

Integration between Green Target Cost and Budgeting Techniques Based On Four-Stage Time-Oriented Activity and Its Reflection in Achieving Competitive Advantage

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Abstract: The aim of this research is to apply the techniques of Green Target Costing and Activity-Based Budgeting as modern cost management techniques in the Men's Clothing Factory in Najaf Al-Ashraf, which is affiliated with the General Company for Textile Industries in Babil Province. This is done through an integrated approach that aims to achieve competitive advantage. To achieve the research objective, the researcher relied on data obtained through field observation, personal interviews with officials and employees in the factory, as well as data extracted from the factory records when applying the aforementioned techniques. The research has reached a set of conclusions, the most prominent of which is that the integration between Green Target Costing and Activity-Based Budgeting is capable of helping the factory achieve positive results, including cost reduction, increased quality level, reduced response time, increased flexibility, and ultimately achieving competitive advantage.

Keywords: Budgeting based on time-oriented activity, Competitive advantage, Cost management, Four-stage, green target cost, Integration, Zero defects, Zero emissions.

I. INTRODUCTION

The problem of this research is crystallized by the question: Does integration between green target costing and budgeting techniques based on four-stage time-directed activity help overcome the problems faced by traditional cost and management accounting systems and approaches, and does this integration help in calculating and determining the gap between the target cost and the current cost at its value? Planned correctly and appropriately, and does this integration lead to achieving a competitive advantage for the factory sample of the research? This research seeks to clarify the role played by the budgeting technique based on the four-stage time-directed activity in providing integrated information about the costs that are allocated. Hence, the importance of the research is evident in the need The economic units in general and the research sample laboratory in particular are based on modern accounting techniques that are consistent with the rapid developments, continuous changes and intense competition that the business environment is witnessing. Perhaps the most prominent of these modern accounting techniques are the techniques of target costing and budgeting based on four-stage time-oriented activity and the importance of their integration. A role in achieving competitive advantage with an attempt to give this complementary role between the two techniques above an experimental character by applying it in one of the factories of the General Company for Textile Industries in Hilla, which is the Najaf men's clothing factory, while this research assumes that the integration between the two techniques of target costing and budgeting on the basis of time-oriented activity is fourfold. The stages would help the research sample factory achieve competitive advantage by reducing cost, improving quality, reducing response time, and increasing flexibility. The research adopted data for the year (2022) for the factories of the General Company for Textile Industries, specifically the men's clothing factory in Najaf.

II. THE KNOWLEDGE FOUNDATIONS OF THE GREEN TARGET COST TECHNIQUE

1. Green Target Cost Technology Concept

Cohen, & Levinthal, 1990:128-136 a green target cost is a methodology for balancing the achievement of financial and environmental goals by identifying and achieving targeted costs and delivering products and services with lower environmental impact. This methodology is based on setting a financial cost target with a focus on improving efficiency and balancing environmental impact. Green target cost encourages the delivery of high-quality products and services in ways that reduce consumption Resources and improve impact Environmental processes and products where a specific and fixed cost target is set for the product or service, and strategies to improve efficiency and reduce waste and consumption are applied in order to achieve this goal. At the same time, work is being done to reduce environmental impact by reducing emissions, reducing the consumption of natural resources, and increasing recycling and reuse opportunities.

Kaplan & Anderson (2007:131-138) points out that a green target is a strategy to balance the achievement of financial and environmental goals by setting a specific financial cost goal for a product or service with a focus on improving efficiency and delivering products and services with less environmental impact. This strategy seeks to strike a balance between profitability and environmental sustainability, by setting a cost target, applying improvements, and reducing waste to achieve this goal.

2. Green Target Cost Principles:

Green target cost management is based on several principles: (Jie, 2010: 80), (Ning, 2015: 9)

- a. Meet and satisfy customers' green requirements: Business units should pay attention to identifying and meeting the green needs of customers and other stakeholders, including current, potential and future needs to ensure that all stakeholders, including business unit owners, employees, suppliers, partners, community, and the environment benefit.
- b. Lifelong Quality (Green Quality): Management strives to achieve a complete system based on the coordinated development of the economic unit, society, resources, and environment, with a focus on achieving quality throughout the product life cycle.
- c. Caring for the environment: Achieving satisfaction and satisfying consumers while taking into account the environment leads to an improvement in the green benefits of the economic unit, customers get satisfaction and as a result, public goods, including the environment to a large extent, are realized.
- d. Achieving environmental satisfaction: Consumer satisfaction, taking into account the improvement of the environment, the green benefits of economic unity, is that customers obtain green satisfaction and at the same time led to improved public goods for society as a whole.
- e. Achieving superiority: The environmental crisis is getting worse, and in light of the relationship between supply and demand, increasing demand cannot be seen as a profitable process, unless there is harmony in the relationship between humans and nature by protecting the environment and choosing high-quality suppliers, and integrating them together, to achieve overall superiority.
- f. Zero disadvantages and zero emissions: green quality management places great emphasis on the pursuit of zero errors to achieve perfection, as economic units should promote energy savings, low emissions and consequently lower pollution, because they not only affect to reduce cost, but also to improve the promotion of environmental protection "environmental responsibility", preventing possible negative consequences and consequences of violations in the environment.

3. The concept of budgeting based on four-stage time-oriented activity

Kaplan & Anderson (2004: 15-16) defined budgeting based on four-stage time-oriented activity is an approach used to identify and allocate resources and achieve the desired balance between financial objectives and the operational objectives of an economic unit. This budget is based on the determination of short periods of time called quatrains, where goals and resources are re-evaluated according to current developments and changes in the economic environment where the budget goal is based on four-stage time-oriented activity to analyze and estimate costs The various activities in the economic unit, based on the expected directions for each activity and this is done by creating time equations that link the factors affecting the costs of activities, such as resource consumption, labor, and technology. Blocher, et al, 2019:380-382 defines it as a

method of budgeting along with cost based on time-oriented activity where available resources are effectively distributed to meet production and service needs where the costs of time-directed activity are determined based on the actual time used to carry out the various activities, which helps in improving resource utilization and better estimating costs. This technique aims to balance the provision of the necessary resources and meet the actual needs of the company.

The researcher believes that the appropriate definition of budgeting based on four-stage time-oriented activity is that it is a technique that aims to plan and coordinate resources and activities and determine their time based on careful analysis and determine the optimal time directives, as this technology helps in implementing projects with high efficiency and achieving the desired results on time.

4. The concept of competitive advantage:

Several definitions of competitive advantage have been given. According to (Heizer & Render, 2008:36), competitive advantage is described as having a privilege that distinguishes an economic unit from other competitors. According to David & David (2017:36), it is the best performance in activities compared to competing economic units. Kuo et al., 2017:356 indicates that competitive advantage is manifested in the implementation of strategies that cannot be applied by competitors, resulting in lower cost, increased market opportunities and reduced competition. According to (Nicholas, 2018:2), competitive advantage is manifested in the ability of the economic unit to manufacture and deliver products that meet customer needs in quick response, quality and low prices, as well as to deal with changes effectively. Finally, according to (Ayesh, 2022:57), competitive advantage is the situation that an economic unit reaches when it has a set of resources, characteristics and specifications, and when it combines it with its own capabilities and skills, excellence and superiority of its products is achieved compared to competitors.

a. Dimensions of competitive advantage:

As for the exclusion of competitive advantage, he points out (Al-Khalifa, 2017: 76:75) (Al-Bakri, 2012: 110:4) (Chiou et al. Celtekligil & Adiguzel 2014:10 (2011:833) (Hraiga,2023:76) It includes:

1. **Cost:** Cost is defined as the sacrifice that leads to an expected benefit, and it is one of the most important features of competitiveness and the first priority that must be taken into account to maintain a competitive advantage in the market. This is done by reducing cost factors such as materials, wages and other expenses, as well as reducing inventory, developing the skills of employees, improving quality control, tight control and effective organization within the factory. This results in products being offered at lower prices compared to competitors, without affecting product quality."

2. **Quality:** is defined as "the ability of products or services to meet the desires and requirements of customers" or is "the suitability of the product to the desires of customers and the extent to which it performs the function for which it was made effectively and efficiently", and the product must be characterized by high quality, conformity to specifications, durability, good performance, beautiful shape and design. Quality is one of the main pillars to achieve competitive advantage and is a success factor for economic units, and quality is of great importance to customers and is an important factor to form a good reputation in the market and a key to increasing sales and achieving profits.

3. **Time:** is of great importance at the present time, reaching the customer faster than competitors, adhering to delivery dates and speed of development is crucial to enhance competitive advantage because it is a priority of competition, and the priority of time can be achieved in multiple forms, including:

- Speed of delivery: It is measured by the time it takes from receiving the customer's order until it is fulfilled.
- Development speed: It is measured by the time it takes from the generation of the idea until the final design of the product and its introduction to the market.
- On-time delivery: It means the delivery of the product to the customer at the agreed time.
- Reduce manufacturing cycle time: The period from the purchase of inputs to the production of the final product.

4. **flexibility:** It represents the ability to generate diverse ideas that are often unexpected ideas, and also means the adoption of undefined patterns so that the ability to change and respond quickly to this change according to the needs of customers, and flexibility is seen as the ability to change operations from one method to another as well as changing the method or time of performance of operations, and forms of flexibility Diversification and flexibility of size, as the focus is on the diversity of ideas for the first form, while the second focuses on the interest in providing different sizes of products.

5. **Innovation:** is also called creativity, and often results from the innovation process new, valuable and innovative products, and innovation occurs as a result of responding to changes in the tastes and needs of customers, and innovation or creativity is produced either through the development of modern technology or through continuous improvement and permanent reduction in costs or when meeting the requirements of fast delivery and timely delivery of products Specified and fulfilled the wishes of customers. Innovation can be categorized into product innovation and process innovation

b. The role of green target cost technology in achieving competitive advantage

The contemporary business environment has witnessed rapid developments, which has made traditional cost systems incapable of providing useful information that would serve the economic unit under the conditions of this environment, because these systems were developed and adopted under a previous business environment that is different from today's business environment. Which prompted economic units to adopt modern technologies that keep pace with developments in the business environment in order to achieve competitive advantage, including the green target costing technique (Loosvelt, 2003: 45), and (Warren, et. al., 2009: 380-381) believes that The role of green target costing technology in achieving competitive advantage is represented in multiple aspects, the most prominent of which are planning, design, production and operation phase. In the production planning stage, the role of technology is to choose the most appropriate means necessary for production, the most appropriate conditions for it, and to complete production in the shortest time. In the product design stage, the role of green target costing technology becomes clear through simplifying the product design so that it is produced at the lowest costs. As for the production stage, the role of green target costing technology in achieving competitive advantage is evident through the use of raw materials with reasonable costs and high quality and the use of skilled labor that can complete tasks according to reduced costs, less time and with high flexibility, and reducing cases of damage to the minimum possible through Spreading the culture of minimizing costs and reducing them to the lowest levels without compromising on the quality element.

Thus, the researcher believes that the main purpose of applying the green target cost technology by the economic unit is to achieve the competitive advantage of the economic unit's products by working to reduce cost, reduce time, improve quality, and then achieve customer satisfaction by meeting his requirements and desires.

c. The role of balancing technology based on four-stage time-oriented activity in achieving competitive advantage

(Kaplan & Norton, 2008: 127) indicates that the method of budgeting on the basis of four-stage time-oriented activity can provide economic units with future estimates of the contents of the budget, most notably cost and profitability that would help in the success of the performance evaluation process by comparing the actual performance with the plan according to the budget in a way that ensures the search and analysis of the causes that lead to the emergence of deviations between the two performances, especially inappropriate ones, whether these reasons are due to cost elements or Revenue or others, but (Bruggeman & Waeytens, 2005: 35) point out that budgeting on the basis of four-stage time-oriented activity focuses on cost management by reducing it by focusing on production inputs and in proportion to its costs, which should be under the umbrella of revenue and not exceed it, while with regard to the role of budgeting based on four-stage time-oriented activity in time management, (Saban & Lark, 2009: 155) that this role lies in the fact that this technology serves to determine the time guidelines for the performance of each product-related activity.

The researcher believes that the development of a budget for the economic unit on the basis of its activities, which are directed by the time necessary for those activities requires the identification of those activities and their events and time guidelines for those events, provided that all this is done according to the practical energy exploited and the exclusion of the unused energy part, and as a result, this will help in reducing costs and this in turn is reflected in the profitability of the economic unit and its achievement of competitive advantage.

d. The approach of integration between the techniques of green target cost and budgeting based on four-stage time-oriented activity

The integration approach between the green target costing and budgeting techniques based on the four-stage time-oriented activity depends on benefiting from a certain technology to use it to implement another technology. As for the target costing technique, it aims to manage the cost by reducing it, while ensuring the production of products that meet customer requirements in terms of price and functionality. While maintaining the quality of the products, the success of applying this technology requires the availability of appropriate information that helps in achieving the goal of rationalization and cost

management. This information is provided by applying the budgeting technique based on the four-stage time-directed activity, which in turn aims to allocate the cost on the basis of what is done. Consumption or exploitation of resources in an optimal manner and in the shortest time, by specifying the time periods related to the activities related to the product, as well as determining the cost of those activities according to the expected time vectors for each activity, which are determined by time equations. So, it can be said that the clear relationship between the two aforementioned techniques reflects the essence of integration between them along with the need for this type of integration, and that the main steps for applying the integration approach between the green target costing and budgeting techniques based on the four-stage time-directed activity are reflected in the figure.

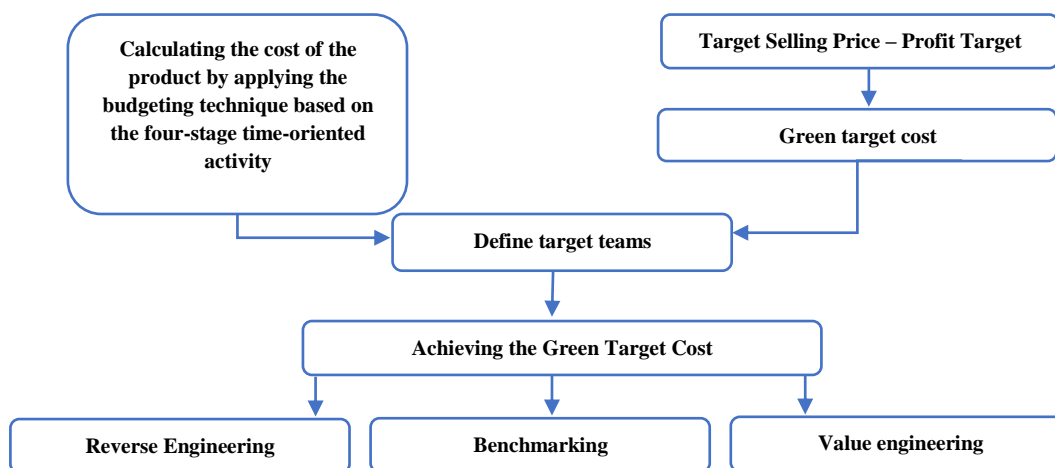


Figure (1) Steps of the integration approach between the two technologies (GTC and TD-ABB4)

Source: Researcher Preparation

Accordingly, the researcher sees the role played by the techniques of target cost and budgeting on the basis of four-stage time-oriented activity in achieving competitive advantage, but this role may be in the form of a theoretical assumption that is difficult to predict its results without doing the applied study and this will be addressed in the next chapter

5. The Practical Side of Research

a. An introductory overview of the men's clothing factory in Najaf

The men's clothing factory in Najaf is considered one of the formations of the Ministry of Industry and Minerals if it was established during 1988, but in 2005 it was listed within the State Company for Textile Industries of Babylon Governorate.

b. The cost system applied in the research sample laboratory

The main pillar of any production company depends mainly on the nature of the cost system applied within it, as most of the decisions taken by senior management depend on it mainly, such as decisions related to pricing, production and other important administrative decisions, through the costing information produced by this system, and through the study and analysis of the reality of the cost system adopted by the research sample laboratory by the researcher, the researcher found that the men's clothing laboratory in Najaf depends on the accounting system Unified in the process and classification of cost elements and the preparation of its financial statements

From what was presented previously, the factory sample of the research does not adopt any modern administrative and cost system in the process of determining and calculating the cost of the factory as a whole, as it relies mainly on the unified accounting system, according to the instructions of the economic units of the public sector, and that is what made the system for costs It is unable to keep up with the fluctuations and developments that have occurred in the contemporary business environment. In addition to that, it is relying on a single basis in the process of distributing the costs of the service departments to the production centers, as was mentioned previously, as the above laboratory is supposed to strive effectively and seriously to adopt and adopt technologies. Modern cost management, represented by green target costing technology, due to the ability of this technology to face the fluctuations and changes faced by the

contemporary business environment and fluctuating prices, to control and reduce costs, and to maintain the competitive position of the products of this factory, as required by the markets, and to maintain its sustainability, raise its market share, and compete with the ability to compete. Higher than before, which is reflected in reducing the cost of products and enhancing the ability of the research laboratory to achieve competitive advantage.

c. Reasons for choosing the research sample laboratory

The men's clothing factory was chosen for a number of reasons, perhaps the most prominent of which are:

1. The distinguished progress performed by this laboratory in the processes of design, halls and models by relying on (Kerber electronic system), which made it occupy a large part of the parent company.
2. The international quality certificate owned by the laboratory, which is a clear indication of the quality of its products, made it distinguished to a large extent unlike other laboratories within the company.

Despite the above advantages, as the factory sales of the men's suit product declined significantly and terrifyingly, as the actual production decreased significantly from other production capacity levels, represented by the design, availability and planned production of these products, as the production of this product fluctuated and irregularized properly, as well as its dependence on the production process according to customer requests, due to modern globalization that knocked on the doors of the country, the country has become open to most countries of the world, as The entry of foreign products at competitive prices contributed significantly to the deterioration of the performance and work of the factory, and this matter has included all the factories of the company and most of the industrial economic units within the country, while Table (1) will show the production capacity of the men's suit product for the four years (2019, 2020, 2021, 2022) as follows:

Table (1): Production capacities of men's suit product for the years (2019, 2020, 2021, 2022)

year	Design Power	Available Energy	Planned production	Actual production
2019	12042	92120	13248	9230
2020	12042	92120	15000	3000
2021	12042	92120	15000	7250
2022	12042	92120	15000	6000

Source: Prepared by the researcher based on the data of the Planning Division.

The table above shows the production capacity, which is represented by (design capacity, available capacity, planned production, and actual production) for the men's suit product, where we clearly notice how the actual production volume of this product has decreased, which is large and frightening compared to the different energy levels, as the reason behind this is attributed to Decline is changes in the competitive business environment. Focusing on this product alone and applying the research topic to it is due to the utmost importance of this product to the factory in general and customers in particular, and to its high selling price compared to the imported competitive products offered in the local markets. In addition, the men's suit producer has A number of basic components inherently reflect the work of the departments related to its production, as well as the practical activities performed by these departments from the beginning of the production process all the way to the complete final product. The latter is what enhances the possibility of applying research techniques, represented by the green target costing technique, in a way that may contribute to the time management process. And cost reduction is a basis for achieving competitive advantage in light of the current competitive conditions by producing products that may meet customers' requirements in terms of sustainability, competitive prices, quality and time for production. Table (2) will show the cost of the men's suit product with the exchange rates for raw materials for the year 2022 as follows:

Table (2): Cost and sale price of men's suit with exchange rates of materials 2022

N	Material Name	Unit of measurement	Exchange Rate (Quantity)	Price per unit of measure (in dinars)	Cost (in dinars)
1	Cloth	Meter	3.76	7650	28764
2	<u>Supplies</u>				
2-1	Thelining (W150)	Meter	1.7	1750	2975
2-2	Adhesive Imam	Meter	0.9	3150	2835
2-3	Qanuja	Meter	0.51	2500	1275
2-4	Textile adhesive padding	Meter	0.3	1560	468

2-5	Pocket lining	Meter	1	1500	1500
2-6	muslin	Meter	0.0133	3000	40
2-7	Prem	Meter	0.08	3000	240
2-8	Non-stick non-stick filling	Meter	0.15	1635	245
2-9	Collar cuff	Meter	0.10	3500	350
2-10	Buttons (sleeve) size 22	number	6	100	600
2-11	Buttons (sleeve) size 32	number	4	200	800
2-12	Transparent threads	Meter	3	10	30
2-13	Ordinary threads	Meter	360	0.660	238
2-14	Hyper Threads	Meter	330	0.500	165
2-15	silk threads	Meter	50	0.600	30
2-16	Threads of the house of dumb (buttons)	Meter	60	0.600	36
2-17	Apauettes	Husband	1	1000	1000
2-18	The tape is around the jacket	Meter	1.5	350	525
2-19	Theready-made moon	Meter	1.32	1500	1980
2-20	Clouds	number	1	250	250
2-21	Relationship (Ginkal)	number	1	150	150
2-22	Thermal paper	Meter	0.5	720	360
2-23	Marking paper	Meter	0.5	400	200
2-24	Mito Bar	number	25	10	250
2-25	Mark thesize and factory	number	2	150	300
2-26	Significance Card (Care)	number	1	100	100
2-27	Qanuja adhesive	Meter	0.35	1600	560
2-28	Theadhesive tape for the beam	Meter	1.5	250	375
2-29	Radhana pit tape	Meter	1.5	150	225
2-30	Relationship	number	1	250	250
2-31	Nylon bag	number	1	100	100
2-32	Suit bag	number	1	2400	2400
Total direct material cost					49616
Other variable costs					15732
Total variable cost					65348
Direct Work Wages					102204
Disappearing					2009
Other fixed cost					1000
Total fixed cost					105213
Manufacture cost					170561
Marketing and administrative cost (10%)					17056.1
Total cost					187617.1
Profit margin (10%)					18761.71
Men's suit selling price					206379

Through the above table, it was found that there is a system of costs that is applied within the research sample laboratory, where this system has a number of elements of the cost system, but no system is free of defects, as the researcher has identified some observations, which must be taken into account by the authorities responsible for managing this system from senior management and those in charge of implementing this system in order to achieve the rise in products again to the top Competitive positions and obtaining a larger market share by selling the largest percentage of products and staying in the markets for as long as possible

6. The application of the balancing technique on the basis of the four-stage time-oriented activity in the research sample laboratory

a) Estimating the quantity of sales and production: for the coming period At this stage, the volume of sales and production expected to be achieved in the coming period, i.e. in 2023, is estimated. The results of the interviews conducted by the researcher with officials in the laboratory, which represent the research sample from (planning, follow-up and sales departments) in addition to his examination of the market research conducted inside the laboratory, show that the expected production in the coming period, Thanks to the adoption of cutting-edge technologies, including green target cost and four-

stage time-oriented activity budgeting, around 15,000 units will be a men's suit product. This planned quantity represents the goal that the laboratory seeks to achieve, as shown in Table 1. The application of these two techniques will contribute to managing the production costs of the men's suit product by reducing them. This, in turn, will reflect positively on the selling price, leading to an increase in sales volume. This improvement in performance will make the lab occupy a strong competitive position in the market for similar men's suits, which pose a challenge to the lab's products that represent the research sample.

b) Identify the different resource groups sections and divisions: The various resource groups for all departments and divisions related to the production of the scheme for men's suits in the laboratory are represented in the research sample, and were addressed in the first section of this chapter.

c) Forecast the total costs of different resource groups: The analysis of the total cost of each of the different resource groups associated with the production of the men's suit product in the laboratory, where the cost analysis is to identify the direct and indirect elements that contribute to the performance of the various activities that take place in each group and the direct cost is represented by the salaries of workers in those groups. The cost is not Direct, includes all elements of industrial cost that are reflected in the cost system applied in the laboratory, except for direct materials and direct work. These points are illustrated in tables (5) and (6).

d) Forecast the costs of the departments allocated to sub-posts: At this stage, the process of allocating the planned costs of each department to job groups is carried out according to the following steps:

a. Identify the functions of each department The resource groups at this stage represent the functions performed by all the individuals contributing to the implementation of each function, which fall within the scope of each department of the laboratory, as shown in Table (3). It should be noted that the functions of the laboratory departments were determined based on the field experience of the researcher and on the interviews, he conducted with engineers and technicians who work in the laboratory departments.

Table (3): Functions for each section of the laboratory Research sample

section	Function
Production	Chest suturing and ganuga ligation
	Preparation of radan
	Lining preparation
	Preparing the back and the yakh for the jacket
	The process of assembling the parts of the jacket and the process of tying the collar with the body
	Final stitching with ribbing process
	Final Countryside & Cleaning
	The process of sewing the chest of the pants
	Sewing the back of the pants
	Tie the sides of the pants
	The process of tying the sleeve of the pants
	Sewing seat pants
	Final relief, reinforcement, cleaning and delivery completion
Technical Affairs	Planning
	Design
	Technology & Programming
	Preparations
	Quality Assurance
Quality control	Guiding and educating employees to ensure product quality
transportation	The process of transferring production inputs to production departments and transferring complete production to warehouses Full production
Stores	Raw material store (primary)
	Total Production Warehouse
Maintenance	Electrical Maintenance
	Mechanical Maintenance
Management	Administration
	Legal Affairs

Source: Preparation of the researcher based on the data of the laboratory of the research sample

Where the above table shows the functions of each section of the laboratory sample research in order to divide the costs of each job for the group of resources for each of the departments and divisions.

b. Determine the practical capacity of job: resource groups This step is responsible for determining planned costs related to resource groups and production departments in the menswear factory. Requires analysis of direct and indirect cost elements. Direct costs include workers' wages, while indirect costs include all elements of industrial costs. Except for direct materials and direct wages.

c. Determine the planned cost of the unit of time During this step: of each group of resource groups for each section of the laboratory research sample for subsequent periods, where scientific research that specialized in this aspect indicates that practical energy has been invested by only 80% of the theoretical energy drawn, as the laboratory sample research did not reach the aforementioned percentage, as this percentage is considered an aspect of the aspects Which must be applied to change the situation from what it is to what is better, as this may be reflected in the management and reduction of the time scheduled for the production process if the technique of time management is applied through the adoption of practical energy without theory. According to the opinions of specialists within the laboratory of the research sample of those responsible for the production process and technicians, it is possible to reach the above percentage of practical capacity if modern techniques for strategic cost management have been done, most notably what this research dealt with from the techniques mentioned in the theoretical aspect.

d. Identifying and grouping jobs and calculating the time of performance of their events: Through the researcher's field visit to the research sample laboratory and conducting personal interviews with officials and specialists, the activities of producing the men's suit product were determined and the time required to perform each activity was determined. Based on this information, the operational costs of each division can be calculated, such as Division of sewing the chest of the jacket and tying the Qanuja, by the following equation

e. Planned time for the division of sewing the jacket chest and tying the ganuga (number of minutes needed) = 33.58 [1] (receipt and transportation of raw materials and sewing) + 1.8 (receipt of work order, request of materials) + 0.9 (planning, design, evaluation of the template and preparation, work order) + 0.5 (document signature) + 1.25 (inspection of work performed) + 1.2 (maintenance) + 1)Transfer of the work done to the jacket assembly division)

(In the same way, time equations are prepared for the rest of the divisions)

e) Multiply the planned unit cost of time for each resource group (department) by the time of the job event: In this step, the planned operating cost for each division is calculated and this process is done by multiplying the cost of the planned time needed (in minutes) for each group of resources that have been previously determined by the time calculation equations The planned time of the event of each activity was previously calculated under the application of time equations as well, in order to find the planned total cost of the required resources, which may represent the costs of operation (direct work + T.S.G.M.) for each of the divisions responsible for producing the men's suit product. To indicate the method of calculation of the operating cost, Table (4) will show the model for calculating the planned operational cost for the division for sewing the jacket chest and tying the ganuja as follows:

Table (4): Planned Operational Costs of the Breast, Jacket and Tie Division for 2023

Activity 1	Activity event time, (min) 2	cost per unit time, (IQD/min) 3	Operating cost 4 3×2
Receipt and transportation of raw materials + sewing	33.58 ^[2]	179.6834	6033.7686
Receiving the work order and ordering materials	1.8	287.9086	518.23548
Planning, designing and evaluating the template + preparation, work order	0.9	78.9259	71.03331
Document Signature	0.5	75.6185	37.80925
Examination of the work done	1.25	71.1981	88.997625
Maintenance	1.2	73.4522	88.14264
Conversion of work done	1	78.3613	78.3613
Total			6916.3482

Source: Preparation of the researcher based on the data of the laboratory of the research sample

Through the above table and in the same way, we can calculate the planned operational costs for the rest of the other divisions related to the production of the men's suit product, as the process of calculating them was as follows:

- a. Planned operational costs of the Preparation and Sewing Division = 4908.8157 IQD.
- b. Planned operational costs of the lining preparation division = 4193.5635 IQD.
- c. Planned operational costs of the jacket back and collar preparation division = 6304.1554 IQD.
- d. Planned operational costs of the jacket assembly division and tying the collar with the hull = 7532.9720 dinars.
- e. Planned operational costs of the Hull Tying Division = 5099.2134 IQD.
- f. Planned operational costs of the final sewing, cleaning, cleaning and packing division of the jacket = 9216.1624 dinars.
- g. Planned operational costs of the Trouser Chest Sewing Division = 7570.4277 IQD.
- h. Planned operational costs of the Trouser Back Sewing Division = 6336.1580 IQD.
- i. Planned operational costs of the Trouser Side Tying Division = 3671.7667 IQD.
- j. Planned operational costs of the trouser tying division = 4920.9818 IQD.
- k. Planned operational costs of the seat sewing division = 2897.3643 IQD.
- l. Planned operational costs of the Strengthening, Cleaning and Packing Division of the pants = 2694.4994 IQD.

f) Calculating the planned cost of the sections related to the product: In this step, the planned cost of the time unit for each of the departments responsible for the production of the men's suit is determined, as this is done by dividing the total planned costs (direct and indirect), which corresponds to the performance of the functions that may be performed by the individuals working on the production of the men's suit product by the planned energy. Necessary (working hours)

7. Determining the planned cost rate for the time unit for the production centers related to the production of the men's suit: Table (4) shows the results of the process of estimating the planned cost rate for the unit time (cost per minute of this board) for each of the departments and divisions responsible for the production process of the men's suit, which falls within the bear of the production centers within the factory in kind.

a) Planned direct cost to Division Officer or Assigned Worker The calculation of the direct cost of the division official or the worker in charge of the activity is done through the following equation

(Daily working hours × Number of monthly working days × Hour × Number of months of the year × Percentage of annual practical energy used from theoretical energy)

$$= (7 \times 22 \times 60 \times 12 \times 80\%)$$

Annual working capacity (working hours) = 88704 minutes.

b) **Calculation of the cost of time (per minute):** The following is an explanation of the process of calculating the cost of the unit time (one minute) planned for the division of sewing the chest, jacket and strapping of the ganuga:

• **Planned one-minute cost for Division Officer**

= Planned annual direct costs of the Division Officer ÷ annual operational capacity

= 1,742,000 IQD ÷ 88704 minutes

= 196.9697 IQD /min.

• **Planned cost per minute per worker**

=Planned annual direct costs of the worker ÷ annual process capacity

= 7872000 IQD ÷ 88704 minutes

= 88.7446 IQD /min.

- Calculate planned indirect costs per minute

= Planned annual indirect costs ÷ annual operation capacity

= 290399051.8 IQD ÷ 3193344 minutes

= 90.9389 IQD /min.

Table (5): Planned cost per minute for production centers related to the production of men's suits for the year 2023

The divisions responsible for the production of the men's suit product	Annual direct cost To the Division Officer	Cost per minute The One ^[3]	direct cost, Annual Worker	Cost per minute One ^[4]	The cost is not, Annual Directness	Cost per minute The One ^[5]
sewing the chest of the jacket, And connect the Qanuja 36 workers	17472000	196.9697	7872000	88.7446	290399052	90.9389
Preparation and sewing of the sleeve 10 workers	19428000	219.0206	9976800	112.4729	86495932	97.5107
Preparation of the lining 14 workers	22633440	255.1569	7529400	84.8823	86375266	69.5534
preparation of the back and collar, Jacket 10 Factor	18698784	210.7998	9122868	102.8462	116201521	130.9992
Assemble the jacket and fasten, Collar with hull 22 factor	21806544	245.8350	10886688	122.7305	177370599	90.8899
Connecting the sleeve 30 workers	14792040	166.7573	8473428	95.5248	185303052	69.6335
Final sewing, reef, cleaning and packing for jacket 25 workers	10010052	112.8478	7943304	89.5484	201851052	91.0223
Sewing chest Pants 17 worker	11073300	124.8343	8537784	96.2503	134926599	89.4758
Back stitching Pants 29 workers	8485848	95.6648	8337228	93.9893	215677860	83.8425
Connecting sides Pants 13 worker	12330120	139.0030	9674340	109.0632	96277860	83.4910
Connecting beam Pants 10 Worker	10033464	113.1117	8232000	92.8030	33855897	38.1673
Sewing the seat 22 worker	11225460	126.5496	8779920	98.9800	99373074	50.9217
Strengthening, cleaning and packing for worker pants	14834400	167.2348	8454960	95.3166	68641074	38.6911

Source: Preparation of the researcher based on the data of the Costs Division of the research sample laboratory

Table (5) shows that the determination of the planned cost per minute rate has been calculated by using the annual direct costs (for the worker or the division official who performs the function or activity therein) on the annual practical capacity or by dividing the indirect costs also by the annual planned energy as follows:

- Forecasting the costs of jobs allocated to different activities and to perform the functions of each of the sections associated with productivity, service and administrative centers as follows:

Calculation of the practical energy rate for the centers Service and administrative cost:

At this stage, the process of calculating the average cost per minute will be carried out from the practical costs for each of the service and administrative cost centers, as shown in Table (6) as follows:

Table (6): Cost per minute of the planned (practical capacity of the department) for each of the service and administrative cost centers of the laboratory Research sample for the year 2023

Cost Center	Total cost 1	Annual working hours 2	Number of annual minutes 3	Practical Energy 80% 4	Cost per minute 4÷1
Technical Affairs 85 workers	595088816	157080	9424800	7539840	78.9259
Quality control 20 worker	126311090	36960	2217600	1774080	71.1981
transportation 23 worker	159872139	42504	2550240	2040192	78.3613
Stores 24 worker	160983862	44352	2661120	2128896	75.6185
Maintenance 26 worker	169403000	48048	2882880	2306304	73.4522
Lab Management 50 worker	322851725	92400	5544000	4435200	72.7930

Source: Preparation of the researcher based on the data of the Costs Division in the laboratory Research

Calculating the planned cost of the product after calculating the planned operational costs for each of the divisions, responsible for the production process of the men's suit product, through Information obtained from different resource groups This was done through the addition of adding the required cost of the material component used in each division to the operational costs in order to extract the total manufacturing cost as well as adding the marketing and administrative cost for each division in order to obtain the total planned cost of the men's suit product as shown in the table (7)

Table (7): The total planned manufacturing cost of the men's suit product in the laboratory Research sample for the year 2023

The special divisions for the production of the men's suit product	Cost of materials 1	Operating costs 2	Manufacturing cost 2+1=3	Marketing and administrative cost 10% 3×10%=4	Total 3+4
sewing the chest of the jacket, And tie the ganuga	12574.5	6916.3482	19490.8482	1949.0848	21439.933
Preparation and sewing of radan	4933.85	4908.8157	9842.6657	984.2666	10826.9323
Lining preparation	3454.2	4193.5635	7647.7635	764.7763	8412.5398
preparation of the back and collar, Jacket	7001.32	6304.1554	13305.4754	1330.5475	14636.023
Assemble the jacket and fasten, Collar with body	308.05	7532.972	7841.022	784.1022	8625.1242
Linking the radan	350.975	5099.2134	5450.1884	545.0188	5995.2072
Final sewing, respiration, cleaning and packing of the jacket	462.58	9216.1624	9678.7424	967.8742	10646.6167
Sewing chest Pants	6342.8	7570.4277	13913.2277	1391.3228	15304.5504
Back stitching Pants	5964.05	6336.158	12300.208	1230.0208	13530.2288
The secret and the Connecting sides	828.705	3671.7667	4500.4717	450.0472	4950.5189
Connecting beam Pants	4536.92	4920.9818	9457.9018	945.7902	10403.692
Sewing the seat	359.56	2897.3643	3256.9243	325.6924	3582.6168
Strengthening, cleaning and packing for pants	1902.84	2694.4994	4597.3394	459.7339	5057.0734
Total	49020.35	72262.429	121282.78	12128.2779	133411.06

Source: Prepared by the researcher based on tables (5) and (6).

It is clear from the table above that the total planned cost of the men's suit product in the men's clothing factory in Najaf Al-Ashraf has become (133,411.06) dinars, through applying the budgeting technique based on the four-stage time-directed activity, while its cost before applying the above technique was (186,428 dinars, according to the cost system applied within the laboratory sample of the research, as the application of the aforementioned technology played a major role in managing the cost by reducing it by an amount of (53,016.94) dinars, as this reduction in the cost level came primarily as a result of technical ability. Budgeting based on four-stage time-oriented activity manages and controls the time of activities well. It has brought about a reduction in time by relying on practical energy instead of theory. Hence, the role of this technology within the men's clothing factory in Najaf Al-Ashraf is evident in reducing costs, controlling and managing time, which is reflected in increasing market share, enhancing the competitive position of the above factory and achieving competitive advantage. The researcher believes that applying the above technology may fulfill the requirements of the research and achieve the factory's ambition to improve The competitive position has, so the research sample laboratory will need to apply another strategic cost management technique, represented by the green target costing technique, in order to complete the rest of the special integration procedures between both the target costing technique and the budgeting technique on the basis of the four-stage time-oriented activity, and this is what will happen. It will be discussed in the next study.

8. Application of the green target cost technique in the research sample laboratory:

a. Steps to implement the Green Target Cost technique

First: Determining the target selling price The process of determining the target selling price needs to know the prices of competing products and similar to the men's suit product of the research sample laboratory and offered in the local markets, so the researcher conducted some interviews with some workers in the marketing department and sales specialists in the laboratory Research sample as well as the field tour carried out by the researcher on some retailers of this product, it was found that The prices for each of the similar products competing for the men's suit product of the laboratory The research sample is as shown in the following table:

Table (8): Shows the prices for the sale of men's suits similar to the men's suit product for the laboratory Research sample for the year 2022

N	Competitor Product Name	Sale price
1	Men's suit of Turkish origin Zoya	100000
2	Men's suit of Turkish origin FALCO MILANO	75000
3	Men's suit of Turkish origin	65000
4	Men's suit of Chinese origin – first class-	55000
5	Men's suit of Chinese origin – second class-	50000
6	Men's suit of Chinese origin – third class-	35000
7	Men's suit of Italian origin TOMMY TRAP	95000
8	Men's suit Italian origin mohair fabric VRL1	110000
9	Men's suit Italian origin mohair tarket fabric	85000

Source: Prepared by the researcher based on interviews with retailers and specialists from the marketing department in the laboratory Research sample.

Through the researcher's field tours as well as personal interviews with some retailers, it was found that the Turkish product at the level of most types of clothing offered in the markets, especially the men's suit, is completely desired through the high demand of customers for these products and due to their modern separations and attractive models, as well as their high quality and consistent colors, in addition to the prices for their sale are somewhat low compared to what is offered from competing products According to what came from the desire of customers for Turkish products, the target price for the suit product will be according to the average prices for competing Turkish products and their three types, which was estimated at (80,000) dinars, and as Figure (11) shows the levels of demand in the markets for each of the imported products competing for the men's suit product and offered in the local markets .

Second: Determining the target profit in light of the conditions in the modern business environment of intense competition and global openness to local markets, the laboratory has relied on the minimum profit margin ratio, which amounts to (10%) of the target selling price, so the target profit will be calculated through the following equation:

Target profit = target selling price × profit margin percentage

$$= 80,000 \times 10\% = 8000 \text{ IQD}$$

Third: Determining the target costs In this step, the target cost is determined, as it can be calculated by subtracting the target profit from the target selling price, which has been challenged in the first step of this section, as shown in the following equation:

Target cost of men's suit product = Target selling price – target profit

$$= 80,000 - 8,000 = 72000 \text{ IQD}$$

Fourth: Setting the green target price The men's clothing factory draws many goals, perhaps the most prominent of which is to provide a green product to the markets through which it seeks to maximize its sales and increase its market share as well as improve its competitive position and this may be reflected in achieving the competitive advantage of the products of the laboratory research sample, by working to add some characteristics and specifications of production use, which may increase the quality, effectiveness, aesthetic and acceptability This product has current and prospective customers at the present and future time provided that these characteristics are useful and of great relative importance for the men's suit product and not an additional excess cost that increases the total cost of the product, as the type of fabric in the men's bulb product of the laboratory will be changed The research sample is of the current type used to cloth (pure cotton) as this type of fabric is made of 100% cotton, which is a durable type and Very comfortable and its appearance is more attractive, as well as the addition of the third piece of the suit, which is called the middle coat (breastplate) as is applicable in imported products and will form an additional part of the price represented by the price premium, and since the green product may be new to the Iraqi business environment, this matter will generate pressure on the factory by adding a somewhat acceptable price premium to these added characteristics so that the factory maintains the appropriate prices in order to enhance its competitive advantages and maintain In the midst of price competition within the local markets, so the price premium by no more than 10% may be added to the target price, as will be shown by the following equation:

Price premium = 80,000 * 10 %

Price premium (cost of middle coat) = 8000 dinars

Green Target Price = Target Price + Price Premium

$$= 80000 + 8000 = 88000 \text{ IQD}$$

Fifth: Determining the green profit margin After the factory has determined the green selling price as a first step, then comes the stage for determining the green profit and is the second step of the application of the green target cost technology, as the factory has determined a special percentage of profits (5%-15%) Since it aims to provide a green product with a low cost and be long-term sustainable taking into account the environmental effects of this product, and features and advantages of non-production Offered in the markets comparable to all international brands offered in the market, meaning that this green product is not widespread in the local markets as a modern product and that customers may not have sufficient knowledge about it, and thus will be exposed to market risks significantly, so it is necessary to add additional fees to the profit margin as 50% has been determined as a percentage of the normal profit margin as a percentage that is the basis for facing the potential market risks resulting from the introduction of a new product, and this percentage has been determined Based on the opinions of some specialists in the field of marketing within the research sample laboratory, so the green profit margin will be determined through the following equation :

Desired Green Profit Margin Ratio = (Normal Profit Margin× Additional Percentage for the Purpose of Market Risk Treatment) + (Normal Profit Margin)

$$= (10\%*50\%) +(10\%) = 15\%$$

The factory seeks to choose the minimum profit rate in order to entice customers by selling the product at a low price.

Green Profit Margin = Green Target Price * Desired Green Profit Margin Percentage

$$= 88,000 * 15\% = 13200 \text{ IQD}$$

Sixth: Determining the green target cost During these green target cost, the green target cost is determined based on the green target price, which has been determined based on the target price of competing products with the addition of the price premium, and through the following equation, the green target cost will be calculated:

$$= 88000 - 13200 = 74800 \text{ dinars cost per men's suit after introducing the green product on it}$$

Seventh: Determining the current cost In order to determine the target reduction in the cost of the men's suit, it requires determining the **current** product cost, which is compared with the target cost, as evidenced by the steps of applying the budgeting technique on the basis of time-oriented activity (which has been addressed in the second section of this chapter), which represents part of the application procedures The approach of integration between this technology and the target cost, the cost of the men's suit product by applying this technique is (133411.06) dinars.

Eighth: The amount of the target reduction) the gap between the target cost and the current cost of the product) At this stage, the gap between the green target cost and the current cost of the men's suit product of the research sample laboratory is measured, as this will be done through the following equation:

$$= 74800 - 133411.06 = 58611.06 \text{ IQD}$$

As the gap between the current cost of the men's suit product of the men's clothing factory in Najaf and the green target cost has reached (58611.06) dinars, so it is necessary to work hard to close this gap and work to achieve the target reduction of the men's suit product of the above factory in order to achieve the desired goals of the research sample laboratory, which is to reduce the cost of the product and increase quality, as well as to achieve good time management and control, taking into account the sustainability of the product by taking into account environmental conditions, which This may reflect on achieving competitive advantage .

Ninth: Determining the target reduction in the cost of the men's suit product In the previous step, the amount of the target reduction was determined by comparing the green target cost and the current cost, which has been measured according to the budgeting technique on the basis of four-stage time-oriented activity, so the next step will witness the achievement of the target reduction according to one of the three target cost tools, which are reverse engineering, reference comparison and engineering Operations.

Tenth: Achieving the target reduction in cost During this step or stage, the target reduction is achieved and work to close the target gap between all the green target cost and the current cost of the men's suit product of the research sample laboratory, through the use of one of the targeted cost technical tools represented by reverse engineering or what is known as (disassembled analysis), which will be adopted mainly in this section in order to close the gap and achieve The target reduction on the men's suit product of the research sample laboratory, where the next paragraph will include the steps to apply this tool in detail .

b. **Steps to apply deconstructed analysis** (reverse engineering) Before delving into the steps of applying this tool, we must begin to understand the reason for choosing this tool over other tools for the target costing technique, which is the focus directed by this tool, as it directs its focus primarily on the parts and components of the product so that It focuses on each of the components of each product, and this is what may achieve the goal of the green target cost in this research to a greater extent than what other tools may achieve. According to what the researcher conducted in the field tour of the local markets and reviewing the opinions of some retailers, it was found that the men's suit product has The Turkish origin type (FALCO MILANO) is the product most desired in the local markets by customers, so this product was chosen to become the competing product for the men's suit product belonging to the research sample factory, as the change procedures that took place included replacing and adding some basic parts and components. The product may be achieved through information that may be provided by reverse engineering, so what the researcher did, with the help of some engineers specialized in the field of production and workers in the laboratory, is an effective attempt to find out the components of the Turkish men's suit product (the competing product), and the following paragraphs will show the basic steps. To apply reverse engineering:

- i. **Reducing** the cost of direct materials, as this step represents reducing the cost of raw materials by identifying some fundamental differences between both the men's suit product of the research sample laboratory and the competing product (Turkish suit), as the application of reverse engineering on the direct materials element between each of the above producers will determine the differences in the type and nature of the components between the competing product and the laboratory product Research sample as well as the differences in exchange rates for each component of the two products above, as shown in Table (9) as follows:

Table (9): Shows the process of comparison between the exchange rates of direct materials, used in the production of each of the producers' men's suit of the laboratory research sample and the competing product (Turkish suit)

Details	The men's suit of the laboratory research sample		Turkish Rival (Turkish Suit)	
	Used material	Exchange rate	Used material	Exchange rate
Width liner 150	Chinese Tetron fabric width 150 cm	1.7 m	Eco-friendly chambray fabric first class (Turkish) Bahari suitable for the Iraqi atmosphere	1.5 m
Adhesive front	Light gauze width 150 cm with adhesive granules added	0.9 m	Light gauze width 150 cm with adhesive granules added	0.7 m
Qanuja	Thick, coarse fabric made of animal dander	0.5 m	Tweed light fabric	0.40 m
Textile adhesive padding	Coarse thick fabric width 150 cm	0.25 m	Sheer fabric width 0.90 cm	0.15 m
Pocket lining	Soft Tetron fabric or rough coastal fabric strong type	1 meter	Original cotton satin fabric	0.6 m
muslin	Japanese type thick adhesives	0.0133 m	Light adhesives width 7 cm	0.01 m
Prem 50 Offer	Reinforced tape coated with transparent fabric used to strengthen the shoulder	0.0666 m	Sponge tape coated with transparent fabric used to strengthen the shoulder	0.05 m
Non-stick non-textile filling	Insert on the sides of the jacket for strengthening	0.15 m	Using the tail of excess fabrics in the fillings in order to strengthen the sides of the jacket (jacket)	_____
Neck (cuff) collar	Wool fabric width 90 cm	0.1 m	Felt treated cotton fabric (wrinkle resistant and lasts longer) width 150 cm	0.10 m
Buttons size 23	Good quality plastic	6 Items	Nugget metal quality	6 Items
Buttons size 32	Good quality plastic	4 Items	Nugget metal quality	4 Items
Transparent yarn	Soft threads used for trouser cuff	30 m	Soft threads used for trouser cuff	20 m
Plain yarn	Natural cotton, linen or wool yarns	45 m	Synthetic synthetic yarn of nylon or polyester	15 m
Over yarn	Ordinary linen-like yarn used in pants	30 m	Ordinary linen-like yarn used in pants	20 m
Silk threads	Rayon	30 m	_____	_____
Threads of the House of Buttons (Dukm)	Good quality soft to the touch yarn	25 m	Coarse original threads	10 m
Apauettes	Sponge wrapped in transparent fabric	1 pair	Sponge coated with fabric appendages resulting from the production process	1 pair
Tape Dyer Jacket	Double-sided adhesive tape used for reinforcement	1.5 m	Single-sided adhesive tape used for reinforcement	1 meter

Ready beam	Thick paper adhesive wrapped in fabric	1.32 m	White raw fabric in the form of a beam free of filling	1.25 m
clouds	Thick fabric with metal wire for fastening	1 Count	Thick fabric with nylon wire for fastening	1 Count
Relationship (Gencal)	Hanging on the inside collar used for hanging	1	Hanging on the inside collar used for hanging	1 Count
Sensitive thermal paper	Double-sided adhesive of the strong stick type used on the tips of the trousers' feet and the ends of the jacket sleeve prevents the lining from slipping out	0.5 m	Single-sided adhesive of the weak-stick type to give flexibility and freedom to open it and make zoom out and enlargement in measurements	0.25 m
Marking paper	Thick type cardboard paper used as a mold for separation.	0.5 m	Light type cardboard paper	0.25 m
Mito Bar	Paper punctuation tapes	Number 50	Paper punctuation tapes	Number 30
Size mark	A small cloth with the size of the suit, the country of origin, the name and mark of the factory attached	2	A small cloth with the size of the suit, the country of origin, the name and mark of the factory attached	2
Care Mark	Bag with three spare components (fabric, buttons, plain thread)	1 Count	Bag with three spare components (fabric, buttons, plain thread)	1 Count
Qanuja adhesive	Resin for fixing cloth	0.35 m	Resin for fixing cloth	0.25 m
Beam adhesive tape	Thick paper material with added resin	1 meter	Transparent paper material with added resin	0.60 m
Radhana pit tape	A tape that gives the appropriate texture to the pit of the frond and prevents its sagging	1.5 m	A tape that gives the appropriate texture to the pit of the frond and prevents its sagging	1 meter
cloth	Indian First Class Fabric	3.75 m	100% Turkish cotton fabric (First Class)	3.40 m
Relationship	Plastic type hanger	1 Count	Plastic type hanger	1 Count
Nylon bag	Nylon bag for suit packing	1	Nylon bag for suit packing	1 Count
Suit bag	Fabric and long zipper	1 Count	Fabric and long zipper	1 Count

Source: Prepared by the researcher based on, on the data of the engineers working in the laboratory research sample

From the above table, we can see some of the components used in the production of the men's suit product, which may coincide in each other in terms of type and exchange rate, and some may differ in quality and also exchange rates. In addition, some of them may be present in the local product and not in the competing product, as shown in the following points:

1. As the type of fabric used in the suit product of the men's clothing laboratory of the research sample of the original Indian cloth type and this type is high-cost, compared to the type of fabric that has been used in the competing product (Turkish suit) where a type of cloth (100% cotton) Turkish origin is used and this type is considered one of the good fabrics and suitable for the local atmosphere that surrounds this country and desired by Customers, in addition to the low cost as a result of the low purchase price of cloth, as well as the exchange rates of cloth for the competing product, have become lower than the exchange rates of the local product of the laboratory The research sample and its attractive appearance may also be longer for longer periods than the Indian cloth used, which may support the encouragement and motivation of current and prospective customers to use the green product in the local markets, which enhances this Achieving competitive advantages for sample laboratory products.

2. The display lining cloth is also used in the local product of the Chinese Tattron type, unlike what is used in the competing product (Turkish suit), where a fabric was used for lining of the type of chambray fabric of the first class (Turkish), as this

type of fabric is Bahary and suitable for the Iraqi atmosphere and Environmentally friendly as well as the rate of discharge of the amount of material of this type is less than the material used in the local product.

3. Some components may be present in the product of the research sample laboratory and not present in the competing product (Turkish suit) such as synthetic silk threads and non-stick non-textile fillings, and this may also contribute to reducing the cost of the product.

4. There is also a difference in the type of material used for some of the components included in each of the two products, such as thermal paper, as the laboratory product, the research sample, uses double-sided adhesive of the strong type, which is used to connect the ends of the feet of the pants and the ends of the jacket, while the competing product (the Turkish suit) is used in it. One-sided adhesive is of the weak-adhesive type in order to give sufficient flexibility and freedom in the opening in order to enlarge or reduce measurements. Also, the buttons used in the men's suit belonging to the research sample laboratory are of the plastic type, while the buttons used in the competing product are the metallic type, which may add The jacket is more beautiful. As for the ready-made sleeve, thick paper adhesive is used in the local product of the research sample factory, unlike what is found in the competing product, in which white raw fabric is used in the form of a sleeve without padding. There are many simple fundamental differences between each of the two products that we cannot mention. They are shown in Table (9).

5. There is also a difference in the exchange rates of many raw materials in each of the producers, as many of the components involved in the production of the competing product (Turkish suit) are less weight and less in size than in the components of the local suit product of the research sample laboratory, which may be reflected mainly on their prices, which may constitute a weight on the customer. ,

Here is the reference to the process of determining the purchase prices for the purchase of raw materials (raw materials), which is involved in the production process for the production of the men's suit product, which may depend mainly on the politicians followed by the factory, whether imported from some foreign suppliers or purchased from local suppliers, and according to what is agreed upon with them from the processing of the laboratory research sample of those raw materials necessary for the production process of the production of the men's suit product, so the laboratory is a sample If the research reconsiders the processing contracts for raw materials, it is possible to get a greater opportunity to obtain raw materials at lower prices than at the present time, which may show the reason for the different prices of some components of the men's suit product, which may be reflected in reducing the cost of the product, which will be shown in Table (10) as follows::

Table (10): Shows the process of reducing the cost of components, for direct materials, used in the production of the men's suit of the research sample laboratory for the year 2022

Component	Men's suit for the factory			Men's suit of the Turkish competitor			The amount of reduction in Melasma after adjustment
	Price	Exchange rate	Cost	Price	Exchange rate	Cost	
Width liner 150	1750	1.7	2975	600	1.5	900	970
Adhesive front	3150	0.9	2835	3150	0.5	1575	1332
Qanuja	2500	0.51	1275	1350	0.4	540	760
Textile adhesive padding	1560	0.3	468	750	0.15	113	293
Pocket lining	1500	1	1500	750	0.5	375	1150
muslin	3000	0.0133	40	2000	0.01	20	20
Prem	3000	0.08	240	2000	0.05	100	100
Non-stick non-textile filling	1635	0.15	245	_____	_____	_____	245
Collar cuff	3500	0.1	350	1250	0.1	125	125
Buttons size 22	100	6	600	40	6	240	420
Buttons size 32	200	4	800	60	4	240	560

Transparent yarn	10	3	30	5	20	100	200
Ordinary threads	0.660	360	238	0.5	15	8	29
More threads	0.5	330	165	0.3	20	6	6
Silk threads	0.6	50	30	_____	_____	_____	18
Button house threads	0.60	60	36	0.5	10	5	10
Epaulette	1000	1	1000	750	1	750	750
Dyer jacket tape	350	1.5	525	90	1	90	53
The beam is ready	1500	1.32	1980	850	1.25	1063	984
The clouds	250	1	250	125	1	125	125
hanger	150	1	150	50	1	50	50
Sensitive thermal paper	720	0.5	360	500	0.25	125	250
Sign paper	400	0.5	200	500	0.25	125	275
Mito bar	10	25	250	5	30	150	200
Size tag	150	2	300	75	2	150	150
Care mark	100	1	100	100	1	0	150
Kanuja adhesive	1600	0.35	560	1600	0.25	400	160
Camel adhesive tape	250	1.5	375	1024	0.6	614	410
Jordan hole bar	150	1.5	225	100	1	100	125
fabric	7650	3.76	28764	6000	3.40	20400	8364
Relationship	250	1	250	150	1	150	100
plastic bag	100	1	100	50	1	50	50
Suit bag	2400	1	2400	900	1	900	630
Total			49616	Total		29588	20028

Source: Prepared by the researcher based on the information of the Division,

From Table (10), it is clear to us that the amount of reduction that resulted from applying the reverse engineering tool (deconstructed analysis) is (20,028) dinars, which represents (34%) percentage of the amount of the targeted reduction, which was planned in advance by applying the technology. The green target cost is (58611.06), so the matter may require the research sample factory to modify the specifications of the men's suit product belonging to the research sample factory according to the specifications of the competing product (the Turkish suit), in order to benefit from the amount of cost reduction achieved, which It has been shown in the table above.

c. **Reduction in marketing and administrative costs.** After performing the process of reducing the cost of direct materials in the previous step, as a result of modifying the specifications of the men's suit product belonging to the research sample factory according to the specifications of the competing product (the Turkish suit), we also have to carry out another reduction process for each of the following: Marketing and administrative costs in order to reach the desired target reduction, so the administrative and marketing costs will be reduced by taking a percentage of the manufacturing costs, as a percentage of (10%) will be adopted, and thus the amount of reduction resulting from the application of reverse engineering will be from the direct materials component. The marketing costs are in the amount of (37084.1) dinars, which is equivalent to (63%) of the total target reduction amount that was planned in the previous steps. Also, the amount of reduction that was achieved by applying the green target costing and budgeting techniques based on the four-stage time-oriented activity is not at the desired level.

Therefore, it is clear from the researcher's previous presentation, in both its theoretical and applied aspects, the role of employing green target costing and budgeting techniques based on four-stage time-directed activity in achieving competitive advantage, given that these two techniques help improve the quality of products and inputs, reduce production costs, reduce idle energy consumption, and adopt new technology. In addition, it is possible to achieve the

production of green and environmentally friendly products that meet the desires of customers by meeting their requirements and preferences. The results reached are consistent with the research hypothesis which states that integration between green target costing and budgeting techniques based on four-stage time-directed activity would contribute to achieving competitive advantage, as the application of the steps for each of the above two techniques has effectively contributed to Reducing the cost of the men's suit product, reducing time, increasing the level of quality, increasing the level of flexibility, and as a result achieving a competitive advantage for the factory that is the research sample. In addition, the arrangement of the paragraphs for applying the integration approach between each of the two technologies above has effectively resulted in achieving a streamlined results for this research.

III. CONCLUSION

1. Traditional production cost systems are unable to meet the needs and goals of the economic unit. These systems are not able to provide accurate information that contributes to making administrative decisions in light of the current changes and developments in the business environment. These changes include globalization and intensified competition. For this reason, green target costing and budgeting techniques based on four-stage time-oriented activity emerged.
2. The cost information provided by the traditional costing system differs from that provided by the four-stage time-oriented activity-based budgeting approach. This difference is due to the superior accuracy offered by these approaches, particularly with regard to raw material costs and direct labour costs. In doing so, a reduction in costs can be achieved when implementing this approach.
3. Applying green target costing technology with the help of one of its tools enhances the ability of economic units to improve planning, design and production processes, with the aim of maintaining the competitiveness of their products in the markets for a longer period.
4. This integration contributes to increasing efficiency in resource consumption, which reduces costs and increases the profitability of the economic unit. Thus, it allows the economic unit to increase its ability to adapt to expected and unexpected changes in the markets. Customer needs can be met quickly and effectively.
5. The men's clothing factory in Najaf Al-Ashraf does not adopt any of the modern cost and administrative systems to calculate and manage the costs of its products. Instead, it relies on traditional costing systems to record and control costs. This approach forced the factory not to keep pace with developments in the modern business environment, which led to a decline in its market share and a loss of its competitive position.
6. The application of green target costing and time-oriented activity-based budgeting techniques definitely support the integration approach. Employing these tools contributes to achieving high flexibility in product manufacturing processes and optimum utilization of resources. This is reflected in enhancing the company's competitive advantage.

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