost and management accounting training in containing theoretical higher application and especially contemporary costing systems instruction an important addition to the course content.

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