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The role of the technology of disseminating the quality function in improving the value of the product and achieving competitive advantage (an applied study in the men's clothing factory in Najaf)

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Abstract : The primary goal of the research is to examine how to effectively communicate the quality function and highlight how it contributes to increasing product value and gaining a competitive edge in a way that is both appropriate for the demands of the modern business world and appropriate for the state of the Iraqi business environment at the moment. This year was chosen because it is more reflective of the factory's present situation than previous years, as well as the factory's vulnerability to the issue of depreciation. The men's clothing factory in Najaf was applied to the men's suit product for the fiscal year ending on 31/12/2022. The research came to several conclusions, the most significant of which was that there is a possibility of applying the technology of deploying the quality function in light of the strategic approach to cost management in order to improve the value of the product in terms of improving its functional entitlements and reducing its costs, and this application helps to achieve competitive advantage by improving the indicators of cost, quality, time, flexibility, creativity, or innovation. Products and not achieving competitive advantage this year when compared with competing products to improve customer satisfaction and competitive advantage through the entire product development process, allowing economic units to provide high-quality products.

Keywords : Technology of disseminating quality function, product value, competitive advantage.

Introduction: The contemporary business environment has witnessed rapid and successive developments, and the most important of these developments are scientific and technological development, the information revolution, communications, globalization, changing needs and tastes of customers and focusing on the customer, as well as the emergence of contemporary costly and administrative techniques that are more suitable for the requirements of this environment and the accompanying rapid and successive changes and developments, and these techniques include the technology of disseminating the quality function, the technology of spreading the quality function.It is one of the quality tools that help economic units to transform the requirements of the consumer or customer into product specifications that meet the desires of the customer or consumer, and it is the process of designing a customer-oriented product and an approach to improve customer satisfaction and competitive advantage through the entire product development process, allowing economic units to provide high-quality products that meet or exceed customer expectations so that customer requirements or the so-called customer voice are reconciled with the engineering requirements called the engineer's voice in the form Which is commensurate with different environmental changes.

The first topic: research methodology

First: The research problem:

The research problem is that Iraqi economic units have high costs and low quality relative to competing foreign products in the local market. These units also have low product value from the perspective of the economic unit and customers. Furthermore, these units struggle to achieve the necessary competitive advantage in terms of cost, quality, time, flexibility, creativity, or innovation, and in spite of this, they do not use technologies. Contemporary pricing and administrative methods, among which the technology of disseminating the quality function is the most significant.

Second: The importance of research:

The importance of the research lies in the importance of the technology of disseminating the quality function and its role in improving the value of the product and achieving competitive advantage, as the technology of spreading the quality function is a way to meet the needs of customers and know their requirements and redesign the product in line with those requirements by listening to the voice of the customer who enables the economic unit to improve and increase the quality of its products to improve customer satisfaction and competitive advantage through the entire

product development process, allowing economic units to provide high-quality products that meet or exceed customer expectations.

Third: Research Objectives:

The research mainly aims to study the technique of disseminating the quality function and demonstrating its role in improving the value of the product and achieving competitive advantage, in a manner commensurate with the requirements of the contemporary business environment and commensurate with the current conditions of the Iraqi business environment in general and the textile industries in particular.

Fourth: Research hypothesis:

The research is based on the basic premise that the application of quality function deployment technology can help economic units improve product value and achieve competitive advantage.

Fifth: Research Limits:

The spatial boundaries of the research are represented by the men's clothing factory in Najaf, as this factory specializes in manufacturing various products such as men's suits and others, andthe time limits of the research are represented in the fiscal year ending on 31/12/2022, and this year was chosen because it is closer to the current reality of the factory than other years, as well as the factory's exposure to the problem of low value of products and not achieving competitive advantage in this year when compared with competing products.

Sixth: Research Methodology:

In order to achieve the objectives of the research, two scientific approaches were followed, namely the deductive approach and the inductive method, the deductive approach was followed in the theoretical aspect, either the inductive approach was followed in the applied side of this research.

The second topic: the theoretical aspect of the research

First: The concept of the technology of disseminating the quality function:

The technology of deploying the quality function is one of the most effective methods in the field of quality systems, it has revolutionized quality management, as it represents a shift from the traditional focus on results to focus on how these results are achieved, including improving product quality, reducing costs, improving the product development process and ensuring that it meets customer needs (Nikolaeva, et.al., 2020: 859) .

The quality function deployment technique is a planning process that helps the economic unit to effectively implement various technical support tools and complement each other to prioritize each problem, and therefore it is a way to improve the quality of products by understanding the needs of consumers and then linking those needs to the technical characteristics of producing products in each process of making products (Bahia, et.al., 2023:3) .

Quality function deployment technology is seen as a method of continuous product improvement with the impact of organizational learning on innovation and focus on the right strategy to improve product quality and to increase customer satisfaction, and thus it is a way to improve or develop product quality and design the customer's needs in the product being designed, that is, it is a systematic approach to integrate the customer's voice into product design and development in addition to providing the greatest potential for great benefits (Asadabadi, et.al.,2023: 278-279) .

The technology of publishing the quality function is a technology directed to customers for product development to link commercial records with technical characteristics of products to translate the requirements of customers or consumers according to the requirements of the economic unit at each stage of research through product design and development to manufacturing, distribution, installation, marketing and sales service, which is an effective method that helps economic units to analyze customer requirements and then convert these ready-made records into product characteristics, which are translated into other features that are appropriate to the customer's requirements and consistent with Its expectations are better than competitors in the competition market (Sari,et.al.,2023:156) .

Based on the above, it can be said that the technology of deploying the quality function is one of the strategic cost management techniques directed towards the customer, through which customer requirements are translated into engineering and technical specifications, and this is taken into account during the research and development stage and the design stage, meaning that this technology works to translate the customer's voice and planning it and translate the quality characteristics of products and processes to reach customer satisfaction and loyalty.

Second: Objectives of the technology of disseminating the quality function:

The technology of deploying the quality function represents a challenge and an opportunity for senior management in the economic unit to compensate for the traditional focus on results and replace it with a focus on how to achieve results by reducing efforts and reducing the time it takes to redesign, and the objectives of the quality function deployment technology can be clarified through the following:

1. **Simplify the product development process**: Quality function deployment technology aims to simplify the product development process by identifying the needs and requirements of customers and translating them into design characteristics and specifications to reduce the time and resources required for the development of

new products, and the product development process is simplified through the technology of deploying the quality function through Concept generation, feasibility analysis, design, development, testing, validation and product launch (Branson,2023:4-5) .

2. **Reduce design and remake changes**: Quality function deployment technology can help reduce the number of design and rework changes required during the product development process by identifying customer needs and design requirements in advance, so that the product is properly designed the first time, which can help the product quickly reach the market (Yilmaz, 2011:16) .

3. **Promoting innovation and creativity**: The technology of disseminating the quality function can enhance innovation and creativity by encouraging the team to think outside the box when developing new products, as there are many mechanisms that can be followed through this technology to promote innovation and creativity in economic units (Muslimina, et.al.,2023:258-259) .

4. **Effective communication between all parties**: The technology of disseminating the quality function aims to improve communication and cooperation between departments and between teams within the economic unit by involving all stakeholders in the product development process, as all the ideas put forward are taken advantage of that would help in developing and improving the product according to the requirements and needs of customers (Kasaei, et.al., 2014: 913) .

5. **Quality improvement**: The technology of deploying the quality function improves the quality of the product and helps the economic units to understand the requirements and needs of customers, which helps to redesign the product in a way that increases customer satisfaction with the products of the economic unit, as the technology of deploying the quality function requires identifying the basic needs of the customer repeatedly The customer will try to express their needs in terms of "how" can satisfy the need and there are no conditions for "what" the need, and this determines the consideration of development alternatives Marketing staff must ask "why" in order to truly understand what the customer needs (Junior, et.al., 2019:3) .

6. **Increase customer loyalty and market share**: By focusing on customer needs and expectations, the technology of deploying the quality function can help increase customer satisfaction and loyalty in a way that leads to an increase in market share and profitability over time, and customer loyalty is described as a continuous emotional relationship between the economic unit and its customers, and this is reflected in the extent to which the customer wants to communicate with this unit (Bahia, et.al.,2023:3) .

From the above, it can be said that the objectives of the quality function deployment technology are to simplify the product development process, reduce design and remanufacture changes, promote innovation and creativity, effective communication between all parties, control costs, reduce costs, increase profits, improve quality, increase customer loyalty and market share.

Third: The role of the technology of spreading the quality function in improving the value of the product:

The role of quality function deployment technology in improving the functional benefits of the product can be illustrated by improving both the performance and quality of the product in addition to reducing its unnecessary costs and thus improving its value, as illustrated by the following: (Junior, et.al.,2019:3), (Liu,et.al.,2021:2) (Branson,2023:4-5)

1. The technology of disseminating the quality function simplifies the process of product development by identifying the needs and requirements of customers and translating them into the characteristics and specifications of the design and working to improve the components and functions of the product, which leads to improving its performance, as the efforts of creativity and ideas put forward to improve the value of the product can increase the importance of this technology by improving the functional performance of the product and its quality while reducing its costs.

2. The technology of spreading the quality function helps to improve the quality of the product by redesigning the product in a way that increases customer satisfaction, as a result of providing products that suit the needs and requirements of customers and thus improve product quality better than competitors, and thus quality is a competitive advantage that indicates that the thing is done correctly from the first time.

3. The technology of deploying the quality function reduces costs, and many studies conducted by (Toyota) have indicated that costs have decreased by 60% when applying this technology due to the exclusion of unjustified costs when designing the product, and that the economic unit must follow the appropriate competitive strategy that suits its capabilities, capabilities and resources to reduce costs while maintaining the acceptable level of quality.

It is clear from the above that the technology of deploying the quality function can help improve the value of the product through the pursuit of this technology to improve the functional benefits of the product by improving the functionality and quality, as well as the pursuit of this technology to reduce unnecessary and unjustified costs and work to provide products that cost less than the cost of competitors.

Fourth: The role of the technology of deploying the quality function in achieving competitive advantage:

The technology of deploying the quality function is one of the strategic cost management techniques appropriate to the requirements of the contemporary business environment, which helps economic units to achieve competitive advantage, and the role of quality function deployment technology in achieving competitive advantage can be clarified through the following:

1. **The role of quality function deployment technology in achieving the lowest cost dimension**: Quality function deployment technology aims to reduce production costs due to avoiding unjustified design cost due to the company's lack of need to make adjustments in production design processes, and thus through this technology it is possible to achieve the competitive advantage of the economic unit by achieving the lowest cost dimension (Arabiyyat, 2016:39) .
2. **The role of quality function dissemination technology in achieving the high quality dimension**: The quality function deployment technology helps to improve product quality by understanding the requirements and needs of customers, which helps to redesign the product in a way that increases customer satisfaction with the products of the economic unit, and thus through this technology it is possible to achieve competitive advantage by achieving the dimension of high quality (Junior, et.al.,2019:3) .
3. **The role of quality function deployment technology in achieving the dimension of the lower customer response time**: Quality function deployment technology helps reduce the response time of the customer by reducing the number of necessary design and rework changes required during the product development process according to the wishes of customers, and thus through this technology it is possible to achieve competitive advantage by achieving the flexibility dimension (Hernandez, et.al.,2021:135) .
4. **The role of quality function deployment technology in achieving flexibility in responding to changes in customer needs and desires**: Quality function deployment technology provides sufficient flexibility in production processes by simplifying the product development process by identifying customer needs and translating them into characteristics and specifications (Branson,2023:5) .
5. **The role of quality function dissemination technology in achieving the dimension of creativity or innovation**: The technology of disseminating the quality function helps provide a stimulating and appropriate work environment for creativity and encourages workers to think creatively (Muslimina, et.al.,2023:259) .

Based on the above, it can be said that the technology of deploying the quality function plays an important role in achieving competitive advantage by helping to reduce costs, improve product quality and process, achieve time savings, provide sufficient flexibility and achieve the dimension of creativity or innovation, which helps economic units adapt to the changes of the competitive business environment.

The third topic: the applied side of the research

First: An introductory summary of the research sample:

The factory that produces ready-made clothing was founded in 1985 in Najaf. It started experimental production in 1987 and started actual production in 1988. The factory holds a prominent position in the State Company for Textile and Leather Industry because it has made significant advancements in design and separation using the Kerber electronic system and has also been awarded an international quality certificate. Production levels of the factory's products have significantly decreased, and many of its manufacturers have ceased producing or have shifted to erratic production schedules. This production reduction was Because of the country's experiences with the events that followed 2003 and beyond, it saw a decline in manufacturing productivity as a result of becoming more open to the outside world and welcoming rival products.

Second: The application of the technique of spreading the quality function in the men's clothing factory in Najaf:

In order to apply the technique of spreading the quality function in the men's clothing factory in Najaf, a set of steps must be followed, which are as follows:

First: Product Planning: During this step, the men's suit product is planned through the construction of a quality house, as it documents the requirements of customers, warranty data and the technical ability of the factory to meet the customer's requirements, and it can be clarified how to plan the men's suit product through the following:

(1) Determine the customer's requirements: The first task of the team is to know the customer's requirements that he wants to meet in the men's suit product, as there are seven basic requirements for customers, namely aesthetic, strength, durability, softness, price, color, company reputation and availability of agents and distributors, so the relative importance of the customer's requirements will be determined,

(2) Competitive evaluation of the customer : This paragraph represents the evaluation of customers for the product of the men's suit produced by the men's clothing factory in Najaf in order to know the extent of the factory's response

in meeting the requirements of customers, and the contents of the questionnaire for the evaluation of customers for the product of the men's suit have been unloaded as shown in the following table:

Table (1)Unpacking the contents of the questionnaire for customer evaluation of the men's suit product

No.	Customer's Requirements	Very available	available	Somewhat available	Out Of Stock	Not available at all
		5 shades	4 degrees	3 degrees	2 degrees	1 degree
1	Aesthetic	35	5	6	3	1
2	Strength and durability	42	4	1	1	2
3	Softness	10	7	3	2	28
4	Price	30	14	2	1	3
5	Color	5	5	7	9	24
6	Company reputation	45	2	1	1	1
7	Availability of agents and distributors	32	3	6	5	4

Source: Preparation of the researcher based on the outputs of the questionnaire.

It is clear from the above table that there is a clear problem in the characteristics of softness and color, as 28 individuals believe that the softness property is not available in the product of the men's suit of the factory of the research sample, and there are 24 individuals who believe that the color characteristic required by the customer is not available in this product, which requires the factory management and the work team for the integration of the targeted cost and deployment of the quality function to take this into account when designing the product. (50) forms were distributed to a group of customers to determine the extent to which the factory provides the research sample for the requirements desired by the customer, and after emptying the contents of the questionnaire for the customer's evaluation of the men's suit product, the researcher prepared a table of the weighting total of the results of the questionnaire, in the light of which the relative importance of these evaluations is determined and degrees were given to arrange the relative importance of each, and the weighting weight, weighted total, arithmetic mean and relative importance can be clarified according to the customers' evaluation of the men's suit product through the following table:

Table (2)Weight, weighted total, arithmetic mean and relative importance according to customers' evaluation of men's suit product

No.	Customer's Requirements	Weighting					Weighted Total	Materiality %	Order
		Very available	available	Somewhat available	Out Of Stock	Not available at all			
1	Aesthetic	175	20	18	6	1	220	16.42%	3
2	Strength and durability	210	16	3	2	2	233	17.39%	2
3	Softness	50	28	9	4	28	119	8.88%	6
4	Price	150	56	6	2	3	217	16.19%	4
5	Color	25	20	21	18	24	108	8.06%	7
6	Company reputation	225	8	3	2	1	239	17.84%	1
7	Availability of agents and distributors	160	12	18	10	4	204	15.22%	5
	Total	995	160	78	44	63	1340	100%	

Source: Prepared by the researcher based on the data of the previous table.

It is noted from the above table that the aesthetic requirement was the weighting group (220) and its relative importance (16.42%) and its rank (3), either the strength and durability requirement was the weighting group (233) and its relative importance (17.39%) and its rank (2), while the smoothness requirement was the weighting group (119) and its relative importance (8.88%) and its rank (6), and the price requirement was the weighting group (217) and its relative importance (16.19%) and its rank (4), and the color requirement was the weighting group (108) and its relative importance (8.06%) and its rank (7), as well as The company's reputation requirement was the weighting group (239), its relative importance (17.84%) and its rank (1), and finally, the requirement for the availability of agents and distributors was the weighting group (204) and its relative importance (15.22%) and its rank (5), and it is also noted that the company's reputation has ranked first because the factory was a pioneer in the Iraqi textile industries, either the color requirement came in last place, because the factory's production was limited during the year

2022, as the focus was on certain colors without other colors that he may want It is preferred by customers, while the rest of the requirements were between these two requirements.

(3) Determine the engineering characteristics according to the customer's requirements (engineer's voice): After understanding the customer's voice, the next step is to determine the engineering characteristics that should be available in the cement product in light of the customer's requirements that were previously determined, and the engineering characteristics of the men's suit product can be clarified as shown below:

1. **Absorption**: The fabrics used in the manufacture of the men's suit absorb water and sweat excellently, as it can absorb up to three times its weight in water, and this is what makes the product comfortable in clothing in hot weather.
2. **Easy dyeing**: Cotton fibers can be dyed in any color and converted into a variety of colors due to its absorbent nature and ability to retain colors well.
3. **Resistance to the accumulation of static electricity**: The fabric used in the manufacture of men's suit in the factory of the research sample does not work to conduct electricity, so static electricity is not a problem with the product under study.
4. **Comfort when using**: The fabric used in the manufacture of the men's suit in the research sample factory is characterized by its natural softness, which makes it comfortable to wear and touch the skin and therefore it is suitable for wearing it for long periods during the day.
5. **Durability and resistance to wear and damage**: The fabric used in the manufacture of men's suit in the research sample factory has a strong cellular structure, which makes it durable and resistant to corrosion and damage, which prolongs the life of the product.
6. **Suitability for skin sensitivity**: Natural cotton used in the manufacture of men's suit in the factory research sample does not expose the skin to irritation and does not feel it, unlike synthetic fibers.
7. **Ease of care**: The cotton used in the manufacture of men's suit in the factory research sample is easy to care, as it can be washed and ironed easily, and it does not require much special care or the use of dry cleaning.

(4) Formation and identification of the relationship matrix: This step seeks to find a link between the expectations of the customer and the ability of the factory sample research to achieve those expectations, and the relationship between the voice of engineers and the desires of customers is found, which is translated into technical responses, and after preparing the matrix of the relationship between the requirements of the customer and the engineering characteristics of the product of the men's suit, the amount of strength of the relationship between them will be determined and arranged according to its relative importance and as shown in the next step.

(5) Formation and determination of the correlation matrix: After determining the type of relationships between the customer's requirements and the geometric characteristics of the men's suit product, this relationship will be translated according to the weights specified in the previous table into ratios in order to identify the importance of each of the engineering characteristics according to each requirement of customers, the absorption property was weighted (103.91) and its relative importance (8.13%) and its ranking (6), either the characteristic of ease of castingThe weighted total was (350.3) and its relative importance (27.42%) and its rank (1), while the property of resistance to the accumulation of static electricity was its weighted sum (165.37), its relative importance (12.95%) and its rank (4), and the property of comfort when using was its weighted sum (147.52), its relative importance (11.55%) and its rank (5), and the property of durability and resistance to wear and damage was its weighted sum (263.52), its relative importance (20.63%) and its rank (2), either the property suitable for skin sensitivity had a weighting total of (170.75) and its relative importance (13.37%) and its ranking (3), and finally, the property of ease of care was weighted sum (76) and relative importance (5.95%) and ranked (7).

(6) Matrix of target values for technical specifications: In this step, the team tries to create the standard target values for each technical descriptor, and it is very important to analyze the level of standard values of the product to meet the needs of the customer by multiplying the weight of each relationship in it with the corresponding degrees of customer requirements, as shown in the following table:

Table (3)Setting the target values for the men's suit product

No	Customer's Requirements	Engineering Properties (%)							Total
		Suck	Easy to dye	Resistance to static electricity accumulation	Comfort when using	Durability, wear and wear resistance	Adaptable for skin sensitivity	Ease of care	
1	Aesthetic	0	5	0	0	0	0	0	0
2	Strength and durability	5	1	0	0	5	3	0	5
3	Softness	0	3	0	5	3	5	0	0

4	Price	0	5	5	0	5	0	0	0
5	Color	3	5	1	1	1	0	0	3
6	Company reputation	0	5	5	5	5	5	0	0
7	Availability of agents and distributors	0	0	0	0	0	0	5	0
Materiality (%)		8.13%	27.42	12.95	11.55	20.63	13.37	5.95	100
Technical evaluation of engineering properties		65	658	142	127	392	174	30	1588
Technical assessment of customer requirements		81	112	193	234	112	367	76	1175
The gap between the evaluation of engineering characteristics and customer requirements		16	-546	51	107	280-	193	46	413-
Target Values		Use a fabric that absorbs water and sweat perfectly	Dye cotton fibers in colors that are absorbent and color-preserving	Using a fabric that does not connect electricity	Use of high-tech sewing machines	Strengthening the parts of the suit that are most likely to have tears in it	Choose a fabric in which the mixing ratio of natural materials exceeds synthetic materials	Use high-quality bags and bags	Improving the quality and performance of the men's suit in general

Source: Prepared by the researcher based on the previous two tables.

Second: Product Design: During this step, ideas are converted into tangible products and a variety of planning and implementation processes are followed to work on designing a product that can meet the requirements of customers and carry the required engineering and technical characteristics, and in the previous step a set of engineering characteristics with a negative gap were identified when conducting technical evaluation and technical evaluation of the customer's requirements for the men's suit product, and these characteristics are as follows:

1. Easy dyeing of men's suit.
2. The durability of the men's suit and its resistance to wear and damage.
3. Improving the quality and performance of the men's suit in general.
4. Improving the production process.

The components and raw materials that meet these characteristics and the cost of each can be identified, as shown in the following table:

Table (4)Engineering characteristics to be improved and the cost of each of them for the men's suit product

t	Engineering properties to be improved	Raw materials for it	Cost (JD)	
			Total production	per suit
1	Easy dyeing of men's suit	Cloth	372008000	23725
2	The durability of the men's suit and its resistance to wear and damage	Transparent threads	3857280	246
		Ordinary threads	3763200	240
		The most threaded	2744000	175
		silk threads	752640	48
		Threads of the house of the dumme (buttons)	501760	32
		Apaulettes	17248000	1100
3	Improving the quality and performance of the men's suit in general	Textile adhesive padding	7683200	490
		Pocket lining	21952000	1400
		muslin	3057600	195
		Thermal paper	7056000	450
		Marking paper	1881600	120
		Mito Bar	9800000	625
4	Improving the production process	Direct wages	465617282	29695
		T a S G directly	182562240	11643
	Total		1100484802	70184

Source: Preparation of the researcher based on the data available in the factory.

It is clear from the above table that the cost of engineering characteristics to be improved was (1100484802) dinars for the total production and (70184) dinars for one suit, and after deliberation with design and production engineers in the men's clothing factory in Najaf, it turned out that there is a set of things that can be clarified through the following:

1. The fabric used in the manufacture of men's suit is mohair fabric is a fabric similar to silk, but made of angora goat hair, and mohair fabric is known for its durability, softness, shine and distinctive luster, and is characterized by its ability to absorb moisture and resist stretching and frizz. It is frequently used in tailoring men's suits ideal for formal occasions, because it represents a symbol of elegance, sophistication and luxury, for youThe problem with this type of fabric is the difficulty of dyeing in dark colors, and if I want to manufacture a men's suit in a dark color, this will lead to an increase in the cost of fabric to approximately (25%) of the cost of the men's suit with a dark color, as a result of the use of additional quantities in dyes. The solution here is to replace the mohair fabric with velvet fabric, which is characterized by its soft texture and short dense pile that gives the body the necessary warmth in winter and sophistication and elegance at the same time. Velvet fabric lasts long if well maintained and washed in the right way. Velvet is included in several types of men's clothing, including velvet men's suits that give a distinctive impression from the first moment to the wearer, knowing that the cost per meter of velvet fabric is (4250) dinars, and if this fabric is used, the cost of cloth in one suit will become (15513) dinars (3.65 meters × 4250 dinars), after the cost of mohair cloth is (23725) dinars per suit, meaning that this will help reduce the cost of fabric per suit by (8212) dinars (23725 dinars – 15513 dinars).
2. The threads used in the manufacture of men's suit are silk threads, and after deliberation with design and production engineers in the factory research sample that there is a possibility of using cotton threads that are characterized by durability, flexibility and endurance.
3. The epaulet used in the manufacture of the men's suit cost (1100) dinars per suit, and in order to increase the durability of the men's suit can be used shoulders with a reinforced sponge, which costs (1250) dinars, and the use of this material will lead to an increase in the cost by (150) dinars per suit.
4. For textile adhesive filling, pocket lining, gauze, thermal paper, marking paper and mito tape, other types of these materials can be used, but to a higher quality degree.
5. Through field coexistence in the factory sample research and deliberation managers and officials in the factory turned out that there is an increase in the number of workers and they are surplus to the need of the production line for the manufacture of men's suit.
6. When designing the men's suit product, the team in charge of applying the quality function deployment technique must observe and identify any activity that does not add value, in order to indicate the possibility of removing this activity and getting rid of it in order not to hinder the production processes.

Table (5)The cost of engineering features after improving the men's suit product for the year 2022

No.	Engineering properties to be improved	Raw materials for it	Cost (JD)	
			Total production	per suit
1	Easy dyeing of men's suit	Cloth	243243840	15513
2	The durability of the men's suit and its resistance to wear and damage	Transparent threads	2696960	172
		Ordinary threads	2634240	168
		The most threaded	1928640	123
		silk threads	533120	34
		Threads of the house of the dumme (buttons)	344960	22
		Apaulettes	19600000	1250
3	Improving the quality and performance of the men's suit in general	Textile adhesive padding	8624000	550
		Pocket lining	11760000	750
		muslin	3136000	200
		Thermal paper	7448000	475
		Marking paper	1960000	125
		Mito Bar	9408000	600
4	Improving the production process	Direct wages	349209280	22271
		T a S G directly	155184960	9897
	Total		817712000	52150

Source: Preparation of the researcher based on the data available in the factory.

It is noted through the above table that the cost of engineering characteristics after improvement has become (817712000) dinars for the total production and (52150) dinars for one suit, after it was (1100484802) dinars for the total production and (70184) dinars for one suit, meaning that the amount of reduction in cost will be (282772802) dinars for the total production and (18034) dinars for one suit during the research year.

Third: Process planning: This step comes after the product design process and is led by manufacturing engineering during process planning in the economic unit, where manufacturing processes are planned and the process or target values are documented, and here emphasis is placed on improving the production process in the men's clothing factory in Najaf through the use of fabric that absorbs water and sweat excellently, as well as dyeing cotton fibers in colors of an absorbent nature and preserving colors.

Fourth: Quality process control: In order to control the quality process in the men's clothing factory in Najaf honor, it is necessary to start the process of applying the technology of spreading the quality function in this factory and on the production line of the men's suit, as well as reviewing the previous steps contained in the current research to achieve the objectives of the factory of reducing costs, improving production methods, developing them and improving the value of the product in accordance with the requirements of customers.

Third: Improving the value of the product and achieving competitive advantage in the research sample using the technique of spreading the quality function:

In order to demonstrate the role of the integration of the targeted cost and quality function technology in improving the value of the men's suit product, the value index must be calculated by dividing the functional benefits by the functional cost of the men's suit product, so that the value index for the men's suit product functions can be calculated before and after the integration of the target cost and quality function deployment techniques for the year 2022, as shown in the following table:

Table (6)Value Index for Men's Suit Products Jobs Before and After Integration of Target Cost and Quality Job Deployment Technologies for 2022

Function	Before the integration of TC and QFD technologies)			After the integration of TC and QFD technologies)		
	Job Entitlement (%)	Functional cost (%)	Value Index	Job Entitlement (%)	Functional cost (%)	Value Index
F1	3.875	26.58	0.15	3.875	21.78	0.18
F2	3.2092	3.23	0.99	3.2092	4.04	0.79
F3	3.2604	1.88	1.73	3.2604	2.36	1.38
F4	3.5258	0.5	7.05	3.5258	0.63	5.6
F5	2.9869	0.55	5.43	2.9869	0.77	3.88
F6	3.3333	1.57	2.12	3.3333	1.05	3.17
F7	3.3276	0.22	15.13	3.3276	0.28	11.88
F8	3.249	0.45	7.22	3.249	0.57	5.7
F9	3.2375	0.3	10.79	3.2375	0.38	8.52
F10	2.9046	0.46	6.31	2.9046	0.58	5.01
F11	3.1464	3.02	1.04	3.1464	3.79	0.83
F12	3.6421	1.57	2.32	3.6421	1.97	1.85
F13	3.1188	0.28	11.14	3.1188	0.24	13
F14	3.1654	0.27	11.72	3.1654	0.24	13.19
F15	3.2332	0.2	16.17	3.2332	0.17	19.02
F16	2.9	0.05	58	2.9	0.05	58
F17	3.6332	0.04	90.83	3.6332	0.03	121.11
F18	3.4691	1.23	2.82	3.4691	1.75	1.98
F19	3.4034	1.03	3.3	3.4034	1.29	2.64
F20	2.7528	2.59	1.06	2.7528	3.24	0.85
F21	3.2292	0.45	7.18	3.2292	0.56	5.77
F22	3.6531	0.34	10.74	3.6531	0.42	8.7
F23	3.3744	0.5	6.75	3.3744	0.67	5.04
F24	3.1464	0.13	24.2	3.1464	0.18	17.48
F25	3.3916	0.7	4.85	3.3916	0.84	4.04
F26	3.3274	0.56	5.94	3.3274	0.7	4.75
F27	2.7816	0.22	12.64	2.7816	0.28	9.93
F28	3.717	0.91	4.08	3.717	1.14	3.26
F29	3.5105	0.45	7.8	3.5105	0.56	6.27
F30	3.3638	0.29	11.6	3.3638	0.37	9.09
F31	2.76	0.18	15.33	2.76	0.22	12.55
F32	2.7972	0.13	21.52	2.7972	0.17	16.45
F33	3.1024	2.8	1.11	3.1024	3.51	0.88
DL	3.11	33.27	0.09	3.11	31.27	0.1
FOH	3.04	8.7	0.35	3.04	8.45	0.36
M&AC	2.69	4.35	0.62	2.69	5.45	0.49
Total	116.3683	100	1.16	116.3683	100	1.16

Source: Prepared by the researcher based on the previous two tables.

It is clear from the above table that there is a noticeable improvement in the value index for the functions of the men's suit product after the integration of the target cost and quality function deployment techniques for the year 2022, for example the job (F1) The value index before the integration of the two technologies was (0.15) and became after the integration of the two technologies (0.18), and the function (F6) The value index before the integration of the two technologies was (2.12) and became after the integration of the two technologies (3.17), andthe function (F13) was the value index before the integration of the two technologies (11.14) and became after the integration of the two technologies (13), and the function (F14) was the value index before the integration of the two technologies (11.72) and became after the integration of the two technologies (13.19), andFunction (F15) was the value index before the integration of the two technologies (16.17) and became after the integration of the two technologies (19.02), andfunction (F17) was the value index before the integration of the two technologies (90.83) and became after the integration of the two technologies (121.11), andfunction (F32) was the value index before the integration of the two technologies (21.52) and became after the integration of the two technologies (16.45). Thus, it can be said that the application of the dissemination of the quality function can help the men's clothing factory in Najaf to improve the value of the men's suit product by improving the functional entitlement of this product and reducing its cost.

Fourth Theme: Conclusions and Recommendations

First: Conclusions:

The research reached the following conclusions:

1. One of the customer-oriented strategic cost management techniques is the quality function deployment technique, which is used to translate customer requirements into engineering and technical specifications. This is considered both during the design and research and development stages of the process.
2. Quality function deployment technology aims to control costs, reduce costs, increase profits, improve quality, increase customer loyalty, increase market share, and know and meet customer needs. It also aims to simplify the design and remanufacturing process, encourage innovation and creativity, and facilitate effective communication between all parties.
3. Product design, process planning, quality process control, and product planning are the four stages that make up the application of the technology for deploying the quality function. When using this technology, you must concentrate on spreading product quality, which includes the necessary activities to transform the quality required by the customer into special features consistent with his requirements and expectations.
4. From (1100484802) dinars for the total production and (70184) dinars for one suit, the cost of engineering characteristics after improvement became (817712000) dinars for the entire production and (52150) dinars for one suit. This means that the amount of cost reduction during the research year will be (282772802) dinars for the total production and (18034) dinars for one suit.
5. The men's suit product cost amounted to (71230) dinars for a single suit and (1116886400) dinars for the entire production after this technology was applied, whereas it was previously worth (89264) dinars for a single suit and (1399659202) dinars for the total production. This indicates that the application of this technology resulted in a cost reduction of (18034) dinars per suit and (282772802) dinars for the total production.

Second: Recommendations:

The research recommends the following:

1. The need for the research sample factory to organize its accounts at the level of each production line, provided that these accounts are standardized monthly and in a way that helps determine the costs of each product accurately, as well as providing management with financial and costing information in a timely manner and enabling it to make rational decisions.
2. Developing cost systems in a manner that suits the requirements of the modern manufacturing environment and benefiting from costing and administrative techniques, the most important of which are the target cost technique and the technology of deploying the quality function in order to help improve the value of the product and achieve competitive advantage.
3. The need for the research sample factory to exploit the idle energy in the laboratory for the impact of this in reducing the cost of the men's suit as well as to cover the market need of this product if the work is done according to the requirements of the customer.
4. The research sample factory to form a team of engineers related to the production of the men's suit adopts the management of the application of strategic methods of cost management with the adoption of constructive thinking methodology as an attempt to search for creative areas to improve the value of the suit for its reliance on the reference comparison in modifying the specifications of the suit in accordance with international specifications.

5. Activating the role of marketing activity and research and development by conducting studies and research that would work to achieve the added value of the customer by producing a product whose functions meet the customer's requirements and of high quality.

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