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QUALITY COSTS AND THEIR IMPACT ON THE COMPETITIVE ADVANTAGE OF INDUSTRIAL COMPANIES: EXPLORATORY STUDY

Zina Adnan Kreem¹, Aabdulwahab Razzaq Alwan Al-Yasar²

Azher Subhi Abdulhussein³

¹Department of Accounting, college of Economics & Administration, university of AL-Qadisiyah,
Iraq

²Department of Environment Management, college of Administration & Economics, university of
Babylon, Iraq

³Department of Accounting, college of Administration & Economic, University of Kerbala, Iraq

¹zенаadnan306@gmail.com, ²Bus.abdulwahab.r@uobabylon.edu.iq, ³azherS@uokerbala.edu.iq

**Zina Adnan Kreem, Aabdulwahab Razzaq Alwan Al-Yasar, Azher Subhi Abdulhussein.
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ABSTRACT

The aim of the current research is to determine the importance of financial reporting on the quality cost of industrial companies in Iraq as a way to increase the competitive advantage of these industrial companies, as well as uncover the relationship between the cost of quality and increase the competitive advantage of industrial companies in Iraq. The current study relied on the descriptive analytical approach, through reviewing books, magazines and periodicals, as well as reviewing previous studies related to the topic. The study also relied on all preliminary data through a questionnaire designed to achieve the goal. The study aims to conduct a survey of industrial companies operating in Iraq for the fiscal year 2016. The research reached a number of results, most notably the success of industrial companies in Iraq in improving their competitiveness and their superiority over their competitors through the cost of quality, which requires the need to improve the quality and performance of available resources, Relying on some methods that represent the most important industrial companies can provide the capabilities that allow them to reach to reduce their production costs, and reduce production costs of great importance to improve the ability of industrial companies in Iraq to compete. the cost of quality is one of the most important means and methods to improve the quality of management and raise the level of its performance in the present era, which some call it the era of quality. It is no longer a luxury that industrial companies and industrial companies aspire to or an alternative to take or leave, but it has become an urgent necessity for the contemporary movement of life, which is evidence of The survival of the spirit of survival in the

organization or institution and has become one of the important issues, because it is a concrete criterion by which work can be mastered.

Quality management is also a natural product of changes in the contemporary economic and social environment and the culmination of continuous development in management and aims to achieve excellence in responding quickly to the desires and expectations of customers after the customer has become the primary axis in the thinking of industrial companies and industrial companies on the one hand, and after the losses resulting from quality loss have become limiting the growth of industrial companies on the other hand, and due to the exit of industrial companies that are not concerned with quality from competitive markets, this has required changing the intellectual strategy of enterprises, and developing executive procedures in a way that helps to understand the problems of quality and confront it, and to suggest logical solutions that depend on sound and correct data and information in a timely manner, which led to increased interest in cost management to obtain correct and accurate data and information, and to change the perception of quality from conformity to specifications to be considered an administration that contributes to reducing costs and improving profits and this evolution. The researchers' interest in their studies agreed to focus on the importance of accounting for quality costs and analyzing their components and what is of importance in quality improvement processes.

Therefore, this research aims to identify the impact and importance of financial reporting on quality costs in relation to the competitive advantage of industrial companies in Iraq and where the competitive advantage has become an urgent need for the survival and continuation of industrial companies, especially in light of globalization, the emergence of large transcontinental industrial companies, and developments in information and communications technology.

Research problem

The research problem can be formulated on the basis of the following question: (What is the role of quality costs to influence the increase in the competitive advantage of industrial companies operating in Iraq?)

Research Importance

The current study derives its importance from the following:

1. The administration needs comprehensive and integrated information on all aspects of performance and the costs associated with it, in a way that contributes to enhancing the competitive advantage in general, and industrial companies in particular.
2. The increasing importance of production costs, and the consequent increase in efficiency in the area of performance evaluation and development used for the institution.
3. Study the industrial sector, as this sector constitutes a basic pillar of national and economic security in Iraq.

Research Aims

1. The current study aims to clarify the relationship between quality costs in industrial companies in Iraq and the competitive advantage of these industrial companies through- :
2. -1Knowing the importance of quality costs for industrial companies in Iraq as a way to increase the competitive advantage of these industrial companies.

3. -2Disclosing the relationship between quality costs and increasing the competitive advantage of industrial companies in Iraq .

Research hypothesis

The study is based on two main hypotheses:

1. The interest of the Iraqi industrial and economic units in the costs of quality and submitting quality cost reports to the beneficiaries leads to an increase in their market share.
2. It is that the interest of Iraqi industrial and economic units in quality costs leads to improved production and increased competitiveness for them in the business market.

Previous studies

This axis includes studies that focused on the costs of quality and the competitive advantage and the most important of these studies :

- A- A study (Al-Bishri 2006), entitled "Financial and non-financial measures of quality costs and their use in evaluating strategic performance". An applied study on the laboratory of heaters and cookers, and the study dealt with quality as a strategic goal and a weapon of competition, and may link between financial and non-financial measures of quality costs n and performance evaluation The strategic through the use of these standards in the balanced scores card, and the study found that there is an urgent need to evaluate the strategic performance of the company, the study sample and for each of the three laboratories using the balanced scores card based on financial and other measures Financial costs for the overall quality.
- B- A study (Vlahvei. 2017) entitled "Quality costs and a decision support model for reducing quality in industrial companies" The study aimed to address the introduction of quality costs in industrial companies. The study aimed to address the introduction of quality costs in the decision support model, which can help management to track After changing each added and non-added value, the study reached to show the cost advantages on the basis of activities in controlling quality costs through the use of the decision support methodology, and the study emphasized the need to introduce quality costs in the decision support model.
- C- A study (Tomson & Schiffnerova. 2004) entitled "Basic Competencies as a Sustainable Competitive Advantage". This study aimed to renew the core competencies (internal and external) in the air freight industry in Thailand, and to verify the relationship between these core competencies and the continuous competitive advantage of this industry. The study concluded that the resources, capabilities and supply services have a positive impact on the continuous competitive advantage and that strategic alliances are the primary source of external support to achieve the continuous competitive advantage.

Concept of quality costs

The concept of quality has become deeply concerned by the stakeholders for its great role in continuous improvement, and quality is a relatively recent management concept based on a business strategy that focuses on continuous improvement, innovation and innovation, and avoiding the waste of financial and human resources to achieve the satisfaction of beneficiaries. Quality is also an important issue for this because quality A tangible standard that can be judged on the perfection of work, and the detector returns the term quality to several meanings including: -

- A- Indication of performance

- B- The characteristics and characteristics of the product
- C- Product Excellence and Reliability
- W - durability and conformity to specifications
- C- The aesthetic and suitability of the product

And the cost has an important role in the various economic decisions, therefore it requires a good understanding, especially as it is one of the widely used terms, and it has many meanings that differ in its content, and when accountants the cost is related to everything that the organization sacrifices in order to reach the goals and where the overall profit or loss is shown In light of meeting all costs with revenues, this is what made the concept of cost take a clear and important topic for accountants (2) The literature agreed that the first knowledge contributions in the field of the concept of quality costs is due to (Franzen Brekke), which found that most of the definitions of quality cost presented are wide General and feet Proposing a definition of quality costs "as the total losses of a company that arise because of its production and incomplete operation" (12).

From the above, it can be concluded that the quality costs represent the total costs that aim to achieve the quality of the products and their conformity with the specified specifications, and all costs resulting from the failure to comply with these specifications.

Competitiveness

1. Competitive advantage focuses on meeting the needs of the consumer in terms of quality and quality by using advanced production factors as costs in the short term. Competitiveness at the enterprise level can be defined as the ability to provide the consumer with products and services more efficiently and effectively than other competitors, which means the company's continued success in the market, The company's competitiveness can be measured through several indicators, the most important of which are profitability and growth rates, in addition to the company's strategy and direction to meet the demand in the external market (export) and internal supply operations, and hence the company's ability to achieve a greater share of the market (7).
2. In light of the foregoing, the researchers believe that defining the concept of competitive advantage means "the organization's ability to provide individual value to the customer through differentiation or uniqueness of the value chain activities compared to competitors now and in the future".

Sources of competitive advantages

The competitive advantage is considered one of the main components of the organization's strategy, as the success of the strategy depends on the organization's competitive advantages, and there are multiple approaches that the organization can follow in order to obtain a competitive advantage (11)

The competitive advantages are as follows :-

Cost: The cost is the target for enterprises that compete directly on the price. This advantage depends on the facility's ability to provide the service or commodity at competitive costs, and then obtain a greater market share for the facility (3). The issue of reducing production costs is the primary concern of any organization seeking to achieve success and progress in its business in order to achieve high and continuous profits while maintaining its distinctiveness in the market. And that achieving this goal is through providing high-quality products at low cost, and the concept of cost reduction indicates a permanent and real reduction in the cost of the production unit or services without reducing the benefit of the product or service while maintaining

quality. The concept of cost reduction includes a fundamental reduction in the cost of manufacturing Management and marketing by excluding unnecessary elements in costs (5).

Reducing production costs should be a real reduction, meaning that it achieves savings, and excluding any unnecessary activity and the causes of defects and errors because it will be a burden on the organization, as reducing production costs without affecting the quality of the product will be the best way to maintain the competitive position of the organization (3,36) . It is easy to measure the costs of the apparent quality and translate it financially through: (13)

1- Measuring the costs of quality control

Measuring the costs of failure to control quality, and includes the costs of internal failure and external failure, and the costs of failure include two types of costs visible and hidden costs that appear in the group of costs of external failure, while the costs of internal failure can be said through:-

A- Determining the value of sacrifices resulting from storing defective production

B- The sacrifices involved in repairing defective production

C- The sacrifices of selling defective production at a lower price.

He finds four factors that help in achieving the efficiency of the facility to reach the cost advantage, which are: (15,35).

- 1- The savings resulting from the increase in the employees' learning and learning curve
- 2- Reducing the costs of related activities
- 3- Utilizing the element of time upon first entry to the market for the purpose of achieving savings from the costs of establishing and maintaining the relationship
- 4- The high rates of utilizing the available energy to reduce the effect of the ratio of fixed costs to total costs.

Through what is mentioned above, researchers see that cost is a general competitive tool that contributes to increasing sales volumes in the long term by paying attention to the quality and quality of the product and how it matches the needs of the end user.

Quality: Industrial companies work to achieve high quality, in order to remain in the competition market. Therefore, using quality as a competitive tool, industrial companies must view quality as an opportunity to satisfy the consumer, and not only on the way in which they address problems or reduce labor costs .

The quality includes three components: - (20)

- 1- Conformity means the conformity of the product to known standards
- 2- Responding, which means satisfying customer requirements
- 3- Validity means that the product maintains its properties over time in terms of conformity and response.

A number of conditions must be met in the establishment that uses quality as a competitive advantage and are as follows :- (25)

- 1- Determine the quality from the customer's point of view
- 2- Consider quality as a competitive tool

3- Building quality properly

4- Linking quality with profitability on the basis of market and costs.

The effect of high quality products on competitive advantages is multiplied by the following: (16)

The first effect: The provision of high-quality products increases the value of these products to consumers, and this value support in turn allows the facility to impose a high price on its products.

The second effect: for high quality, it is issued by the high efficiency and low costs of the unit, as the production of the product with high quality leads to saving costs resulting from poor quality, which leads to a reduction in the total cost of production.

2- **Time (delivery time)** The time advantage brings the following advantages to the organization: (25)

A- The facility is allowed to enter new markets.

B- Reducing development time and improving process efficiency, which saves time and cost.

C- Increasing the facility's flexibility in responding quickly to the changing needs and requirements of customers.

3- **Flexibility:** is one of the success factors of competitiveness and refers to costs with changes in the competitive environment, and processes for processing demand according to customers 'changing desires in terms of diversity, size and speed of innovation in the production and presentation of new products (22,34).

4- **Service:** Perhaps the greatest opportunity for competitive advantage when the average level of product quality increases among competitors, which causes customers to shift towards service as a primary means of preference among enterprises (11).

5- **The environment:** The environment is one of the important and modern competitive advantages in light of the great concern for the environment, and concern for the environment is one of the establishment's responsibilities in light of the laws related to the environment, which obliges the establishment with some of the obligations that it must fulfill (8,33).

6- **Second:** the general strategies for competition

The strategy represents the integration of a competitive move with the entrances of the business in order to meet customer needs and reach organizational goals (21)

Industrial companies are based on applying a specific competition strategy, the main goal of which is to acquire a competitive advantage or advantages, and design competitive strategies in general to achieve competitive advantage and are related to the competitive position to reach the improvement and increase of the customer, which is a key factor in the success of the strategy, so it is a way to deal with competitors effectively More to strengthen its position in the market (9,32)

Porter provided an introduction explaining the competitive strategies at the business unit level, and the most comprehensive introduction on three strategies: (11,31)

1- **Cost Leadership Strategy** (The strategy aims to achieve a lower cost compared to competitors, and achieving this strategy has several advantages, including those

relating to competitors, as industrial companies producing at a lower cost are in a better position in terms of competition on the basis of price and with regard to the entry of potential competitors to the market, so the organization Producing at a lower cost occupies an excellent position of competition that enables it to reduce the price and face any attack from the new competitors.

2- Discrimination strategy

3- Focus Strategy (14)

In our opinion, there can be strategies that it is important for the economic units working in the labor market to take care of them, which are competitive strategies to stay in the labor market through planning, future growth and keeping abreast of developments in the market.

The contribution of quality costs in achieving competitive advantage :

The economic units, regardless of the nature of their work, whether they are production or service requirements, are the outcome of their activities and operations within the high quality of the product with low production costs (7, 26). Undoubtedly, the management of economic units seeks through deliberate steps and quality planning to reach the high quality of their products and at the lowest level of production costs, and we cannot find the achievement of these two conflicting goals under the departments of underdeveloped economic units that rely on wide-ranging inspection methods to achieve quality (4,27) so that quality and cost are enhanced Quality is the sure path to a successful future as ensuring and improving product quality is in fact done through the company's commitment to society in enhancing brand quality to improve customer lives (25,30)

Simply, we can confirm that the quality costs measure the costs and are specifically associated with the completion of a service or product, including all the requirements for these products and these services (20,28), and as the subject of the competition is considered a multi-dimensional concept with a weighting of the dynamics of various factors, there are a number of topics in the competitiveness of companies Industrial needs attention, both by researchers and practitioners, to understand the management of problems and complexities (19,29)

The researchers believe that the quality costs are directly related to the competitiveness of all economic units. It is important for these industrial companies to measure the impact of these costs on the competitive advantage of the production elements on product quality and the extent to which these costs contribute to the profitability of competition in the markets.

STUDY THE EFFECT OF QUALITY COSTS ON INCREASING THE COMPETITIVENESS OF IRAQI INDUSTRIAL COMPANIES

Iraqi industrial companies:

Industrial companies are the economic lifeblood in most countries, knowing that industrial companies in Iraq are among the first economic units in the Arab world and the region. This research focused on knowing the impact of quality costs on the competitive elements of these economic units (total production and sales volume), and for that the researchers conducted Multiple visits for the period from 7/7/2016 to 6/30/2017 and reviewed the quarterly reports of the economic units and the trading volume in the Iraq Stock Exchange. The cost reports prepared during this period were reviewed and the role of these costs is recognized In the competitiveness of these industrial companies in the business market (current and targeted market share), then a

set of questions were directed to the board of directors of these industrial companies, their employees and some consumers.

SECOND: COLLECTING AND ANALYZING DATA AND THE QUESTIONNAIRE

Data on the quality costs of economic units were obtained from the cost accounting records for the fourth quarter of 2016 and the second quarter of 2017 and in the light of these records the two tables were made below and the comparison was made between them, and then the questionnaire was analyzed as follows:

Quality costs in company records:

There are records regarding the quality costs as shown in tables (1 and 2) below. The researchers made a table to compare these costs with the total production and profits achieved, which are largely reflected in the size of the market share (competitive advantage).

Table (1)

Quality costs for Iraqi industrial companies listed on the Iraq Stock Exchange for the fourth quarter of 2016

Amount in thousands												
The Company's name	Internal failure costs	External failure costs	Prevention costs	Evaluation costs	Optimization costs	Costs of market studies	Costs to improve future product design	Recycling costs	Total costs	Total costs	Total sales	Net profit
Al Mansour Pharmaceutical Industries	632	410	752	335	541	641	549	193	112760	4053	333770	53403
Modern sewing	549	299	153	75	218	290	139	171	8321	1894	255039	40806
Carpets and upholstery	580	198	89	143	387	105	214	260	93	1976	17001	2550
Baghdad for the manufacture of packing materials	733	489	258	174	294	241	196	206	54982	2591	21993	2859
Baghdad for soft drinks	810	317	412	289	560	278	190	183	179541	3039	62839	6912
Crescent Industrial	462	361	288	209	351	278	328	195	2965	2472	32319	29087
Chemical and plastic	758	465	598	267	603	422	394	203	493	3710	25488	4843
Canadian Veterinary Vaccines	351	189	275	179	315	427	381	38	507	2155	1724	310
Iraqi engineering works	318	98	105	98	207	193	206	49	819	1274	5323500	1490580
Metal and bicycles	698	389	284	279	189	98	103	275	153	2315	10710	1499
Production of ready-	653	310	189	106	236	169	204	193	3642	2060	131112	22289

made clothes												
Total industry sector	6544	3525	3403	2154	3901	3142	2904	1966	364276	27539	6215495	1655138

Prepared by researchers based on company records

Table (2) Quality costs for the Iraqi industrial companies listed on the Iraq Stock Exchange for the second quarter of 2017

Amount in thousands												
Company name	Internal failure costs	External failure costs	Prevention costs	Evaluation costs	Optimization costs	Costs of market studies	Costs to improve future product design	Recycling costs	Total production	Total costs	Total sales	Net profit
Al Mansour Pharmaceutical Industries	658	369	793	387	573	698	600	189	119840	4267	358322	64498
Modern sewing	590	243	256	68	254	290	159	149	8730	10739	272376	51751
Carpets and upholstery	602	146	168	132	409	165	259	202	102	2185	18850	3581
Baghdad for the manufacture of packing materials	749	399	306	154	311	255	217	174	57321	59886	34393	5159
Baghdad for soft drinks	847	278	487	240	600	258	211	147	187534	190602	75014	9752
Crescent Industrial	500	298	311	179	406	301	387	139	3210	5731	37878	37499
Chemical and plastic	789	364	562	231	631	477	418	186	542	4200	28347	5953
Canadian Veterinary Vaccines	401	142	340	137	359	481	401	27	543	2831	2226	445
Iraqi engineering works	350	78	165	86	271	212	189	31	894	2276	5989800	1796940
Metal and bicycles	709	487	300	209	200	100	136	207	175	2523	13125	2231
Production of ready-made clothes	642	289	241	79	299	179	378	138	3986	6231	151468	28779
Total industry sector	6837	3093	3929	1902	4313	3416	3355	1589	382877	291471	6981799	2006588

Prepared by researchers based on company records

1. By noting the figures in the above and comparing the two tables, we notice a decrease in costs (internal and external failure and remanufacturing) as well as an increase in costs (prevention, evaluation, improvement, market studies and improvement of future product design) and this indicates the company's interest in the competitive advantage of survival. In the labor market, the high costs of prevention and improvement lead to a decrease in the

costs of internal and external failure. As for the high costs of improving the future product design, it leads to a decrease in the costs of recycling. Now good sewing leads to reducing product damage, which leads to Dah Manufacturing that the relationship between the costs above was an inverse relationship.

2. Knowing the extent to which workers and consumers are aware of the impact of quality costs on competitive advantage

For this purpose, the researchers organized a questionnaire, and descriptive statistics were used to extract the mean and standard deviation of the study questions. The results are summarized in the following table:

Table (3)

Shows the mean and standard deviation of the questions for the study sample

(Std. Deviation)	(Mean)	the question
1.021	4.052	1
1.035	4.069	2
1.029	4.093	3
1.083	4.251	4
1.075	4.046	5
0.885	3.870	6
1.018	4.207	7
0.946	3.371	8
0.992	3.906	9
0.984	3.780	10
1.037	4.175	11

Prepared by researchers

From the above table, we note that the answers of the research sample are generally positive around all research questions because most of their arithmetic averages are greater than the average of the measuring instrument and the amount (3), so its highest percentage (4.251) gives the industrial company importance to the costs of planning and improving quality, while the lowest percentage came (3.371) The company is working on identifying and analyzing the reasons leading to the production of poor quality products, while the respondents' answers to the questions about the extent of use and the contribution provided by measuring the quality costs in industrial companies have varied on the competitive elements in Iraq, and it was found by answering the questionnaire paragraphs that the respondents Y Ron said that measuring quality costs helps increase the ability to export, focus heavily on customers, both at home and abroad, fit the demand for demand and raise the pace of marketing, improve the quantity and quality of production, define ways to reduce restart, and increase the consumer with products and services more efficiently and effectively than competitors Others, and that reducing costs and improving quality is important for continued competition and greater satisfaction with the needs and desires of the constantly distinguished clients, as more than 83% of respondents have answered either with high approval or approval, or in other words, they see that measuring the quality costs in foreign companies A defendant in Iraq leads to an increase and improvement of its competitiveness, and an improvement of its constituent elements. We also note that the arithmetic circles of the questionnaire paragraphs are more than (3.371), and it is concluded that industrial companies in Iraq use the known quality costs in order to increase competitiveness, and thus increase

Competitiveness. Quality cost reports are also used to increase their competitiveness, as (93,2%) of the respondents answered with approval, and the mean of the answers (4,016) on the relevant paragraphs.

Through the data obtained from the company's records in tables (1 and 2) and the research sample's answer to the questionnaire questions, we note the stability of the two research hypotheses, namely that the interest of Iraqi industrial economic units in the quality costs and providing quality cost reports to the beneficiaries leads to an increase in the market share for them, as most sample answers. The study was positive about using quality cost reports to increase the competitiveness of the economic unit, as well as the interest of Iraqi industrial economic units in quality costs leads to improved production and an increase in their competitiveness in the business market, increasing production and size Profits indicate an increase in the market share of economic units operating in the business market.

RESULTS: RECOMMENDATIONS

First: the results

1. The success of industrial companies in Iraq in improving their competitiveness and superiority over their competitors through quality costs, which requires them to improve the quality and performance of available resources, while knowing how to direct their expenditures.
2. Relying on some methods that are the most important possibilities that industrial companies can provide, which allow them to reach to reduce their production costs.
3. Reducing production costs is of great importance to improve the competitiveness of industrial companies in Iraq.
4. Most industrial companies prepare periodic reports of quality costs, but the failure to use the media to introduce the products of these industrial companies is the main reason for the decrease in sales volumes, despite the fact that most of their products enjoy international quality specifications.

SECOND: RECOMMENDATIONS

1. Industrial companies in Iraq should assign new tasks to the accounting department with the aim of further monitoring the evolution of costs, and then define them with precision and achieve better profitability.
2. Using the media by Iraqi industrial companies to introduce their products and the quality of these products and reduce the profit margin on the products in order to raise the market share more broadly.
3. Industrial companies in Iraq must develop production technology due to its great importance in supporting competitiveness and increasing the competitive advantage of industrial companies under study, both now and in the future.
4. Intensifying communications with a view to obtaining raw materials at a lower price, and getting rid of monopoly at the present time.

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