

Trinity of Competitive Discrimination (Cost, Quality, and Time) in Light of the Cost, Based on Attributes in the Building and Construction Sector

Siham Abd Ali Obaid Al- Quraishi^a, Thair Sabri Mahmoud Al-Ghabban^b, ^{a,b}Financial studies, post- Graduate institute for accounting & financial studies, University Bagdad,

The research problem was to identify the possibility of benefiting from the use of cost technology based on attributes to achieve a competitive advantage. Because the business environment is witnessing major transformations in all fields, it has led to inviting the units to have a comprehensive view about the various requirements and desires of the customers that lead to increased competition. To solve this problem, the research was based on the following hypothesis: The use of cost technology based on attributes, will fulfill the diverse requirements and desires of customers, which leads to achieving a competitive advantage for the units. The research reached a set of conclusions and recommendations, perhaps the most important of which is that of applying cost technology based on attributes, will contribute to achieving a competitive advantage represented by its dimensions (cost, quality and time), Depending on the research results, the researcher recommends an invitation to apply the cost technology based on attributes. Because it brings many benefits, including lower cost of the product and improved response to changes in customer needs and desires. By producing high-quality products at reasonable prices and in record time, and the use of modern building techniques instead of the traditional construction used by the units, this will reduce the cost of raw materials and labour.

Key words: *Cost, Quality, Time.*

Introduction

In light of the business environment and the rapid and successive changes and developments that accompanied it, the interest and search for new technologies that follow distinguished standards in the performance of its business, have increased so that it can survive and continue in the competitive market. From here the importance of the study of technology (ABCII) is shown, to achieve the competitive advantage of products by providing information that meets the requirements and desires of customers and supports the competitive advantage of the product in terms of cost reduction without compromising the characteristics of the product (quality). This is as well as delivering the product on time, which enables it to ensure its longevity and enhance its position in the labour market, especially in light of the changing environment.

The First Topic

Research Methodology and Previous Studies

Research Problem

The research problem was that the contracting companies did not realise the importance of what the cost technology provides based on attributes (ABCII), from information on the requirements and desires of customers that help it achieve a competitive advantage in the changing environment.

Research Importance

1. Contributes to the use of cost technology based on attributes (ABCII) in achieving a competitive advantage for economic units
2. Improves product attributes and improving unit value and competitive advantage by adopting cost technology based on attributes.
3. Clarifies the role of cost based on attributes in achieving customer requirements.

Research Objective

1. It provides more detailed cost information on product attributes which contributes to achieving a competitive advantage in the market.
2. It analyses the cost position of the economic unit and comparing it with the cost position of competitors through analysing product attributes to reach a competitive advantage.
3. It provides a product with high quality and attributes at the lowest cost to reach leadership in the labour market.

4. It increases the competitive advantage of the economic units to ensure their continuity by reducing costs and improving performance.

Research Hypothesis: The use of cost technology based on attributes required by customers' requirements and desires.

Search Limits

First - Spatial Limits

The scope of the research includes the spatial limits represented by Al-Mansour General Company for Construction Contracting (government sector) to enable the application of cost technology based on attributes by it, as well as being compatible with the company's products from residential complexes, according to customer requirements. It also includes the changes that have occurred in the business environment and its reflection on the competitive position of all units working, The fourth dimension group Contracting Company (a private sector) was also chosen as one of the best competing companies operating in the same contracting sector.

Second - Temporal Limits:

The years from 2011 to 2018 were chosen for Al-Mansour General Contracting Company which was chosen as an area of application and to provide data for the years for itself for the Fourth Dimension Company for Construction Contracting, because the duration of the implementation of residential complexes is long-term.

Research Method

The research relied on the inductive method based on the writings related to the research and the descriptive approach based on the data of Al-Mansour State Company for Construction Contracting (government sector) and the Fourth Dimension Company for Contracting (private sector).

Literature Studies

Study: (Sorour. Manal Jabbar, Ali. Mead Hamid Salman. Muhannad Abdel Rahman, 2018) **Study Title:** The role of cost technology based on attributes in achieving a competitive advantage to face the effects of globalisation. **Objective of the study:** Using a modern cost-management technology to create and support the company's competitive advantage to help it face globalisation. **The study reached** the adoption of cost technology based on attributes

with value engineering contributing to achieving the required quality, given that the quality is the conformity of the product to the desired attributes from the consumer in the light of the price that satisfies him.

Study: (Robert M Inglis, 2008) Study Title: Exploring accounting and market orientation: an inter Function case study. **Objective of the study :** Presentation of a costing approach based on attributes in how marketing and accounting overlap theoretically and practically, which helps provide unit information and competitors to meet the needs and desires of customers. **The study reached:** accounting techniques are a means of measuring the costs of the product attributes specified by the customer, which create profits for the seller within the framework of the market orientation and connects with three elements: the customer, competitors and job coordination.

Study: (Elamir, 2017) Study Title: Integration's Effect of Target Costing Value and Engineering on Manufacturing Firms' Performance: Moderating Role of Competitive Strategy. **Objective of the study:** is to shed light on the effect of integration and correlation between the target cost and value engineering in the performance of the industry; **the study reached** the complementarity between the target costs and value engineering, has a partial effect on practical performance and no impact on financial performance.

Study: (Ghafeer, et al,2014) Study Title: The impacts of target cost method to strengthen the competitiveness of industrial companies. **Objective of the study:** the impact of the application of target cost technology in strengthening competitiveness; **the study reached:** there is a positive, direct and good relationship between the target cost method and the enhancement of the cost advantage and the quality advantage.

The Second Topic

Theoretical

Cost Technology Based on Attributes to Achieve Competitive Advantage

Introduction to Cost Technology Based on Attributes

The advantages of the modern environment contributed to the transformation of the units towards the market, i.e. production of what can be marketed rather than marketing what can be produced, to support the competitive advantage; this is done through continuous cooperation between its departments to provide better value for the customer compared to competitors. However, soon this shift was made from this marketing concept to the concept of product value as a source of profitability that depends on the customer's vision and

evaluation of product attributes, because the increase in the product offer led to expanding the base of alternatives available to the customer, This trend has led to the failure of traditional methods of cost management to keep pace with modern marketing thought, where the customer became the one who controls the nature of the product and its characteristics; also the most important features satisfy its desires and thus the perception of the value of the product that arises within the units has become inadequate. This is. because the value of the product is determined according to the customer's perception and evaluation of its attributes in terms of utility, design and meeting needs, In order for units to reach this value, they must take advantage of all their strengths that distinguish them from their competitors to develop new products that meet the expectations and needs of customers and at a specific level of cost so as not to affect prices and profitability. In light of this emphasis on the needs and desires of customers and the inability of traditional cost systems to provide this type of information provided by ABCII technology, which is a technology for measuring product costs taking into account product attributes. (Latifa, 2017: 17), the researchers defined the cost technology based on attributes with many definitions. They differed in terms of concept, but they were similar in principle, and as shown in Table 1, they will be displayed according to the historical sequence to know the developments obtained as follow:

Table 1: Cost technology definitions based on attributes

Researcher	Definitions
Aldfaey,2019:46	The set of customer requirements that he desires to meet in the product or service, which is the real motivation for obtaining a specific product or service without any other than what competitors offer to satisfy his needs and desires, and those characteristics are represented by specific characteristics or features.
Aljadry,2016:38	A group of tangible and intangible properties or features of the product that constitute the primary motivation that drives the customer to choose a specific product and not others, and which constitute the customer's value for what he pays to satisfy his desires.
Jasim, 2015:452	An introduction to determining the costs of a product or service by relying on a division into a set of attributes that includes multiple levels of achievement and then measuring the costs of achieving those attributes and related benefits, to provide detailed information for planning, control, and decision-making purposes
Shah,2011:3	An introduction to measuring product costs by analysing it to its basic attributes and linking all the resources used to those attributes that are the cost target

Source: Based on the sources mentioned in the table (Aldfaey, Aljadry, Jasim, Shah,)

Determine the Basic Aspects of the Product Attributes

Some aspects should be met in the process of preparing product attributes to enhance the value of the product, and they are as follows: -

- Determining the attributes of the final product, including important dimensions such as area (size), durability (quality), design (modernity), safety (reliability), service performance.
- Determining the attributes of the raw materials used in construction operations, which are represented by civil works, electrical works, piping and sanitary works, electrical works, and mechanical works.
- Determine the method to be followed in production processes according to the specificity of each attribute, such as preparing certain materials at temperature before the manufacturing process.
- Determine the comparative measurement method to be followed to choose the product or raw materials necessary for its manufacture, as well as the type of devices and machines to be used, and define the criteria for the measurement operations.
- Determine the attributes of the packing and transportation operations of the various products in a manner compatible with their nature and size to ensure and enhance the distinction with those products during consumption, use or when preserving them. (Mazriq & Gharbi, 2005: 259)

Costs Matrix by Cost Technology Based on Attributes

Bromwich (1990) emphasised the role of accountants in estimating various costs of product attributes and monitoring these costs over time, adding that accountants should pay attention to strategic information as well as cost information; this helps in planning, controlling and making decisions about costs of product attributes. These costs are monitored and reported regularly. Nasieku & Githinji (2016:167) and Partridge & Perren (1994) set a model that shows how to report the costs of the product according to the cost technology based on attributes through analysing the costs associated with the relevant attribute into four categories of costs, which are as follows: -

- The costs related to the volume of production: this category includes the costs directly related to the volume of production, which are related to the change in the production quantity and includes the raw materials of the product.
- The costs related to the activities: This category includes costs that are not directly related to the volume of production, which change according to the time taken to complete each work and includes labour costs and indirect industrial costs (other than extinction).

- The costs related to Energy: These are the costs of using the work machines and are the costs of the extinction of those machines.
- The costs related to the decisions: this category includes the costs related to the decisions of the economic unit policy regarding the presence or absence of an attribute and the level of attributes in the product, and thus it includes administrative costs. (87: 2005, Inglis). The following table (2) shows a matrix of product attribute costs according to the model submitted by Partridge & Perren, (1994):

Table 2: Product Attribute Costs Matrix

Cost Categories Attribute	The costs related to the volume of production	The costs related to the activities	The costs related with energy	The costs related to decisions:
A				
B				
C				
D				

Source: (Inglis, 2005: 84)

Requirements for Applying Cost Technology Based on Attributes

Attribute-based cost technology is considered to be a different package or set of attributes. Each feature represents an independent product that can be implemented with multiple levels of achievement. Consequently, the customer's benefit will vary according to the level of achievement that each attribute reaches. The level of achievement will be determined according to one's needs. (30: 1990, Bromwich). Based on this, the cost application requirements can be determined based on the following features:

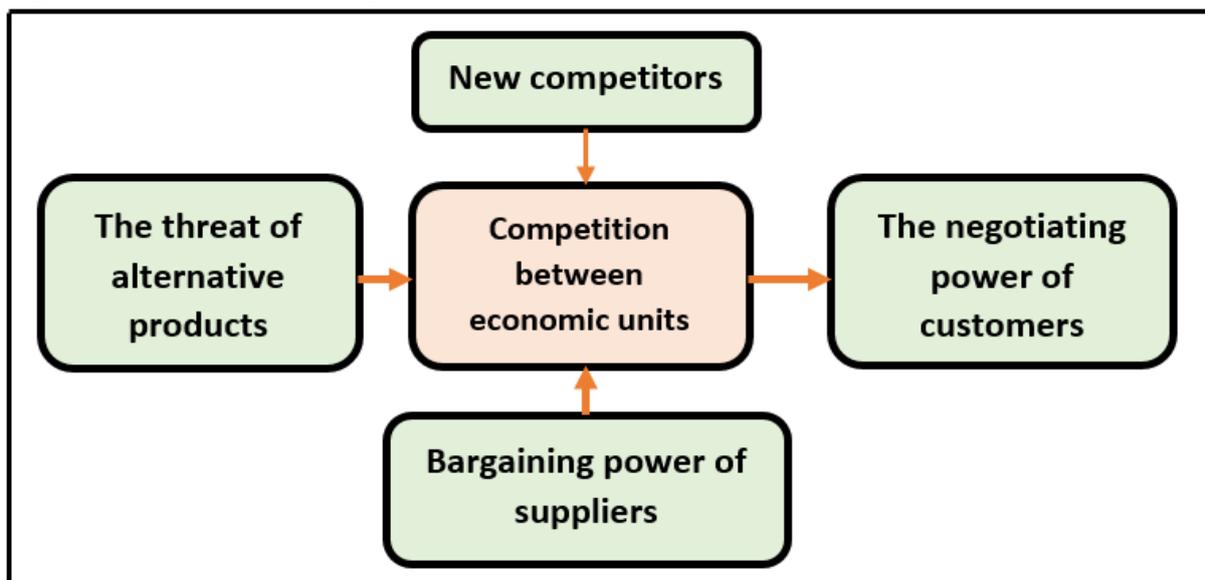
- 1- Defining the needs and desires of the customers.
- 2- Defining a set of basic attributes of the product.
- 3- Determine the relative importance of each attribute.
- 4- Determine activities and their costs based on attributes in the form of a matrix for each attribute, to achieve with it the best return for economic unity, while fulfilling the needs and desires of customers.
- 5- Determine the cost of the product. (Al-Mahmoud, 2007: 177)

Competitive Advantage

The Concept of Competition

The rapid changes that have accompanied the overall business environment have generated intense competition between units that absorb new technologies; the unit focuses on the customer to achieve his/her satisfaction by following the best methods for creativity and superiority over competitors. (Hana,2013:82), Thus, competition represents all the efforts made and innovations exercised by the unit to increase its market share and win more customers. This means that competition requires concentrating efforts to improve the unit's relationship with customers by providing distinct products and services that can meet their needs, desires, and requirements. This is done with the help of modern strategic technologies. (Chi & Sun, 2015: 404). Porter has presented a model for the Competitive Forces Pattern. Figure (1) shows the competitive forces model.

Figure 1. Porter's Five Competition Forces Model



Source: (Daft, Richard L. 2010, *"Management"*, 9th ed., South-Western Cengage Learning, Nature Boulevard. Mason, USA, p:178)

This relationship is represented by the effect of new competitors entering the market on the strength of bargaining of customers and suppliers, and hence the intensity of competition between economic units. The presence of alternative products on the market will affect the negotiating power of customers and suppliers and increase competition intensity as well. For something that affects the performance and profitability of the unit, this unit must study the forces of competition in-depth and use them as analytical tools to test the competitive environment in which they operate.

The importance of knowing the competitive advantage comes from the crucial role it plays in the life of the units, as it is the critical strategic element that provides a fundamental opportunity for it, The researchers knew the competitive advantage with many definitions that differed in terms of concept, but they were similar in principle and as shown in Table (3), It will be displayed in chronological order to see developments.

Table 3: Definitions for competitive advantage

Researcher	Definitions
Manuela, 2019: 8	Creating distinctive talents that place economic unity in isolation from competitors, which gives it preference in the market.
Al Mohammadi, 2019: 41	It expresses all the properties, resources, or capabilities that the unit possesses from the rest of the economic units in the market and helps to satisfy the desires of customers and its reflection on increasing profit and market share.
Al Zamili, 2017: 9	The ability of the economic unit to creativity and excellence by following the skills and capabilities that enable it to produce products that meet the needs and desires of customers, at the lowest cost and the highest quality and the shortest design and marketing time, while providing sufficient flexibility in responding to any changes in needs and desires, so that competitors cannot achieve what the unit achieved easily or in a short time.
)Al Awawda, 2012: 12	The economic unit uses internal strengths for its administrative and functional performance so that it can achieve an advantage that competitors cannot imitate.

Source: Based on the sources mentioned in the table (Manuela, Mohammadi, Zamili, Al-Awawdeh)

Dimensions of Competitive Advantage

Economic units seek to achieve the dimensions of competitive advantage, which reflects the overall performance of operations and units must be approved to achieve customer satisfaction and loyalty, as the success of these units depends on the amount of their success and excellence in the continuous improvement of these dimensions.

The Lowest Cost

It is the sacrifice of resources to achieve specific goals and the cost (such as the cost of work or advertising) is usually measured as the amount of cash paid to buy goods or services (Horngren, 2018: 29). The cost represents one of the dimensions of the competitive advantage,

and it is intended from the point of view of the unit (production and distribution of a product with fewer costs or lost resources, in a way that allows achieving a spatial advantage resulting from the lower unit product costs compared to the products of other units). (Naqshbandi, 2012: 5). As both agreed (Berglund & Stohm, 2015: 24) and (Russell & Millar, 2014: 73), cost means the production and delivery of alternative products at the lowest possible cost, including the cost of labour, materials, and overhead. To reduce the cost per unit of a product or service, the cost is an important goal for the units that compete based on price. It is an important factor in the stability of the unit's work and maintaining its position in the market. The lower costs are achieved by improving product quality, having creativity in design, reducing distribution costs, and reducing waste and idle time in the use of machinery and equipment.

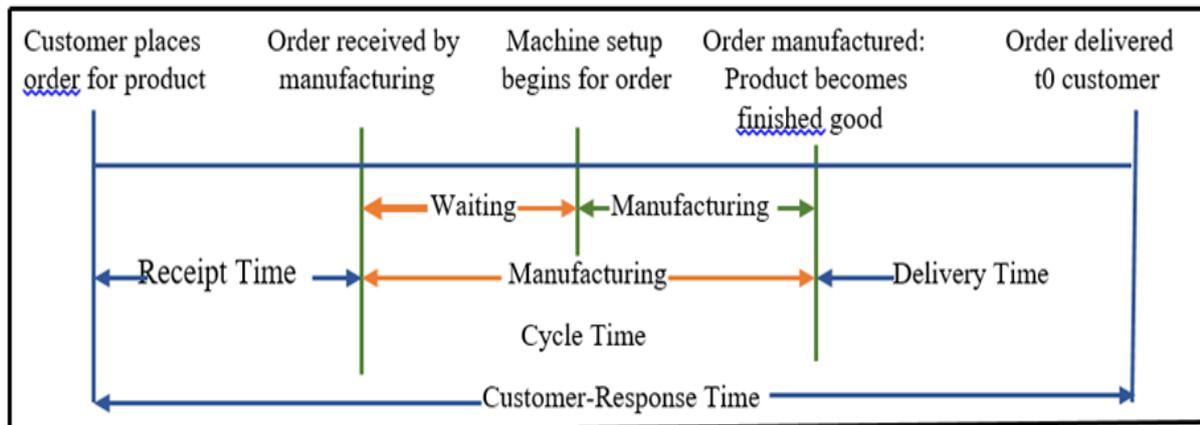
The High Quality

The American Society defines quality as the sum of the characteristics of the product or service provided, which is implemented according to attributes to satisfy customers at the time of purchase and during use (Hornngren, 2018: 74). Quality is the second dimension of competitive advantage, and its importance is growing as a competitive strategy that the units resort to, to adapt to the changes of the modern business environment, Quality is the attributes, good product performance and functionality provided by the economic units. (Krajewski & Ritzman, 2005: 194), Thus, quality is a competitive advantage that indicates that something is done right from the first time to produce products that can meet the needs of customers, match their use, and meet their expectation., It is thus an important tool for achieving customer satisfaction and loyalty to the unit. (Atem, 2007: 14)

Speed of Delivery

Time is seen as a competitive advantage that enables the unit to take advantage of the investment opportunities available to it, as well as the speed in delivering the idea to the market and shortening the life cycle of the product. (Hemmatfar 2010 : 162) The customer's response time is referred to as the time that adds value to the customer. This includes the following time: the time of receipt and processing of the order from the customer, the main manufacturing time (which includes waiting time for order and manufacturing time), and finally, the time the product is delivered to the customer. (Hornngren, 2012: 681), We will clarify the response time for the customer through Figure (2).

Figure 2. Components of Customer-Response



Source: (Horngren C., Datar S., Rajan M., "Cost Accounting a Managerial Emphasis", 15th Edition, Pearson Education Inc., New Jersey, USA, 2015. 745).

It is noted through Figure (2) that the response time for the customer extends from the time of receiving and processing the request until the product is delivered to the customer, through to the major manufacturing time that includes both delivery time and order scheduling and manufacturing time. The greater the customer satisfaction with the company, the less the total response time for them, as this satisfaction is accompanied by an increase in the sales and profits of the company and thus an increase in the market share of this company.

The Practical Side

Introduction to the Two Companies

The cost technology will be applied based on attributes in the building and construction sector of Al Mansour General Contracting (a state-owned company), The housing complex project was chosen Island 2, Karbala, which implemented by the company the research sample; its product (apartment) has an area of (150m²) The Fourth Dimension Group Contracting Company that is implementing The housing project chosen was Al Hamza eastern / Diwaniyah, for an apartment area (150 m²). The technology will be applied to find out the reasons for the difference between companies working in the same activity and show the differences in the implementation of contracting contracts to achieve a competitive advantage. The technology will be applied to the two companies to determine the reasons for the difference between them because they work in the same activity and show the differences in the implementation of contracting contracts to achieve a competitive advantage.

The cost of the product (the apartment) for Al-Mansour State Company for the Construction Contracting Research Sample Company and the Fourth Dimension Group for Contracting (The Competing Company).

Comparison of the Actual Cost

Table (4) shows a comparison of the actual cost of the (apartment) product of the research sample company and the competing company

Table 4: Comparing the actual costs of the (apartment) product for Al-Mansour General Contracting and the Dimension Group Contracting Company (the competing company)

(1) The actual cost of Al- Mansour General Contracting Company (Dinar)	(2) The actual cost of a group company The fourth dimension of Contracting (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
93,898,040	79,557,607	14,340,433	15

Source: Based on the data of the two companies

We notice from Table (4) that the actual cost of the product of the research sample company was 93898040 dinars; as for the competing company, the actual cost of its product (the apartment) was 79557607 dinars, with a difference of 14340433 dinars, or 15% of the total cost. We will address the application of cost technology based on the attributes of the company's product, the research sample, and the competing company, to reach the reasons for the differences in the cost of the company's product, the research sample, and to achieve a competitive advantage.

Comparison of Costs Related To the Volume of Production

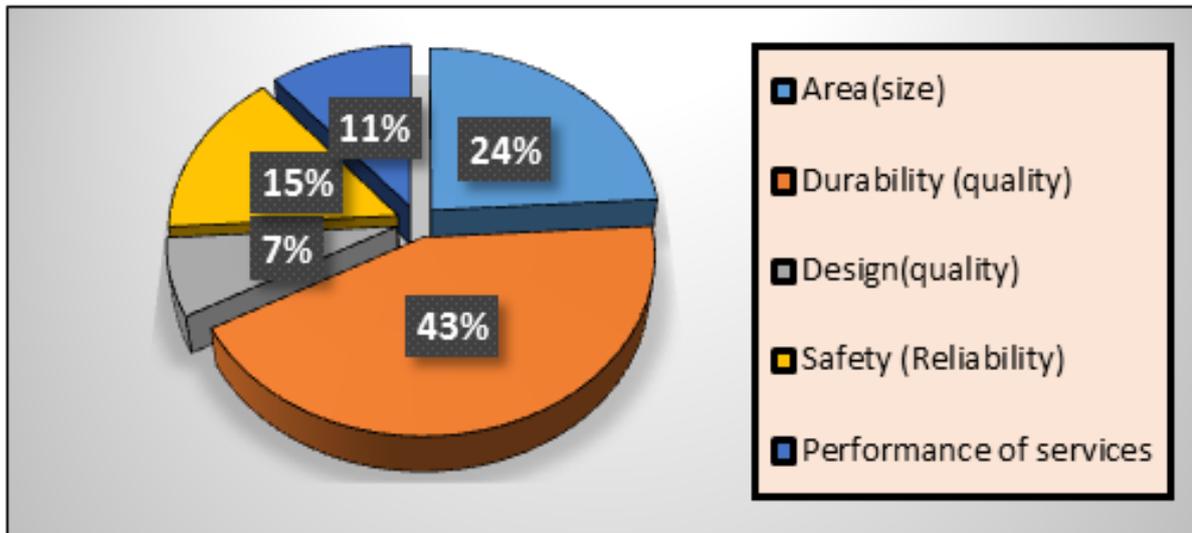
Table 5: Shows a comparison of costs related to the volume of production of Al-Mansour General Construction Company (the research sample company) and the fourth-dimension group Contracting Company (the competing company)

Attributes	(1) The costs associated with the production volume for Al-Mansour General Contracting Company (Dinar)	(2) The costs associated with the production volume of the fourth-dimension group company (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
Area (size)	12,166,531	9,685,594	2,480,937	24
Durability (quality)	22,841,735	18,488,966	4,352,769	43
Design (modernity)	2,723,135	5,052,424	670,711	7
Safety (Reliability)	4397287	2837932	1,559,355	15
Performance of services	3890148	2772402	1,117,746	11
Total	49018836	38837318	10,181,518	100

Source: Based on the data of the two companies

In Table (5), the costs related to the volume of production are calculated for each of the product attributes, and the difference in the total costs of the attributes was less 10181518 dinars. For example, the costs of the area attribute (size) for the research sample company were 12166531 dinars, and for the competing company they were 9685594, that is, the space attribute for the competing company was lower by 2480937, that is, (43%) of the total percentages of attributes costs. These results can be represented in a relative circle, as in Figure 3 as follows: -

Figure 3. Costs of attributes related to production volume



Source: Preparing the researcher based on the schedule (5)

It is noted from Figure (3) that the ratio of costs related to the volume of production varies for each of the product attribute, where the percentages of attributes costs were for the research sample company were higher than the competing company attributes cost ratios, where the costs of the durability attribute (quality) accounted for 43% of the total attributes for the cost of the attribute, then came the costs of size attribute (area) at 24%. Safety attribute costs (reliability) were 15%, and the costs of the attribute of the performance of services were 11%. Finally, the costs of the (modern) design attribute were 7%. This means high costs of raw material attributes were used by the research sample company.

Comparison of Costs Related to the Activity

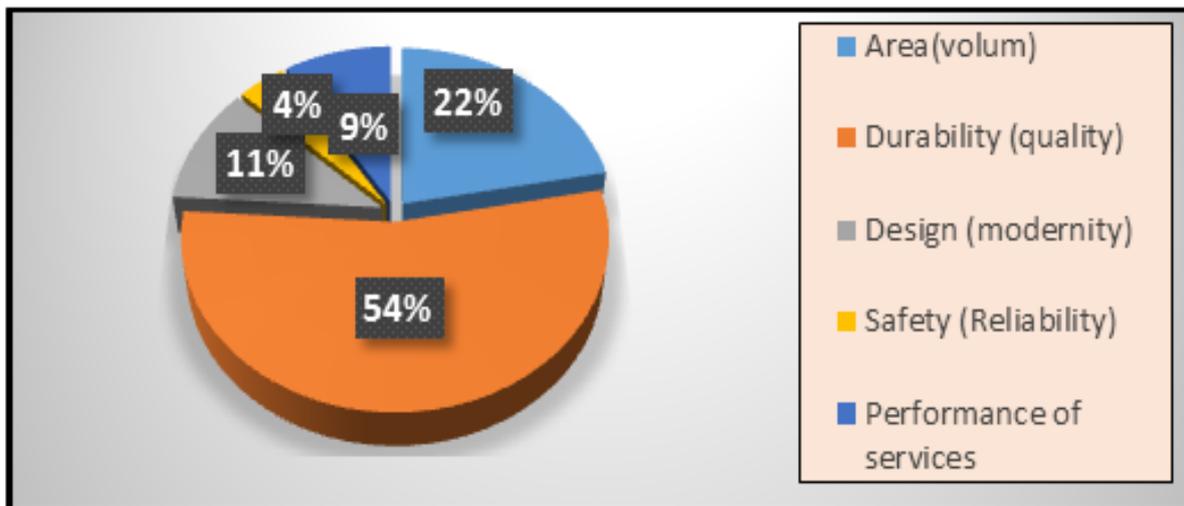
Table 6: Shows Comparison of costs related to the activity of Al-Mansour State Company for Construction Contracting (research sample) and the fourth-dimension group company (the competing company)

Attributes	(1) The costs related to the activity of Al-Mansour General Contracting Company (Dinar)	(2) The costs related to the activity of the fourth-dimension group company (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
Area (size)	9,639,272	8,609,621	1,029,651	22
Durability (quality)	15,884,358	13,399,092	2,485,266	54
Design (modernity)	7,133,040	6,659,280	473,760	11
Safety (Reliability)	3,044,846	2,857,594	187,252	4
Performance of services	3,678,147	3,252,036	426,111	9
Total	39,379,663	34,777,623	4,602,040	100

Source: Based on the data of the two companies

In Table (6), the costs associated with the activity are calculated; the difference in the total costs was 4602040 dinars, for example, the cost of durability (quality) was 15884358 dinars for the research sample company. The amount of 13399092 dinars was for the competing company, with a difference of 2485266 dinars, with a percentage of 40%. The total percentage of attribute costs, and the representation of these results in a relative circle, are shown in Figure (4) as follows:

Figure 4. Activity costs related to costs



Source: Preparing the researcher based on the schedule (6)

It is noted from Figure (4) the variation of the percentage of costs associated with the activity for each attribute of the product. If the company's attributes are higher than those of the competing company, the percentage of quality attribute costs (durability) represents 54% of total attribute costs. Then comes the cost of attribute space (volume) at 22%, the cost of attribute design attribute (modernity) is 11%, and the cost attribute performance of services at 9%. Finally, the cost attribute safety (reliability) is a percentage of 4%, and for the product (apartment) of the research sample company And the low of The competing company.

Comparison of the Cost Related to Energy

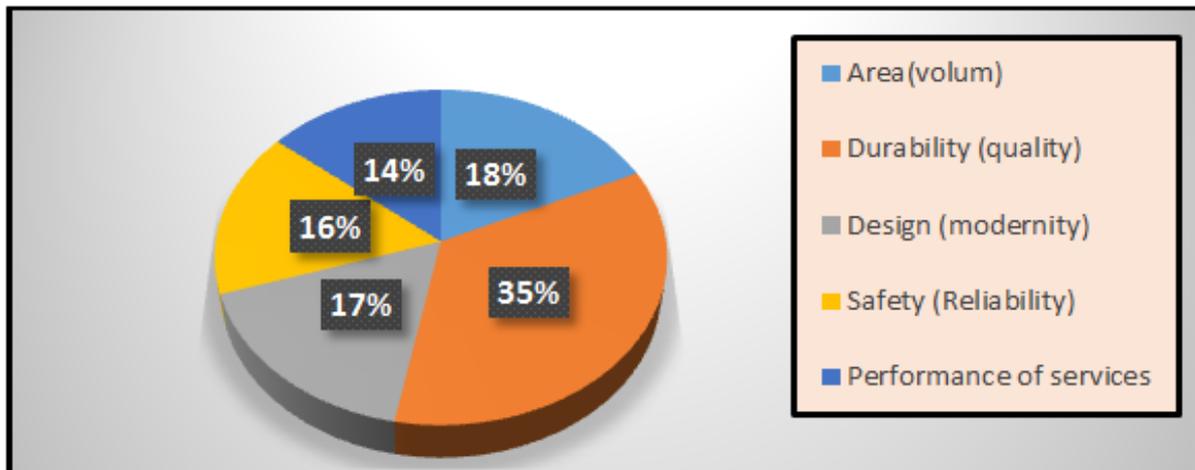
Table 7: Shows Comparison energy-related costs of Al-Mansour State Company for Construction Contracting (research sample) and the fourth-dimension group company (the competing company)

Attributes	(1) The costs related to the energy of Al-Mansour General Contracting Company (Dinar)	(2) The costs related to the energy of the fourth-dimension group company (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
Area (size)	19,017	14,072	4,945	18
Durability (quality)	36,978	27,363	9,615	35
Design (modernity)	17,960	13,291	4,669	17
Safety (reliability)	16,904	12,509	4,395	16
Performance of services	14,791	10,945	3,846	14
Total	105,650	78,180	27,470	100

Source: Based on the data of the two companies

In Table (7), the costs associated with the energy are calculated; the difference in the total costs was 27470 dinars, for example, the cost of durability (quality) was 36978 dinars for the research sample company. The amount of 27363 dinars was for the competing company, with a difference of 9615 dinars, with a percentage of 35%. The total percentage of attributes costs, and the representation of these results in a relative circle, is shown in Figure (5) as follows:

Figure 5: Energy costs related to costs



Source: Preparing the researcher based on the schedule (7)

It is noted from Figure (5) the variation of the percentage of costs associated with the energy for each attribute of the product. If the company's attributes are higher than those of the competing company, the percentage of quality attribute costs (durability) represents 35% of total attribute costs. Then comes the cost of attribute area (volume) at 18%, and the cost of the design attribute (modernity) is 17%; the cost attribute safety (reliability) is 16 %, Finally, the cost attribute performance of services percentage is 14%, for the product (apartment) of the research sample company and the low of the competing company.

Comparison Cost Related to the Decisions

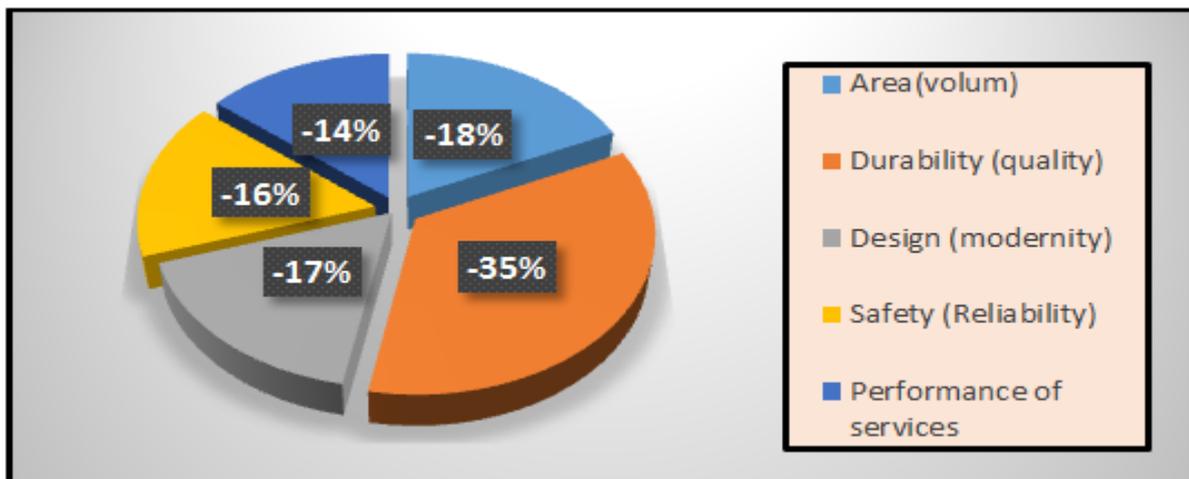
Table 8: Shows Comparison cost related to the decision of Al-Mansour State Company for Construction Contracting (research sample) and the fourth-dimension group company (the competing company)

Attributes	(1) The costs related to the decision of Al-Mansour General Contracting Company (Dinar)	(2) The costs related to the decision of the fourth-dimension group company (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
Area (size)	264,096	270,000	(5,904)	(18)
Durability (quality)	513,520	525,000	(11,480)	(35)
Design (modernity)	249,424	255,000	(55,76)	(17)
Safety (Reliability)	234,752	240,000	(5,248)	(16)
Performance of services	205,408	210,000	(4,592)	(14)
Total	1,467,200	1,500,000	(32,800)	100

Source: Based on the data of the two companies

In Table (8), the costs associated with the decision are calculated; the difference in the total costs was 32,400 dinars; for example, the cost of safety (reliability) was 23,4752 dinars for the research sample company. The amount of 240,000 dinars was for the competing company, with a difference of 5,248 dinars, with a percentage of 16%. Of the total percentage of attributes costs, the representation of these results in a relative circle, is shown in Figure (6) as follows:

Figure 6: Decision costs related to costs



Source: Preparing the researcher based on the schedule (8)

It is noted from Figure (6) the variation of the percentage of costs associated with the decision for each attribute of the product. If the company's attributes are lower than those of the competing company, the percentage of quality (durability) attribute costs represents 35% of total attribute costs; then comes the cost of the attribute area (volume) at -18%, the cost of attribute design (modernity) is -17%, and the cost attribute safety (reliability) is -16 %. Finally, the cost attribute performance of services percentage is -14%. Through the comparison, we note that the lower costs associated with the decision (administrative costs, for example, and advertising and promotional advertising costs) of the research sample company and their rise for the competing company. This means that the company spends additional sums to promote its products in the market. Table (8) shows the comparison of the total cost of each attribute of the product attributes for Al-Mansour General Contracting Company (the research sample company) and the Fourth Dimension Group Company (the competing company) in the following:

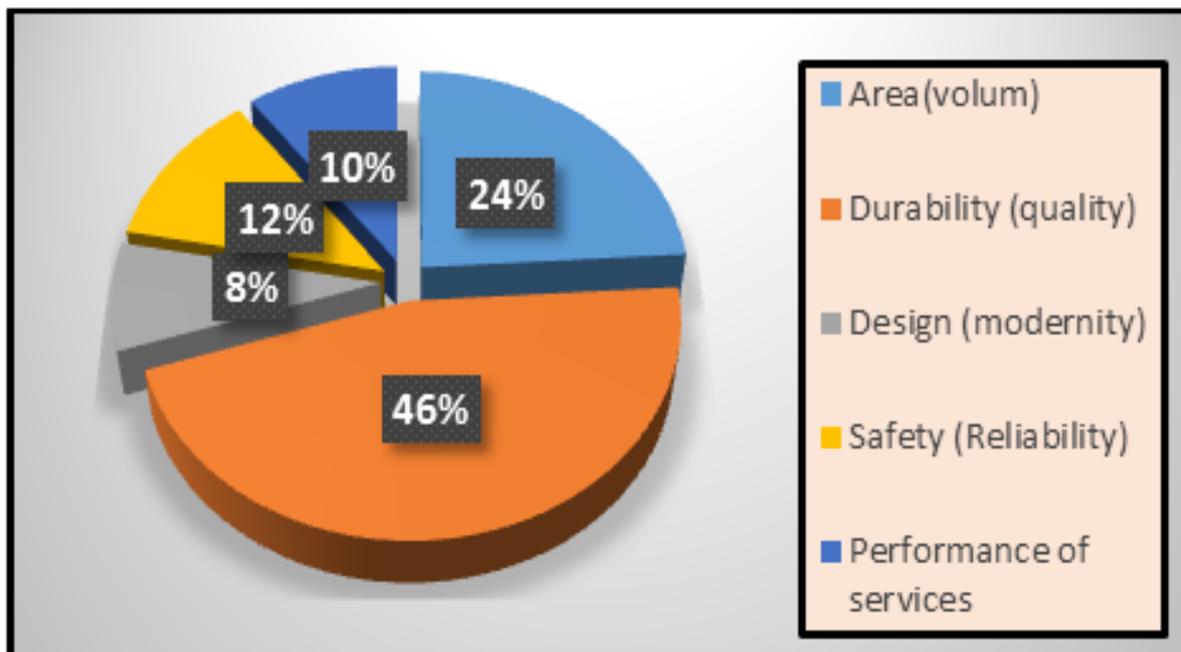
Table 9: Compare the total cost of each attribute of the apartment product to Al-Mansour General Contracting and the Dimension Group Company (the competing company)

Attributes	(1) The total costs of the attribute for Al-Mansour General Contracting Company (Dinar)	(2) The total cos attribute for fourth-dimension group company (Dinar)	(1-2=3) The difference (Dinar)	(1÷3 =4) The ratio %
Area (volume)	22,356,301	18,847,578	3,508,723	24
Durability (quality)	39,009,206	32,172,130	6,837,076	46
Design (modernity)	13,123,559	11,979,995	1,143,564	8
Safety (reliability)	7,693,789	5,948,035	1,745,754	12
Performance of services	7,788,494	6,245,383	1,543,111	10
Total	89,971,349	75,193,121	14,778,228	100

Source: Based on the data of the two companies

Table (8) shows that the difference between the cost of the company's product (the research sample) and the competing company After the cost technique was applied based on attributes , an amount of (14778228) dinars, For example, the total cost of the attribute for performing services is (7788494) dinars for the research sample company, The competing company has an amount of (6245383) dinars, a difference of (1543111) dinars, at a rate of (10%) of the total percentages for the attributes costs, And its representation in a circle relative to the total attributes costs as in Figure (7) as follows: -

Figure 7: Total costs of attributes



Source: Preparing the researcher based on the schedule (9)

Figure (7) shows the comparison of the total cost of each of the product attributes of the Al-Mansour State Company for Construction Contracting (The company sample search) and the Fourth Dimension Group Company (the competing company) When applying cost technology based on attributes, a variation of the ratio of the total costs of the product attributes (the apartment) is observed. The ratio of the cost of the durability attribute (quality) to the research sample company was 46% higher than the competing company; then came the attributes of area (volum) at 24%, safety (reliability) attribute at 12%, and the attribute of performance of services percentage (10%). Finally came the attribute for (modernity) design at 8%. By comparison, we note that the research sample company and the competing company were keen to provide products of high quality. However, the products of the competing company were at a lower cost than the research sample company. Table (10) shows the total attributes:

Table 10: Total attributes cost ratios

Attribute	The proportion of costs associated with the volume of production %	The percentage of costs associated with the activity %	The proportion of costs associated with energy %	The percentage of costs associated with the decision %
Area (volume)	24	22	18	(18)
Durability (quality)	43	54	35	(35)
Design (modernity)	7	11	17	(17)
Safety (reliability)	15	4	16	(16)
Performance of services	11	9	14	(14)
Total attributes' cost ratios	100	100	100	100

Preparing the researcher according to the tables 5, 6, 7, 8.

Based on the above tables, the researcher sees the success of any company depends on its improvement in its levels of performance. Related to the key success factors, by improving dimensional indicators for competitive advantage, represented by cost, quality, and time (delivery), it includes responding to customer requirements and needs. By providing high quality products at low cost and in record time, it can differentiate itself from competitors in the market, and the competing company has competitive capabilities that distinguish it from the company (the research sample). It also requires the research sample company and the competing company to use cost technology based on attributes when calculating the costs of its products. It helps them reduce the cost of the product (apartment) at a lower price than competitors, improving the quality of its products. By doing so, they outperform the competitors, because they have the ability to improve their products and services instead of using traditional systems. By analysing the cost based on an attribute on a part of the product to arrive at the cost of each part, they achieve a competitive advantage. Also, the company (the research sample) must use the Ready building (pre-cast) technology used by the competing company in their work, because these technologies will reduce material costs and save time. It also reduces workers' wages and makes them offer high-quality products to their customers, including strength and durability, resistance to breakage in construction, measurement accuracy, ease of construction, moisture insulation, quick response and workmanship quality. It also seeks to adhere to the deadlines attribute when delivering products to customers, has the ability to meet customers' urgent requirements, and has a rapid

response to changes in product designs. The changes taking place in the market, as well as providing various products with modern designs and dealing with high flexibility with the variables of the internal and external environment, also gives them the ability to create successful partnerships with their customers in all stages of construction through a high level of professionalism. These technologies are technically and economically appropriate, while building bricks leads to the company incurring raw materials and working hands that increase the cost of the product. This justifies the high cost of the product of the research sample company, as well as delaying delivery of the product to the customer. So it does not achieve a competitive advantage because modern construction technologies are less expensive. It also achieved time savings, and the resulting costs compared to the traditional construction whose costs are high, are lower as well as the length of time the product is implemented. Thus, the company (the research sample) can achieve a competitive advantage represented by its dimensions (cost, quality, and time).

Conclusion

- 1- Non-use of the company (the research sample) and the competing company of cost technology based on attributes (ABCII), prevents them from achieving many benefits, including lower cost of the product, improved response to changes in customer needs and desires, by producing high-quality products at reasonable prices and in record time.
- 2- The company (the research sample) does not use modern building technologies, these technologies help them reduce the cost of raw materials and labour.
- 3- The company (the research sample) does not take into account the attributes that the customer desires; this helps him monitor its costs and avoids any waste or cost loss.
- 4- The high costs of purchasing the company's raw materials (research sample), because it buys materials from the private sector at high prices, compared to the competing company, which has factories to create raw materials.
- 5- The high cost of its workforce and the lack of craftsmen to perform jobs such as carpentry, electrical works and mechanical works, as they depend on the private sector to carry out these actions, which costs them high amounts of money, which leads to a higher cost of its product compared to the competing company.

Recommendations

- 1- Invitation to the research sample company and the competing company, to apply cost technology based on attributes (ABCII) that will achieve many benefits, including lower product cost and improve response to changes in customer needs and desires, by producing high-quality products at reasonable prices and in record time.
- 2- The need to apply cost technology-based (ABCII) on attributes because it helps to reduce the cost of the product and stay in the market and achieve a competitive advantage.



- 3- The necessity to focus on the customer to determine the attributes he desires and, the importance of each attribute for him to monitor its costs to avoid any waste or excessive cost.
- 4- The company (the research sample) should use modern building techniques instead of the traditional building that one uses, and this will reduce the cost of raw materials and labour.
- 5- The company (the research sample) should set up factories for raw materials to reduce the costs of purchasing materials from the private sector.
- 6- The company (research sample) must recruit and train workers to perform jobs, such as carpentry, electrical works, mechanical works, as they depend on the private sector to do these tasks, which costs them large amounts of money, which leads to a higher cost of its product compared to the competing company.

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