

## The Role of Green Target Cost Technique in Improving Sustainable Performance of Economic Units

**Ali Mahdi Hameed**

[dm.ali6@atu.edu.iq](mailto:dm.ali6@atu.edu.iq)

*Accounting Department, Al- Dewaniyah Technical Institute, Al-Furat Al-Awsat Technical University, Iraq*

### Abstract

This study aims to determine the effect of using green target cost method on improving sustainable performance in economic units. To achieve objective of the study, the researcher presents the green target cost method as one of the strategic management accounting methods, and its impact on green cost leadership, and its ability to achieve sustainable competitive advantage, and reduce costs of internal and external environmental failure. In the applied side, the researcher relied on the data of Al Douh Cement Plant in Iraq to determine the relationship between green target cost and its relationship to improving sustainable performance. Study concluded that the application of green target cost method is not limited to a specific stage of production, but rather requires integration with organization's vision, objectives and all its employees. It is associated with preserving the environment and reducing energy and producing green products.

**Keywords:** *Green target cost, sustainable performance, Economic Units.*

### Introduction

Modern management accounting methods aim to provide the necessary information for product pricing, which enhances the competitive role of industrial companies. The target cost method is one of the important methods used by managerial accounting for product pricing; reduce costs, assistance in product development <sup>1</sup>. Concept of target cost associated with determining the price of a product or service. Concept of green target cost associated with cost reduction in long term, based on reducing risks associated with production in balance with reducing environmental risks in the long term. Green target cost method is an extension of target cost method, which considered one of important strategic accounting methods for the economic unit.

The researcher believes that the studies that dealt with the topic of target cost focused on (the relationship of target cost to reduce costs - cost leadership - achieving competitive advantage - supporting sustainable marketing). While studies on green target cost focused on (reducing internal and external environmental failure costs - continuous improvement during the product life cycle - maintaining the company's image in the

---

<sup>1</sup> Jawhar Ahmed Saeed, "The Impact of the Use of Modern Management Accounting in Decision-Making for Industrial Companies in the Iraqi-Kurdistan Region/Erbil" (Bingöl Üniversitesi, 2018).

markets - reducing the costs of green products). Most of the studies that dealt with improving sustainable performance focused on defining the dimensions of sustainable performance. Some of these studies presented as follows:

The study Almusawi<sup>2</sup> aimed to using green target costing to build a sustainable competitive advantage by applying it to Al-Zawraa State Company for Electrical and Electronic Industries. The study concluded (possibility of reducing production costs by applying the green target cost and application of green target cost model). (Hamza 2022) study focused on clarifying the importance of using green target costing techniques and simultaneous engineering to achieve sustainable competitive advantage. Researcher believes that this study considered one of the good studies that explained the reasons for the shift from traditional target cost to green target cost. The application of the two technologies in Iraqi business environment. The study derives its importance from the importance of simultaneous engineering that emerged because of business strategies that change rapidly with market requirements and taking into account the environmental aspect.

Soror<sup>3</sup> study aimed to analyze the steps of green target cost in order to reduce internal and external environmental costs of failure of industrial companies to produce environmentally friendly products with little harm. The study recommended the need to use green target cost steps in determining product costs during the process of setting specifications for the product and determining the optimal selling price. Masset 2011<sup>4</sup> study aimed to determine the definition of green target cost. Impact of using green target cost as a strategic pillar to reduce costs of green products. Study concluded that use of green target cost as a strategic pillar affects reduction of costs of green products at Nafit paper institution. The use of green target cost supports cost of leadership strategy. Use of green target cost helps to produce an environmentally friendly product distinguished by its quality and thus generates demand for it and increases the quantities produced from it. Use of green target cost helps to achieve target-planned production of enterprise and achieve a competitive advantage in the market.

Obaid<sup>5</sup> study aimed to analyze and explore the impact of sustainable manufacturing practices on sustainability performance of Najibiyah power station. Study recommended the need for the organization to develop its technical and human

---

<sup>2</sup> Abbas Nawar Khait Almusawi and Sameer Shakir Mahmood Alani, "USING THE GREEN TARGET COST TO BUILD A SUSTAINABLE COMPETITIVE ADVANTAGE IN AL-ZAWRAA STATE COMPANY FOR ELECTRICAL AND ELECTRONIC INDUSTRIES PRODUCTION AND ASSEMBLY OF SOLAR PANELS," *International Journal of Research in Social Sciences* 12, no. 4 (2022): 183–209.

<sup>3</sup> Manal Jabbar Soror, "Green Target Cost and Its Effect on Reducing Environmental Failure Costs," *Tikrit Journal of Administration and Economics Sciences* 18, no. 60 part 3 (2022).

<sup>4</sup> Edoardo Masset et al., "A Systematic Review of Agricultural Interventions That Aim to Improve Nutritional Status of Children," *London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London*, 2011.

<sup>5</sup> Abdel Salam Ibrahim Obaid, "The Impact of Sustainable Manufacturing Practices on Sustainability Performance in Al-Najeebia Electric Station," *Managerial Studies Journal* 12, no. 24 (2020).

capabilities to ensure the gradual transformation of sustainable industrialization to improve performance.

The study Al-Sarayrah <sup>6</sup> aimed to determine the impact of lean production on sustainable performance by determining the mediating role of strategic agility in the Manaseer Industrial Complex in Karak. The study concluded that there is a statistically significant effect of lean production dimensions on sustainable performance in its dimensions. The study Shamata<sup>7</sup> also considered that the trend in sustainable marketing practices is one of the modern global marketing trends for sustainable development. The study concluded that there is a positive effect of sustainable marketing practices in improving marketing performance (marketing productivity - the moral value of the brand). The study also found that there is no significant relationship between marketing practices and customer influence. The study presented a set of theoretical and applied recommendations for academics and practitioners in the hospitality industry.

The study Khaled <sup>8</sup> aimed to shed light on the issue of strategic orientation and its relationship to sustainable performance, clarify the relationship of the strategic direction with the ERP system and sustainable performance, measuring the impact of the strategic direction of the Local Development Bank on improving sustainable performance. The study concluded that there is a strong and positive impact on sustainable performance, that the SAB enterprise resource planning system has an important role in supporting the bank to improve its performance, achieve a competitive position.

Micheli <sup>9</sup> study aimed to identify and analyze the impact of green supply chain practices in achieving sustainable performance. Study concluded that there is strong positive correlation between green supply chain practices and sustainable performance. Ajeel<sup>10</sup> study aimed to determine the effect of the synergy of the lean six-fold and green production in improving sustainable performance. Study concluded that lean six-part and green production have an important impact on environmental and social sustainable performance compared to economic performance. Study also presented mechanisms that enable managers to understand Lean Six Scattering methodology and improve sustainable

---

<sup>6</sup> Mohammad Iranmanesh et al., "Impact of Lean Manufacturing Practices on Firms' Sustainable Performance: Lean Culture as a Moderator," *Sustainability* 11, no. 4 (2019): 1112.

<sup>7</sup> Shamata, "The Potential Effects of Green Egyptian Hotels' Orientation towards Sustainable Marketing on Marketing Performance," *Journal of the Faculty of Tourism and Hotels, Mansoura University - Faculty of Tourism and Hotel* 10 (2021): 10.

<sup>8</sup> REDJEM Khaled, "Impact of the Human Resources Information System on the Effectiveness of Strategic Workforce Planning Case Study British Petroleum Company in Algeria.," *Journal of Financial, Accounting & Managerial Studies* 5, no. 2 (2018).

<sup>9</sup> Guido J L Micheli et al., "Green Supply Chain Management Drivers, Practices and Performance: A Comprehensive Study on the Moderators," *Journal of Cleaner Production* 259 (2020): 121024.

<sup>10</sup> Noor Jamal Ajeel and Safa Muhammad Hadi Hashem, "The Effect of Synergy of Lean Six Sigma and Green production to improve Sustainable Performance (A Case Study in Sama Al-Faihaa Pharmaceutical Industries)," *Managerial Studies Journal* 15, no. 30 (2021): 111–39.

performance. Al-Awlakistudy was concerned with analyzing the nature of direct and indirect impact between practices of green human resources management and improving sustainable performance of Yemeni pharmaceutical companies using mechanism of developing environmental knowledge and green behavior of employees. Study recommended need for corporate management to apply practice of green human resource management to develop environmental knowledge of employees. Hatem<sup>11</sup> study aimed to demonstrate effect of relationship between adaptive leadership and improving sustainable performance for a sample of premium class hotels. Study found that there is a statistically significant relationship between variables of study.

## Method

To determine the effect of using the green target cost method on improving sustainable performance, the researcher relied on the following two methods:

- The inductive method: by looking at and extrapolating the studies that dealt with the subject of research using the method of the desk study of Arab and foreign studies to study results of these studies.
- Deductive approach: which relies on logical thinking to find a solution to the problem of documenting e-commerce contracts.
- A case study of Al Douh Cement Plant in Iraq to determine relationship between green target cost and sustainable performance improvement.

This explained through following steps:

## Concept And Principles Of Target Cost

Target cost method began applied in the sixties of the last century. Target widely used by car manufacturers, software companies, electronics companies, home appliances companies, and construction companies. Target cost method developed in Japan and its use increased by more than 80% in all assembly industries. The target cost method has become one of the most successful methods used in auto manufacturers such as Toyota.

Target cost defined by the International Federation of Accountants as a cost management approach based on demand-based production. This is due to its focus on customer requirements regarding quality, cost and time. The target cost method is a tool for strategic planning because it tries to link cost management, perceived value, and customer requirements <sup>12</sup>.

---

<sup>11</sup> Eng Firas Naji Hatem and Eng Abbas Mahmoud Nayef, "Adaptive Leadership of Premium Class Hotels and Its Impact on Improving Sustainable Performance ((An Exploratory Study of a Sample of Premium Class Hotels in the City of Baghdad))," *Journal of The Iraqi University* 58, no. 2 (2023).

<sup>12</sup> Marwa Yousef Ahmed Al-Ghamry, "Target Cost and Kaizen as a Mechanism to Enhance the Perceived Value of the Customer," *Scientific Journal of Commercial and Environmental Studies* 10 (2019): 2.

Target cost supports cost reduction in the development phase, the design phase of a new product, making a comprehensive and simple change to an old product in companies.

Target cost depends on several foundations and principles, including<sup>13</sup>:

- Price leadership: It is competitive price accepted by the customer, and competitive price estimated based on market.
- Focus on customers: Customer is one who covers total costs, so his needs must met.
- Focusing on product design: Reducing pre-production costs.
- Functional integration and distribution of roles within company. Delivery product to customer on time.
- Tracking costs, starting from product design until product delivery to customer.
- Elimination of unnecessary jobs and activities in the value chain.

Target cost is one of the important methods that help management accountant in providing appropriate information about product. Target cost helps design and development team determine design goal, choosing appropriate alternative in light of target cost. Accounting tools provide cost information to alert design teams to cost pressures. As for non-accounting tools such as (value engineering - quality function deployment - QFD computer-aided design - CAD design for manufacturing and assembly - failure and impact analysis model - simulation) provide a structured approach to help design teams propose design alternatives<sup>14</sup>.

There are 6 basic principles of the target cost method (cost estimation - customer focus - prioritization of design - promotion of participation - the concept of product life cycle - commitment to value chain).

(Mohamed 2019) believes that the target cost method based on the following principles:

- Price leads the cost: the market price used to determine target cost. Target cost determined according to following equation:
- Price leads cost: Market price used to determine target cost. The target cost determined according to following equation: Target cost = selling price - desired profit margin
- Focus on customers.
- Focus on product design.
- Integrated work teams.
- Focusing on the value chain.
- Orientation of the product life cycle.

---

<sup>13</sup> Saeed, "The Impact of the Use of Modern Management Accounting in Decision-Making for Industrial Companies in the Iraqi-Kurdistan Region/Erbil."

<sup>14</sup> Enas Gomaa Fahmy Shoker, "Integration of Concurrent Engineering and Social Responsibility as an Integrated Framework for Improving Product Value: A Field Study on Small and Medium Enterprises," *Journal of Financial and Business Research* 15, no. 1 (2022): 87–109.

- Participation of suppliers in the design processes.
- The interrelationship between internal and external factors.

### Concept And Principles Of Green Target Cost

Green target cost is a technique that integrates environmental costs and requirements with traditional target costing. Green target cost is an accounting method that includes benefits and indirect costs of economic activities. Green target cost relates to the environmental impacts and health consequences of business plans and decisions. It also defined as a process that depends on determining target price and target profit in the light of market factors to reach the target cost of the product, used as a planning tool to analyze the allowable cost in producing and designing a new product or developing an existing product.

Concept of green target cost associated with sustainable green product innovation. Green innovation linked to concept of green product innovation and green process innovation. Concept of green product innovation means introduction of new or significantly improved products that meet environmental requirements in terms of (non-toxic raw products - green design - energy saving - pollution control - recyclability - low waste volume). Concept of green process innovation refers to modifications made in manufacturing process and systems to produce environmentally friendly products that comply with environmental standards determined by the social environment in which company operates <sup>15</sup>.

There were many opinions of researchers about the concept of sustainable performance, and it clarified as in the following table <sup>16</sup>:

NO	Author	The concept of sustainable performance
1	Smith&lewis,2011	Process of achieving peak performance in the short term by which the future success of the organization ensured.
2	Miller Minter & Malan, 2011	The way in which the organization add value to shareholders in particular and to society in general. The positives reinforced and the negatives of economic, environmental and social issues eliminated.
3	Searcy,2012	They are the administrative processes in the organization (planning, organization and supervision) that help in managing economic, environmental and social activities in the short and the long term.

<sup>15</sup> Mohammed Sameer Deherieb A L Robaaiy, "The Role Of Concurrent Engineering Technology And Green Target Costing In Achieving Sustainable Competitive Advantage Assistant Professor Dr. Mohammed Sameer Deherieb AL Robaaiy (PhD)," 2022.

<sup>16</sup> Iranmanesh et al., "Impact of Lean Manufacturing Practices on Firms' Sustainable Performance: Lean Culture as a Moderator."

---

4	Rabih A. 2015	Developing the patterns of the productive process through the optimal use of available natural resources. To meet the needs of future generations. To meet the basic needs of world is poor. Sustainable performance focuses on the ways in which technology used and considers the relationship between environmental, economic and social issues.
5	Juhani. 2015	An integrated approach that helps the organization achieve a balance between economic, environmental and social aspects to add value to organization and society. Sustainable performance contributes to preserving the rights of future generations.
6	Hamdan. 2016	Maximizing the net benefits achieved for individuals in the long term to include (income benefits - reducing poverty and unemployment rates - improving the quality of life of individuals - taking more care of the environment).
7	Khana.abu talibb 2020	An approach that contributes to supporting the relationship between the environmental, social and economic dimensions, which leads to improving the performance.

---

Sustainable performance also based on four pillars: the pillar of values to ensure continuity - the pillar of the market to ensure competitiveness - the pillar of individuals to ensure productivity - the pillar of crafts to ensure profitability <sup>17</sup>.

### **Result and Discussion**

After determining the green target price, the profit margin and the green target cost should be determined as the third step of the green target costing steps according to the following equations (Sultan, 2018: 156).

**Profit margin = green selling price x profit margin percentage**

**Green target cost = green selling price – profit margin**

In general, the profit margin was set at 30% based on interviews with the factory director.

Profit margin = 6462 dinars x 30% = 1938.6 dinars per bag

Green target cost = 6462 dinars - 1938.6 dinars = 4523.2

The target cost of the bag was estimated at (4523.2) dinars, meaning that the cost of manufacturing it at the local level, which was estimated at (6000 dinars) by the factory, is greater than the green target cost. This proves the rationality of the factory management in determining the selling price and the target profit margin, and thus the possibility of

---

<sup>17</sup> Hatem and Nayef, "Adaptive Leadership of Premium Class Hotels and Its Impact on Improving Sustainable Performance ((An Exploratory Study of a Sample of Premium Class Hotels in the City of Baghdad))."

achieving the green target cost. Therefore, the laboratory management must intensify its efforts to reach them. Based on the results achieved, we conclude that determining the green target cost requires first determining the selling price at which the bag can be sold, and by subtracting the target profit from the latter, we determine the green target cost within which the product must be manufactured. Therefore, price leadership of the cost affects reducing the costs of green products in the Al Douh Cement Plant.

### ***Distribution Of Costs Among Green Cost Vectors According To Customer Requirements***

Within this stage, the permissible costs are determined for each component of the product during its life cycle, as shown in the following table :

**Table 2.** Distribution of costs among green cost vectors

	<b>Component name</b>	<b>Cost</b>	<b>Contribution ratio compared to the total cost</b>
1	Limestone	700	13%
2	Dirt	900	17%
3	Gypsum stone	950	18%
4	Clinker material	1500	28%
5	Moisture and salt resistant materials	725	13%
6	Packaging bags	600	11%
		5375	100%

Source: Prepared by the researcher based on laboratory records

Based on the cost of the components, the percentage contribution of the cost of the components to the total cost of the bag was extracted and can be found according to the equation below:

$$\text{Ingredients cost contribution ratio} = \text{bag components cost} \div \text{total cost}$$

### ***Implement Green Target Cost Management Measures***

The current cost, which was set at (5375 dinars) according to the factory records, is compared to the green target cost of (4523.2 dinars). Accordingly, the cost gap is determined according to the following equation:

$$\text{Cost gap} = 5375 - 4523.2 = 851.8 \text{ dinars}$$

This difference represents costs that must be reduced by the factory to reach the target cost, by reconsidering all costs related to this bag. However, it does not mean that the factory makes a loss as long as the estimated cost is greater than the targeted selling price, as it indicates the opposite, with an estimated profit:

$$\text{Profit} = 6462 - 5375 = 1087 \text{ dinars}$$

Therefore, the green target cost for the bag's components is as follows:

$$\text{Green target cost for green bag components} = \text{green target cost} \times \text{component cost ratio}$$



**Table 3.** Distribution of costs among green cost vectors

	<b>Component name</b>	<b>Cost</b>	<b>Contribution ratio compared to the total cost</b>	<b>Green target cost</b>	<b>Gap</b>
1	Limestone	700	13%	588.02	111.98
2	Dirt	900	17%	768.91	131.09
3	Gypsum stone	950	18%	814.14	135.86
4	Clinker material	1500	28%	1266.4	233.6
5	Moisture and salt resistant materials	725	13%	587.99	137.01
6	Packaging bags	600	11%	497.53	102.47
		5375	100%	4523	

Source: Prepared by the researcher based on laboratory records

To reduce the gap between the green target cost and the current cost of the green bag, modern methods must be used to achieve the main goal that organizations seek, which is to meet customer requirements and achieve sustainable performance by reducing product costs and improving their value, by resorting to the application of value engineering as a complementary technology to green target costing.

### ***Sustainable performance indicators***

The researcher distributed (53) survey forms to workers in the laboratory (under study), which included (9) paragraphs, including (9) paragraphs related to the technical and engineering requirements related to the dimensions of sustainable performance, as the goal of these opinions was to identify the most important dimensions necessary to achieve sustainable performance. Table () shows Sustainable performance indicators for the factory under study and As follows.

**Table 4.** Weighted sum and weighted arithmetic mean for the dimensions of sustainable performance

Dimensions of sustainable performance			very important (5)	Important (4)	Some kind of (3)	not important (2)	Not very important (1)	Weighted	Weighted arithmetic mean
Economic	The design is consistent with the culture of sustainability to achieve potential benefits from legal authorities (such as profits and grants)	16	14	11	9		187	0.033	

	We ensure that the product development process is streamlined with minimal waste to increase productivity	18	14	13	5		672	0.120
	Capital adequacy indicators	25	13		9	3	677	0.121
	Providing environmental awareness is an important dimension of sustainability	22	11	9	5	3	747	0.134
	The design takes into account recycling elements to achieve the best investment of available resources	13	15	12	7	3	603	0.108
Social dimension	The best use of available resources contributes to securing the future needs of the teacher	18	11		16	5	526	0.094
	The product design takes into account the harmful effects on the air and atmosphere to protect the environment from pollution	14	16	3	13	4	656	0.117
Environmental dimension	The product design takes into account liquid waste and facilitates its drainage process	19	22		9		735	0.132
	Product design takes into account the potential effects of the product on human health	20	16	8	6		786	0.141
Total							5589	100%

The results of the table above indicate that there is a discrepancy in the dimensions of sustainable performance, as the environmental impact dimension ranked second through the paragraph (product design takes into account the potential effects of the product on human health), with the highest weighted arithmetic mean of (0.141), and the same dimension took second place (product design takes into account waste). liquid and is easy to dispose of) with a weighted arithmetic mean of (0.132), followed by the social

dimension in third place through the paragraph (providing environmental awareness is an important dimension of sustainability) with a weighted arithmetic mean of (0.134). The table () shows the order of precedence of the dimensions of sustainable performance, in descending order.

**Table 5.** Ranking of precedence of sustainable performance dimensions

<b>Dimensions of sustainable performance</b>	<b>Weighted arithmetic mean</b>	<b>Cumulative percentage</b>
Product design takes into account the potential effects of the product on human health	786	786
Providing environmental awareness is an important dimension of sustainability	747	1533
The product design takes into account liquid waste and facilitates its drainage process	735	2268
Capital adequacy indicators	677	2945
We ensure that the product development process is streamlined with minimal waste to increase productivity	672	3617
The product design takes into account the harmful effects on the air and atmosphere to protect the environment from pollution	656	4273
The design takes into account recycling elements to achieve the best investment of available resources	603	4876
The best use of available resources contributes to securing the future needs of the teacher	526	5402
The design is consistent with the culture of sustainability to achieve potential benefits from legal authorities (such as profits and grants)	187	5589

Source: Prepared by the researcher based on the outputs of the Excel program.

It is noted from the table above that the environmental dimension received the highest rank, while the social dimension obtained second place, and the economic dimension obtained third place in terms of ranking, as this dimension reflects the goal of maximizing the production of goods and services, and it can be said that any economic system is considered more... Efficiency compared to another system if it enables more goods and services to be provided to society without using more resources.

Use of green target cost and its relationship to improving sustainable performance is not limited to a productive stage of product production. The concept of green target cost linked to the vision of company and all stages of production and all employees of the company. Company's commitment to dimensions of green target cost and its measurement indicators considered a good tool for improving sustainable performance.

Sustainable performance improvement depends largely on the extent of commitment to use of green target cost. There is a mutual relationship between both green target cost and improvement of sustainable performance.

### **Conclusion**

Use of green target cost and its relationship to improving sustainable performance is not limited to a productive stage of product production. The concept of green target cost linked to the vision of company and all stages of production and all employees of the company. Company's commitment to dimensions of green target cost and its measurement indicators considered a good tool for improving sustainable performance. Sustainable performance improvement depends largely on the extent of commitment to use of green target cost. There is a mutual relationship between both green target cost and improvement of sustainable performance.

### **Recommendations**

Each company must develop a document within its vision and objectives for the dimensions of green target cost and its measurement indicators, dimensions of sustainable performance improvement and its measurement indicators to adhere to in order to ensure its continuity and achieve its competitive advantage. The company should also follow up on compliance with document on a regular basis.

### **References**

- Ajeel, Noor Jamal, and Safa Muhammad Hadi Hashem. "The Effect of Synergy of Lean Six Sigma and Green production to improve Sustainable Performance (A Case Study in Sama Al-Faihaa Pharmaceutical Industries)." *Managerial Studies Journal* 15, no. 30 (2021): 111–39.
- Al-Ghamry, Marwa Yousef Ahmed. "Target Cost and Kaizen as a Mechanism to Enhance the Perceived Value of the Customer." *Scientific Journal of Commercial and Environmental Studies* 10 (2019): 2.
- Almusawi, Abbas Nawar Khait, and Sameer Shakir Mahmood Alani. "USING THE GREEN TARGET COST TO BUILD A SUSTAINABLE COMPETITIVE ADVANTAGE IN AL-ZAWRAA STATE COMPANY FOR ELECTRICAL AND ELECTRONIC INDUSTRIES PRODUCTION AND ASSEMBLY OF SOLAR PANELS." *International Journal of Research in Social Sciences* 12, no. 4 (2022): 183–209.
- Alsafar, Montader Ismail. "Resources Consumption Accounting, Cost Reduction For Customers, and Competitive Advantage: An Iraqi Case Study." *Akkad Journal of Contemporary Management Studies* 1, no. 2 (2021): 80–96.
- Butt, Arif N, Shezeen Hemani, and Yasar Rashid. "Human Resource Management at Oceatic Airways." *Asian Journal of Management Cases* 6, no. 1 (2009): 5–26.
- Hatem, Eng Firas Naji, and Eng Abbas Mahmoud Nayef. "Adaptive Leadership of

- Premium Class Hotels and Its Impact on Improving Sustainable Performance ((An Exploratory Study of a Sample of Premium Class Hotels in the City of Baghdad)).” *Journal of The Iraqi University* 58, no. 2 (2023).
- Iranmanesh, Mohammad, Suhaiza Zailani, Sunghyup Sean Hyun, Mohd Helmi Ali, and Kwangyong Kim. “Impact of Lean Manufacturing Practices on Firms’ Sustainable Performance: Lean Culture as a Moderator.” *Sustainability* 11, no. 4 (2019): 1112.
- Khaled, REDJEM. “Impact of the Human Resources Information System on the Effectiveness of Strategic Workforce Planning Case Study British Petroleum Company in Algeria.” *Journal of Financial, Accounting & Managerial Studies* 5, no. 2 (2018).
- Masset, Edoardo, Lawrence Haddad, Alex Cornelius, and Jairo Isaza-Castro. “A Systematic Review of Agricultural Interventions That Aim to Improve Nutritional Status of Children.” *London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London*, 2011.
- Micheli, Guido J L, Enrico Cagno, Gianluca Mustillo, and Andrea Trianni. “Green Supply Chain Management Drivers, Practices and Performance: A Comprehensive Study on the Moderators.” *Journal of Cleaner Production* 259 (2020): 121024.
- Obaid, Abdel Salam Ibrahim. “The Impact of Sustainable Manufacturing Practices on Sustainability Performance in Al-Najeebia Electric Station.” *Managerial Studies Journal* 12, no. 24 (2020).
- Robaaiy, Mohammed Sameer Deherieb A L. “The Role Of Concurrent Engineering Technology And Green Target Costing In Achieving Sustainable Competitive Advantage Assistant Professor Dr. Mohammed Sameer Deherieb AL Robaaiy (PhD),” 2022.
- Saeed, Jawhar Ahmed. “The Impact of the Use of Modern Management Accounting in Decision-Making for Industrial Companies in the Iraqi-Kurdistan Region/Erbil.” *Bingöl Üniversitesi*, 2018.
- Sari, Ria Nelly, Aura Pratadina, Rita Anugerah, Kamaliah Kamaliah, and Zuraidah Mohd Sanusi. “Effect of Environmental Management Accounting Practices on Organizational Performance: Role of Process Innovation as a Mediating Variable.” *Business Process Management Journal* 27, no. 4 (2021): 1296–1314.
- Shamata. “The Potential Effects of Green Egyptian Hotels’ Orientation towards Sustainable Marketing on Marketing Performance.” *Journal of the Faculty of Tourism and Hotels, Mansoura University - Faculty of Tourism and Hotel* 10 (2021): 10.
- Shoker, Enas Gomaa Fahmy. “Integration of Concurrent Engineering and Social Responsibility as an Integrated Framework for Improving Product Value: A Field Study on Small and Medium Enterprises.” *Journal of Financial and Business Research* 15, no. 1 (2022): 87–109.
- Soror, Manal Jabbar. “Green Target Cost and Its Effect on Reducing Environmental Failure Costs.” *Tikrit Journal of Administration and Economics Sciences* 18, no. 60 part 3 (2022).

Yacob, Peter, Lai Soon Wong, and Saw Chin Khor. "An Empirical Investigation of Green Initiatives and Environmental Sustainability for Manufacturing SMEs." *Journal of Manufacturing Technology Management* 30, no. 1 (2019): 2–25.