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سلسلة التوريد المستدامة وتأثيرها في تحقيق التميز التسويقي :دراسة تحليلية في الشركة العامة لصناعات النسيج والجلود

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المستخلص

بحث هذا البحث في العلاقة بين التميز التسويقي وممارسات سلسلة التوريد المستدامة في الشركة العامة لصناعات النسيج والجلود في العراق .واعتمد البحث منهجاً وصفياً ذا تصميم مقطعي، إذ وُزعت استبانة منظمة على عينة قصدية مكونة من 64 مديراً ومشرفاً .وقيسَت إدارة سلسلة التوريد المستدامة من خلال الأنشطة المرتبطة بالموردين، والأنشطة التشغيلية الداخلية، وأنشطة اللوجستيات المستدامة والخدمات الداعمة، في حين قيس التميز التسويقي من خلال جودة الخدمة، والاحتفاظ بالعملاء، والابتكار التسويقي، والقدرات المميزة .وحُللت البيانات باستخدام الإحصاءات الوصفية والانحدار المتعدد في برنامج SPSS 28. أفاد المشاركون بوجود مستويات مرتفعة من تبني ممارسات سلسلة التوريد المستدامة وتحقيق التميز التسويقي . وكانت نماذج الانحدار دالة إحصائياً، إذ فسرت 48%من التباين في جودة الخدمة، و 41%في الاحتفاظ بالعملاء، و 37%في الابتكار التسويقي، و 55%في القدرات المميزة .وارتبطت الأنشطة التشغيلية الداخلية ارتباطاً أقوى بالاحتفاظ بالعملاء والابتكار التسويقي، بينما ارتبطت الأنشطة المتعلقة بالموردين بصورة أقوى بجودة الخدمة والقدرات المميزة .وعلى الرغم من أن التصميم المقطعي ودراسة منظمة واحدة لا يسمحان بإثبات العلاقة السببية، فإن النتائج تشير إلى أن تكامل مبادرات الاستدامة قد يدعم التميز التسويقي .ويوصي البحث بتعزيز تقييم الموردين، واعتماد أساليب إنتاج أنظف، وتطوير آليات منهجية لإشراك العملاء

الكلمات المفتاحية :سلسلة توريد مستدامة، تميز في التسويق، التصنيع العام العراقي، التوريد المستدام، الابتكار التسويق.

The supply chain began to achieve marketing continuity: An analytical study in the General Company for Textile and Leather Industries

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Abstract

This research looks at the relationship between *marketing* excellence and sustainable supply chain practices at the General Company for Textile and Leather Industries in Iraq. A structured questionnaire was given to a purposive sample of 64 managers and supervisors using a descriptive, cross-sectional methodology. While marketing excellence was evaluated by service quality, customer retention, marketing innovation, and distinctive capabilities,

sustainable supply chain management was evaluated through supplier-related, internal operational, and sustainable logistics and support activities. Multiple regression and descriptive statistics were used in SPSS 28 to examine the data. High adoption levels for marketing excellence and sustainable supply chain strategies were noted by respondents. 48% of the variance in service quality, 41% in customer retention, 37% in marketing innovation, and 55% in distinctive capabilities were explained by the statistically significant regression models. Internal operations were most strongly correlated with customer retention and marketing innovation, whereas supplier-related activities were most strongly correlated with service quality and distinctive capabilities. Although the cross-sectional, single-organization methodology does not prove causation, the results imply that integrated sustainability initiatives could promote marketing excellence. Stronger supplier assessment, more cleaner production methods, and methodical client involvement are all suggested by the research.

Keywords: Sustainable supply chain، Marketing excellence، Iraqi public manufacturing، Sustainable sourcing، Marketing innovation

1. Introduction

The General Company for Textile and Leather Industries competes in a market that is marked by fierce import rivalry, shifting customer expectations, technical pressure, and rising environmental and social demands. Because coordinated decisions among suppliers, internal operations, and customers are essential to product quality, delivery reliability, resource efficiency, and market reaction, these conditions are crucial for Iraqi public manufacturers. An integrated method for aligning these flows and capacities is provided by sustainable supply chain management (Brandenburg et al., 2014; Ni & Sun, 2019; Negri et al., 2021).

The corporation operates in a market characterized by import competition, shifting customer expectations, and growing demand to increase resource efficiency and sustainability. Because the materials used for this study did not include harmonized company-level data on market share, sales trends, or customer complaints, no unsupported numerical claims regarding the Iraqi textile market are made. Determining which sustainable supply-chain practices are associated with particular traits of marketing excellence in the public manufacturing company under investigation is therefore the practical goal.

According to this study, marketing excellence is a complex organizational capability that shows up as distinctive capabilities, customer retention, service quality, and marketing innovation. The company's ability to deliver consistent value, maintain client relationships, revitalize market-facing procedures, and allocate resources in ways that differentiate it from competitors is reflected in these dimensions. In contrast, research on sustainable supply chains has more often focused on operational, environmental, and competitive outcomes (Alzoubi et al., 2020; Homburg et al., 2020). The current analysis connects these streams without assigning the marketing-excellence definition to sources that do not directly address the concept.

To bridge that gap, this study explains how three sustainable supply chain dimensions supplier-related activities, internal operational activities, and sustainable logistics and support activities—are connected to four aspects of marketing excellence: service quality, customer retention, marketing innovation, and distinctive capabilities. According to the proposed logic, efficient, low-waste internal operations improve consistency and innovation potential, responsible supplier selection improves input quality and credibility, and customer cooperation raises market awareness and responsiveness.

The study offers a targeted empirical evaluation of these connections in the General Company for Textile and Leather Industries. The study methods and previous research are presented in the remaining portion of the paper, which also develops the theoretical framework and hypotheses, presents and discusses the empirical data, and ends with pertinent conclusions, helpful suggestions, limitations, and future research opportunities. In the manufacturing industry, competitive advantage and organizational performance have been associated with sustainable supply chain management (Shebeshe & Sharma, 2024; Feng et al., 2024).

2. Research Methodology and Previous Studies

2.1. Research Methodology

2.1.1. Research Problem

The lack of company-specific empirical data demonstrating which sustainable supply-chain elements are most strongly linked to customer retention, marketing innovation, service quality, and unique capabilities is the practical research challenge. As a result, the study looks at these connections within the General Company for Textile and Leather Industries. Because verified company-level indicators such as market share, sales trends, and complaint rates were not supplied with the study materials, the problem statement does not infer deterioration or improvement in those indicators. The theoretical gap concerns the limited integration of multidimensional marketing excellence with sustainable supply-chain practices in Iraqi public manufacturing. The

following query is used to frame the research topic in light of this viewpoint: How much does the General Company for Textile and Leather Industries' achievement of service quality, customer retention, marketing innovation, and distinctive capabilities depend on supplier-related, internal operational, and sustainable logistics and support activities?

2.1.2. Research Importance

This study is significant because it determines the degree to which the organization under investigation has implemented sustainable supply chain practices and assesses their impact on marketing excellence. Additionally, it provides management insights into how creative product development, adaptation to shifting consumer demands, and enhancement of competitive advantage may all be supported by sustainable supply chain processes. The research also emphasizes how crucial it is to integrate sustainability concepts into marketing and production procedures in order to find operational flaws and provide suitable fixes. Additionally, it helps raise employees' awareness of sustainable supply chain principles and procedures. By striking a balance between economic performance and social and environmental obligations, sustainable supply chain management has emerged as a crucial strategic method for attaining long-term competitiveness (Seuring & Müller, 2008).

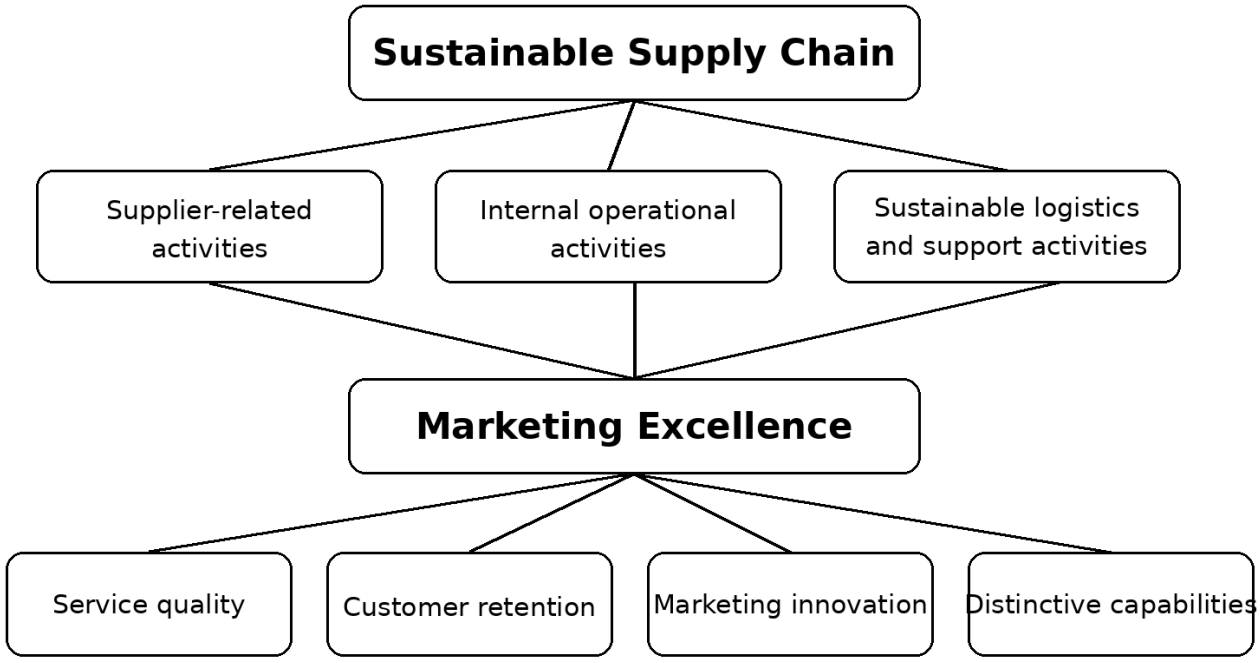
2.1.3. Research Objectives

This study uses multiple regression analysis to estimate the predictive effects of sustainable supply chain dimensions on service quality, customer retention, marketing innovation, and distinctive capabilities. It also assesses the degree of marketing excellence attained and the degree of sustainable supply chain implementation in the investigated company.

2.1.4. Hypothetical Research Model

The proposed approach connects marketing excellence with sustainable supply chain management by utilizing the resource-based view and stakeholder theory. According to the resource-based view, the three aspects of sustainable supply chain management activities related to suppliers, internal operations, and customers can produce complementary resources, effective organizational procedures, and useful market knowledge that are hard for rivals to copy. Stakeholder theory goes on to describe how organizational legitimacy and consumer value may be strengthened by striking a balance between the expectations of suppliers, workers, customers, and environmental stakeholders. The notion that the three sustainable supply chain characteristics will favorably predict service quality, customer retention, marketing innovation, and distinctive skills is supported by these theoretical viewpoints taken together.

Figure 1. Proposed Research Model



Source: Created by the authors using the literature review as a guide.

2.1.5. Research Hypotheses

The hypotheses were reformulated to match the four dependent-variable regression models used in the analysis:

H1: The three sustainable supply-chain dimensions jointly have a statistically significant positive predictive association with the dimensions of marketing excellence.

H1a: Supplier-related activities, internal operational activities, and sustainable logistics and support activities jointly and positively predict service quality.

H1b: Customer retention is positively and jointly predicted by supplier-related, internal operational, and sustainable logistics and support activities. H1c: Marketing innovation is positively and jointly predicted by supplier-related, internal operational, and sustainable logistics and support activities. H1d: Supplier-related activities, internal operational activities, and sustainable logistics and support activities all positively and jointly predict marketing excellence.

2.1.6. Research Method

The study used a quantitative, cross-sectional, descriptive analytical paradigm. This methodology allows you to examine the statistical predictive influence of sustainable supply chain features on marketing superiority at a certain point in time. In this text,

"effect" refers to the predictive influence of an independent variable produced by regression analysis, taking other predictors into account, rather than temporal or experimental causality.

2.1.7. Research Population and Sample

The cohort was made up of managers and supervisors who had firsthand knowledge of procurement, production, sustainability, and marketing decisions at the General Company for Textile and Leather Industries. The analytical dataset included 64 valid questionnaires. This sample size is used consistently in the revised manuscript because the study's item-level descriptive means are mathematically consistent with N = 64. Participants held supervisory or senior management positions related to the study variables. Because data on the entire eligible population and the initial questionnaire distribution log are unavailable, no unsubstantiated response-rate percentage is provided. The intentional, single corporate sample limits the ability to generalize. The study uses a small purposive sample and three predictors in each regression model. Inferential results must thus be carefully examined, and model diagnostics should be included in the final statistical results. Any power or sensitivity analysis should be recalculated using the original dataset and validated analytic sample, rather than being based on summary tables.

2.1.8. Research Boundaries

The study covers four areas. Marketing expertise and sustainable supply chain governance are the primary factors that define the topic's boundaries. Human boundaries include managers and decision-makers within the organization under investigation, such as the general manager, deputy managers, department heads, and section supervisors. Geographically, the study was conducted at the General Company for Textile and Leather Industries in Baghdad's Al-Karrada neighborhood. The timeline ran from December 15, 2024 to March 23, 2026, and included the entire research process, including questionnaire development, academic review, organizational approval, questionnaire distribution and collection, data coding and verification, statistical analysis, result interpretation, and manuscript preparation. As a result, rather than being a continuous period of questionnaire administration, this period reflects the complete study process.

2.1.9. Data Collection and Analysis Methods

The main tool used to obtain the data was a structured questionnaire. The seven aspects of its items—supplier-related activities, internal operational activities, sustainable logistics and support activities, service quality, customer retention, marketing innovation, and distinctive capabilities—were derived from the pertinent theoretical literature. Each item was designed as a simple, objective, single-idea

declarative statement that was measured using a five-point Likert scale. Only items closely related to the constructs in the conceptual model were retained in order to ensure adequate construct coverage, avoid duplication, reduce respondent fatigue, and improve answer completion. To increase transparency and facilitate replication, the complete questionnaire is included in Appendix A.

Answers were gathered anonymously, participants were given consistent instructions, and the questionnaire's items matched their designated dimensions. Cronbach's alpha coefficients of 0.918 for supplier-related activities, 0.873 for internal operational activities, 0.836 for sustainable logistics and support activities, 0.907 for service quality, 0.912 for customer retention, 0.906 for marketing innovation, and 0.891 for distinctive capabilities are shown in the authors' statistical revision documents. The overall scale alphas reported were 0.864 for sustainable supply chain and 0.853 for marketing excellence. Internal coherence is strengthened by these values. However, the original item-level dataset is required because composite reliability (CR), average variance extracted (AVE), exploratory factor analysis/confirmatory factor analysis (EFA/CFA), the Heterotrait-Monotrait ratio (HTMT), and Harman's single-factor assessment cannot be reliably derived from summary statistics. Before they are finally reported, they must be calculated from the primary data.

Table. The authors' statistical revision materials present findings on internal consistency.

Dimension	Cronbach's alpha
Supplier-related activities	0.918
Internal operational activities	0.873
Sustainable logistics and support activities	0.836
Service quality	0.907
Customer retention	0.912
Marketing innovation	0.906
Distinctive capabilities	0.891
Sustainable supply chain (overall)	0.864
Marketing excellence (overall)	0.853

Source: Statistical revision notes provided by the authors.

SPSS Version 28 was used to analyze the data. The questionnaire items were ranked, and the respondents' responses were described using weighted arithmetic means, standard deviations, and coefficients of variation. The three sustainable supply chain parameters were then concurrently incorporated as predictors in each marketing-excellence model using multiple regression analysis; simple regression was not

utilized. Because each marketing-excellence dimension represented a conceptually different outcome and the available statistical data did not allow the reconstruction of a single multivariate model, four unique multiple-regression models were kept. This method may raise the familywise Type I error rate even though it facilitates dimension-specific managerial interpretation. As a result, rather than isolated p-values, the results are mostly interpreted based on coefficient patterns and R^2 values. Furthermore, future research should report these diagnostics and take into account multivariate regression, MANOVA, or structural equation modeling to examine the results jointly, as the available output did not include tests of residual normality, homoscedasticity, independence, influential observations, or multicollinearity.

2.2. Previous Studies

2.2.1. Sustainable Supply Chain Outcomes

Sustainable supply chain management is regularly associated with competitive and operational results, according to research. Internal sustainable operations convert those inputs into resource-efficient and consistent processes; supplier-related sustainability increases access to reliable inputs and extends environmental and social requirements upstream; and customer-related collaboration links sustainability performance with demand data and perceived value. While empirical evidence indicates that supply chain integration can support resilience, flexibility, innovation, and business performance (Siagian et al., 2021), recent international reviews stress that sustainability, resilience, integration, and innovation should be viewed as mutually reinforcing supply chain capabilities (Chowdhury et al., 2021; Negri et al., 2021). Al-Juwaibrawi (2024) connected sustainable purchasing, manufacturing, storage, transportation, and reverse logistics with product quality in the regional context, whereas Al-Shamroukh (2022) discovered favorable correlations between sustainable supply chain characteristics and organizational performance. The three activity groups' ability to predict a multidimensional marketing-excellence construct is not directly explained by this research, but they do demonstrate performance gains. Recent studies in manufacturing and SMEs further associate sustainability practices with firm-level performance, while highlighting the importance of organizational capabilities and supply-chain processes (Türkeș et al., 2024; Agyabeng-Mensah et al., 2025).

2.2.2. Marketing Excellence and Organizational Capabilities

Marketing excellence is viewed here as a higher-level corporate result shown via four complementary talents. Service quality is concerned with the consistent delivery of value; customer retention reflects the ability to maintain relationships; marketing innovation is concerned with the renewal of offerings and market practices; and distinctive capabilities are difficult-to-imitate combinations of knowledge, coordination, and responsiveness. Homburg et al. (2020) ascribe marketing excellence

to the interplay of the marketing ecosystem, customer focus, and marketing agility, while Al-Fares (2025) illustrates how technology-driven marketing competencies can enhance excellence. Sustainable supplier management could enhance service excellence and uniqueness, whereas efficient internal processes may aid in retention and innovation. Customer cooperation can enhance responsiveness in all four goals. This mechanism-oriented framework endows the dependent variable with equivalent dimensional precision to the sustainable supply chain paradigm. Parichatnon et al. (2025) examined the interrelation of green supply chain management, product innovation, and marketing performance within the Thai processed-food sector; nonetheless, marketing performance should not be conflated with the four-dimensional marketing excellence framework employed in this context.

2.2.3. Critical Synthesis and Research Gap

A capability-oriented framework integrates the two bodies of literature: customer-focused sustainability efforts can generate market insight and trust; sustainable internal processes can improve efficiency, uniformity, and innovation; and sustainable supplier partnerships can elevate input quality and reputation. Nevertheless, prior studies frequently examine marketing capability, product quality, and operational success in isolation. Few studies examine how the four aspects of marketing excellence within an Iraqi public manufacturing firm are jointly predicted by the three sustainable supply chain characteristics. The current paradigm is motivated by this conceptual and contextual mismatch. Recent studies also examine the roles of competitive advantage and servitisation innovation in translating sustainability practices into organizational outcomes (Shebeshe & Sharma, 2024; Alkaraan et al., 2025).

2.2.4. Contribution of the Present Study

This study makes a contribution by combining studies on marketing excellence and sustainable supply chains into a single explanatory framework. External relational resources that might enhance input quality, delivery reliability, legitimacy, service quality, and distinctive capabilities are represented by supplier-related activities. Organizational routines that can reduce waste, maintain quality, foster innovation, and aid in customer retention are embodied in internal operational activities. Customer-related activities may enhance responsiveness across all four marketing objectives by providing stakeholder input and market intelligence. A conceptual and contextual vacuum in the data from Iraqi public manufacturing enterprises is filled by testing these three processes collectively across service quality, customer retention, marketing innovation, and distinctive skills. The contribution does not prove causation; rather, it provides an exploratory comparison of predicted patterns.

3. Theoretical Framework

Sustainable supply chain management has arisen as a modern managerial strategy that offers firms an effective framework for improving environmental performance and increasing competitiveness. It helps to improve product components and design, as well as manufacturing, packaging, shipping, distribution, purchasing, storage, and green marketing practices. These strategies are critical components of sustainable and environmentally conscious supply chain management. Organizations may create long-term value by incorporating environmental, social, and economic factors across supply chain operations, while also adapting effectively to changing market needs and stakeholder expectations.

3.1. Concept of Sustainable Supply Chain

Supply chains are now more important than ever as a measure of corporate performance. Technology-based firms that can successfully manage their supply chains and adapt to quickly changing business environments are more likely to retain sustainability, competitiveness, and long-term growth (Brandenburg et al., 2014). Brandenburg et al. (2014) defined supply chain management as the management of financial and material flows across networks of internal and external contacts that work together to produce value and meet customer expectations (Carter and Rogers, 2008).

The goal of sustainable supply chain management is to enhance supply chain operations by integrating social, economic, and environmental factors. Its main goal is to provide long-term value for all parties involved, including businesses, consumers, and society (Carter & Rogers, 2008). Additionally, the notion of sustainable supply chain management encompasses the whole product life cycle, starting with sourcing and procurement and continuing through manufacture, transportation, and distribution. It entails applying sustainable concepts to every facet of supply chain management (Seuring & Müller, 2008). The management of sustainable supply chains is accomplished by raising environmental awareness about the dangers of using hazardous materials, encouraging the use of environmentally friendly raw materials, developing predictive product life-cycle plans, and incorporating eco-design principles into manufacturing and remanufacturing processes (Brandenburg et al., 2014). Sustainable supply chain management is an integrated system that includes the movement of capital, information, and commodities, as well as collaboration among all supply chain stakeholders. It takes into account numerous factors, including sustainable purchasing, production, and storage, all of which are based on stakeholder and consumer requirements. Additionally, strategic elements such as supplier strategy, operational strategy, and logistics strategy work in tandem with sustainable supply chain management. Decisions on inventory and transportation are therefore seen as

crucial components of supply chain strategy, which facilitates organizational operations and information flow. Supply chains should be planned, implemented, monitored, and improved in a way that meets current requirements without jeopardizing the capacity of future generations to satisfy their own (Cetindamar et al., 2022:2).

3.2. Importance of Sustainable Supply Chain

Sustainable supply chain management is an integrated management strategy that integrates social, environmental, and economic factors into supply chain operations to promote organizational growth and competitive advantage. Effective manufacturing, inventory, transportation, procurement, and logistics management may lower waste and resource consumption while increasing operational effectiveness and product quality.

Sustainable supply chain techniques may lower production, recycling, manufacturing, shipping, and product design costs, boost profitability via better sales and operational performance, and improve competitiveness in both domestic and foreign markets for industrial firms. Additionally, they can lower environmental pollution by reducing industrial waste, promote the adoption of environmentally friendly materials and manufacturing techniques, and increase organizational value by enhancing product quality and reputation (Alzoubi et al., 2020). Therefore, sustainable supply chain management transcends the conventional objectives of cost and efficiency. It provides a systematic framework for integrating ethical, social, economic, and environmental practices into production and distribution processes. This integration helps establish long-term competitive superiority in operational and marketing endeavors, improves organizational capabilities, and encourages the production of eco-friendly products (Aymen & Gabriel, 2013, p. 53).

3.3. Performance Measurement Criteria of Sustainable Supply Chain

The four primary criteria for evaluating the efficacy of sustainable supply chain management are time, quality, cost, and flexibility. The speed and responsiveness of supply chain operations are indicated by temporal factors, which are particularly important in the early phases of supply chain development. The importance of quality increases as the supply chain develops because it has a direct impact on customer satisfaction, product reliability, and business competitiveness. Cost assesses an organization's capacity to lower operating costs while preserving effectiveness and adding value. Flexibility refers to the supply chain's ability to quickly adjust to changing consumer demands, market volatility, and environmental changes. When taken as a whole, these standards provide a thorough foundation for assessing supply chain operations' sustainability and operational efficacy (Narimissa et al., 2020, p. 4).

3.4. Dimensions of Sustainable Supply Chain

Three essential components of sustainable supply chain management are examined in this study:

3.4.1. Activities with Suppliers

In order to guarantee that purchased goods and services meet sustainability standards, supplier-oriented initiatives include improving suppliers' sustainability practices. This dimension, sometimes referred to as "sustainable sourcing" or "sustainable purchasing," reflects collaborative efforts between suppliers and businesses. The first stage of a sustainable supply chain is purchasing. If buying operations do not incorporate organizational environmental objectives, environmental efforts will not be successful. By using reusable or recyclable packaging materials and promoting sustainable development goals through procurement procedures, sustainable purchasing helps achieve environmental goals (Walker et al., 2012:201). Sustainable purchasing policies, in line with studies on sustainable procurement, encourage businesses to lower greenhouse gas emissions and enhance environmental performance. The term "sustainable purchasing" refers to the practice of making judgments about purchases based on conventional factors like price and performance while also taking social, environmental, and economic factors into account.

3.4.2. Internal Operational Activities

Sustainable practices incorporated into organizational procedures are referred to as internal operational activities. Supplier assessment, sustainability performance tracking, environmental audits, waste minimization, energy efficiency enhancement, staff training initiatives, eco-design techniques, and environmental management systems are some of these activities. Organizational initiatives to incorporate sustainability goals into routine operational tasks are represented by internal sustainable operations. These methods are frequently referred to as "sustainable manufacturing" (Molamohamadi & Ismail, 2013:2). Sustainable manufacturing is the process of using cutting-edge technology and ethical production methods to turn raw materials into finished goods that meet social demands while fostering economic growth and minimizing environmental effects. By using fewer resources and increasing operational effectiveness, companies that implement eco-friendly practices can recoup their expenses. Sustainable manufacturing provides a holistic strategy for product development by harmonizing long-term social, environmental, and economic goals while incorporating ecological considerations throughout the product life cycle (Moldavska & Welo, 2017:745).

3.4.3. Sustainable Logistics and Support Activities

Transport safety, transport costs, automated material handling, environmentally conscious transport selection, and protection of transported goods are the five components that were originally identified as customer-related activities. As a result, rather than working directly with customers, they implement sustainable logistics and facilitate activities. Reliable and sustainable logistics methods that facilitate the delivery of services and the transportation of goods are included in this part of the updated framework. The term "label" has been modified throughout the manuscript to reflect the actual content of the questionnaire.

4. Display and Evaluation of Descriptive Statistics Outcomes of the Primary Research Factors

The data related to the main variables of the study are thoroughly examined and explained in this section. The dependent variable in this study is Marketing Excellence (ME), and the independent variable is Sustainable Supply Chain (SSC). The arithmetic mean, which depicts the central tendency of participants' responses for each item; the standard deviation, which assesses the degree of dispersion and variation of responses around the mean; and the coefficient of variation, which is regarded as a relative and more accurate metric for comparing different items, were among the fundamental statistical measures used for a comprehensive descriptive analysis. The items within each dimension were ranked in ascending order based on their coefficient of variation; the item with the lowest coefficient of variation was ranked first, indicating the highest level of consistency and agreement among respondents.

4.1. Descriptive Statistics of the Sustainable Supply Chain Variable (Independent Variable)

Three aspects make up the sustainable supply chain variable: actions about suppliers, internal operations, and customers. The descriptive statistics for each dimension are shown and explained in the next subsections.

4.1.1. Supplier-Related Activities

The supplier-related activities dimension had an overall arithmetic mean of 3.925, as Table 1 illustrates, showing a high degree of agreement among respondents on the execution of these activities. The coefficients of variation showed variations in the consistency of responses across the items in the dimension, ranging from 16.92% to 36.03%. The second item, "The company operates according to data and information that ensures environmentally friendly production," ranked first because of its minimal coefficient of variation (16.92%). Furthermore, the average and standard deviation were 4.063 and 0.687, respectively. These results indicate a strong consensus and uniformity among participants regarding the company's dependence on data that

endorses environmentally sustainable manufacturing. The fifth point, "The company aims to attain economic advantages via sustainable procurement," ranked last with a standard deviation of 1.362, an arithmetic mean of 3.781, and a coefficient of variation of 36.03%. The considerable coefficient of variation indicates broader discrepancies in participants' evaluations of the financial benefits of sustainable purchasing, despite the mean reflecting a significant consensus. The findings indicate that participants consider supplier-related functions essential for sustainable supply chain management. The gap in the economic benefits of sustainable purchasing underscores the necessity for more accurate performance indicators and enhanced organizational comprehension of its strategic and financial significance.

Table 1. Activities' descriptive statistics with suppliers' aspects

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company considers environmental aspects as a basis for evaluating supplier performance	3.859	0.663	17.19%	2
2	The company operates according to data and information that ensure environmentally friendly production	4.063	0.687	16.92%	1
3	The company focuses on avoiding environmental harm as a fundamental criterion for selecting suppliers	3.984	0.724	18.16%	3
4	The company evaluates the actual need for products before making purchasing decisions	3.938	0.732	18.59%	4
5	The company seeks to achieve economic benefits through sustainable purchasing	3.781	1.362	36.03%	5
	Activities with Suppliers	3.925	0.834	21.38%	

Source: Analysis by the authors using data from SPSS 28.

4.1.2. Internal Operational Activities

Table 2 shows that the overall arithmetic mean of the Internal Operational Activities dimension was 3.891, indicating that respondents agreed on the dimension's constituent parts. The degree of consistency in responses varied across the items, as evidenced by coefficient of variation values ranging from 18.03% to 34.49%. Because of its low coefficient of variation of 18.03%, the fourth item, "The company utilizes production waste for its benefit," received the highest ranking with an arithmetic mean of 3.938 and a standard deviation of 0.710. This suggests that respondents had

generally consistent opinions about the company's use of manufacturing waste. The second item—"The company adopts sustainable internal operational activities to improve its image among customers"—ranked last with a coefficient of variation of 34.49%, an arithmetic mean of 3.734, and a standard deviation of 1.288. This implies that respondents' perspectives on the practice are more diverse. Overall, these findings indicate that participants recognized the importance of internal sustainable operations as an essential component of sustainable supply chain management.

Table 2. **Descriptive statistics for the dimension of internal operations.**

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company efficiently uses raw materials to produce low-cost products	3.766	1.244	33.03%	4
2	The company adopts sustainable internal operational activities to improve its image among customers	3.734	1.288	34.49%	5
3	The company transforms its manufacturing processes into sustainable processes	4.031	0.796	19.75%	2
4	The company utilizes production waste for its benefit	3.938	0.710	18.03%	1
5	The company employs modern production systems during storage operations	3.984	1.266	31.78%	3
	Internal Operational Activities	3.891	1.061	27.42%	

Source: Analysis by the authors using data from SPSS 28.

4.1.3. Sustainable Logistics and Support Activities

Shown in Table 3, the overall arithmetic mean for the 'Sustainable Logistics and Support Activities' dimension was 3.878, showing a high degree of agreement among respondents evaluating the dimension's elements. The company employs automated transportation methods when transferring materials between work locations—ranked first because it had the lowest coefficient of variation (15.68%), with an arithmetic mean of 4.016 and a standard deviation of 0.630. This suggests that respondents' use of automated transportation solutions is highly consistent. However, with a coefficient of variation of 33.82%, an arithmetic mean of 3.734, and a standard deviation of

1.263, the first item, "The company focuses on safety during the transportation and handling of raw materials", ranked fifth. This suggests that respondents' opinions varied quite a little. These results generally support respondents' perceptions that sustainable logistics and support activities are a crucial component of sustainable supply chain strategies.

Table 3. **Activity descriptive statistics with the customer attribute**

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company focuses on safety during transportation and handling of raw materials	3.734	1.263	33.82%	5
2	The company reduces transportation costs without harming its objectives	4.063	1.037	25.53%	4
3	The company employs automated transportation methods when transferring materials between work locations	4.016	0.630	15.68%	1
4	The company selects transportation methods according to environmental decisions focusing on reducing energy consumption	3.797	0.647	17.04%	2
5	The company uses transportation methods that ensure preservation of transported products	3.781	0.654	17.29%	3
	Sustainable Logistics and Support Activities	3.878	0.846	21.87%	

Source: Analysis by the authors using data from SPSS 28.

4.2. Marketing Excellence Variable Descriptive Statistics (Dependent Variable)

Service quality, customer retention, marketing innovation, and distinctive capabilities are the four main components of the marketing excellence variable. In order to evaluate the level of marketing competency attained by the company in question and the consistency of respondents' perceptions, the descriptive statistical results for each dimension—including the arithmetic mean, standard deviation, and coefficient of variation—are described and analyzed in the following sections.

4.2.1. Quality of Service

Table (4) shows that there was a high degree of agreement among the research population regarding the components of the Quality-of-Service dimension, with an

overall arithmetic mean of 3.844. The fifth item, "The company's management emphasizes quality and regards it as a fundamental necessity in its operations and services,and it " had the highest ranking with an arithmetic mean of 3.828 and a standard deviation of 0.680 because it had the lowest coefficient of variation (17.76%). This suggests that respondents' views on the significance of quality as a guiding principle in the business's operations remained remarkably stable. Conversely, the fourth item—"The company can provide services that meet quality standards and satisfy customers"—ranked fifth with a coefficient of variation of 21.32%, an arithmetic mean of 3.875, and a standard deviation of 0.826. This indicates a more diverse range of respondents' perspectives on this issue, despite the fact that the mean score still indicates a high level of agreement. Overall, these findings indicate that respondents see service quality as an important factor in achieving marketing excellence.

Table 4. Quality-of-service dimension descriptive statistics

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company's management provides services using the latest technologies and equipment	3.781	0.723	19.12%	4
2	The company's management focuses on identifying customers' problems and reaching appropriate solutions	3.828	0.703	18.36%	2
3	Employees seek to provide the best services immediately to all customers	3.906	0.729	18.65%	3
4	The company can provide services that meet quality specifications and satisfy customers	3.875	0.826	21.32%	5
5	The company's management focuses on quality and considers it an essential requirement in its operations and services	3.828	0.680	17.76%	1
	Quality of Service	3.844	0.732	19.04%	

Source: Analysis by the authors using data from SPSS 28.

4.2.2. Customer Retention

The Customer Retention dimension's total arithmetic mean, as shown in Table 5, was 3.856, showing a high degree of agreement among respondents on the dimension's elements. With an arithmetic mean of 3.766 and a standard deviation of 0.611, the second item, "The company works to enhance its reputation and build distinguished image in its field of business", was ranked first based on the lowest coefficient of

variation (16.21%). This indicates a high degree of agreement among respondents about the significance of a company's reputation in keeping clients. On the other hand, the fourth item, "The company considers customers as friends and close partners with employees", ranked fifth with a standard deviation of 1.296, an arithmetic mean of 3.859, and a coefficient of variation of 33.57%.

This shows that respondents' opinions about customer relationship techniques vary. Overall, the findings support the notion that, by fostering stronger bonds and loyalty, client retention is a crucial component of marketing success.

Table 5. **Customer retention dimension descriptive statistics**

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company follows pricing policies that attract and retain customers	3.938	0.710	18.03%	2
2	The company works to enhance its reputation and distinguished image in its field of business	3.766	0.611	16.21%	1
3	The company targets reaching customers through market segmentation	3.828	0.747	19.50%	3
4	The company considers customers as friends and close partners with employees	3.859	1.296	33.57%	5
5	The company seeks to build and maintain trust with customers	3.891	1.249	32.10%	4
	Customer Retention	3.856	0.922	23.88%	

Source: Authors' analysis utilizing data from SPSS 28.

4.2.3. Marketing Innovation

The overall arithmetic mean for the Marketing Innovation dimension, as illustrated in Table 6, was 3.875, indicating a significant consensus among participants regarding the dimension's components. With an arithmetic mean of 3.906 and a standard deviation of 0.660, indicating the lowest coefficient of variation at 16.89%, the third item, "The company fosters positive relationships with different community institutions," received the highest ranking. This suggests that most participants agreed with the organization's role in fostering positive external relationships. In contrast, the

second item" The company's services are marked by ongoing innovation and enhancement"—secured the fifth position with a standard deviation of 0.858, an arithmetic mean of 3.797, and a coefficient of variation of 22.59%. The findings indicate that achieving distinction and a competitive edge is believed to be significantly reliant on marketing innovation.

Table 6. The descriptive statistics of the marketing innovation dimension.

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company exchanges knowledge and experience with local and international institutions	4.000	0.797	19.92%	3
2	The company's services are characterized by continuous renewal and development	3.797	0.858	22.59%	5
3	The company adopts positive relationships with different community institutions	3.906	0.660	16.89%	1
4	The company uses innovative promotional messages to advertise its services	3.938	0.774	19.66%	2
5	The company ensures that its services reach all customers in the market quickly and effectively	3.734	0.802	21.47%	4
	Marketing Innovation	3.875	0.778	20.11%	

Source: Analysis by the authors using data from SPSS 28.

4.2.4. Distinctive Capabilities

As indicated in Table (7), the Distinctive Capabilities dimension's total arithmetic mean was 3.919, indicating a high level of agreement among respondents assessing this dimension. With an arithmetic mean of 3.938 and a standard deviation of 0.639, the first item, "The company seeks to achieve customer satisfaction by meeting their needs and expectations", ranked first due to the lowest coefficient of variation (16.24%). This indicates that respondents' opinions on the significance of customer satisfaction are quite consistent. With a coefficient of variation of 30.64%, an arithmetic mean of 3.734, and a standard deviation of 1.144, the third item, "The

company focuses on achieving the value customers seek from its services", ranked fifth. Overall, these findings demonstrate how crucial unique talents are to help businesses attain marketing excellence and competitive dominance.

Table 7. Descriptive data for the dimension of distinctive capabilities

No.	Item	Mean	Standard Deviation	Coefficient of Variation %	Rank
1	The company seeks to achieve customer satisfaction by meeting their needs and expectations	3.938	0.639	16.24%	1
2	The company aims to provide services at the lowest possible costs for customers	3.781	0.678	17.92%	2
3	The company focuses on achieving the value customers seek from its services	3.734	1.144	30.64%	5
4	The company ensures that its services are distinguished among customers compared with competitors	4.063	0.753	18.54%	3
5	The company utilizes its available resources and capabilities to satisfy customer needs and desires	4.078	1.172	28.75%	4
	Distinctive Capabilities	3.919	0.877	22.42%	

Source: Authors' analysis utilizing data from SPSS 28.

The arithmetic means of the descriptive items on the five-point Likert scale varied from about 3.7 to 4.1. Uniform interpretation intervals (1.00–1.80 very low; 1.81–2.60 low; 2.61–3.40 moderate; 3.41–4.20 high; 4.21–5.00 very high) are used to classify these averages as high. However, significant response diversity is indicated by variation coefficients near 36% for some items; as a result, the revised text does not characterize consensus as consistently robust.

4.3. Hypotheses Testing Using Multiple Regression Analysis

Remark on statistical validation: The assessor discovered variations in the provided R2 metrics, t-statistics, p-values, standardized coefficients (β), and standard errors. Tables 8–11 should therefore be replaced with values directly from the original SPSS Model Summary, ANOVA, and Coefficients outputs (including B, SE, Beta, t, Sig., tolerance/VIF, F, adjusted R^2 Durbin–Watson, and pertinent residual/influence

diagnostics) before resubmitting. The current revision does not create or mathematically reconstruct these statistics from partial summary data. A modern strategy used by businesses to strike a balance between social responsibility, environmental preservation, and economic success is sustainable supply chain management. A number of activities pertaining to supplier relationships, internal operating procedures, and customer contacts are included in sustainable supply chain practices. The aspects of marketing excellence, such as client retention, quality of service, marketing innovation, and distinctive capabilities, are expected to predict by these actions. The multiple regression analysis method was used to estimate the predictive effect of the independent variable dimensions (activities with suppliers, internal operational activities, and sustainable logistics and support activities) on the dependent variable dimensions (quality of service, customer retention, marketing innovation, and distinctive capabilities).

4.3.1. The Effect of Sustainable Supply Chain Dimensions on Quality of Service

The results of testing this hypothesis are shown in Table 8. Every independent variable has a positive correlation with the Quality-of-Service dimension, according to the regression coefficients (Beta). Activities involving suppliers had the highest standardized coefficient ($\beta = 0.18$), followed by those involving internal operations ($\beta = 0.15$) and consumers ($\beta = 0.09$). These predictive coefficients are statistically significant, as all significance levels (Sig.) were less than 0.05. Additionally, the model's sustainable supply chain characteristics statistically explained 48% of the variation in service quality, according to the coefficient of determination (R2 = 0.48). The significance of sustainable supply chain methods in raising service quality and boosting organizational performance is supported by this conclusion.

Table 8. Findings from the initial sub-hypothesis test

Independent Variable Dimensions	Beta (β)	Standard Error (SE)	t-value	Sig.
Activities with Suppliers	0.18	0.05	3.60	0.001
Internal Operational Activities	0.15	0.04	3.75	< 0.001
Sustainable Logistics and Support Activities	0.09	0.03	3.00	0.003
Coefficient of Determination (R^2)	0.48			

Source: Analysis by the authors using data from SPSS 28.

4.3.2. The Impact of Sustainable Supply Chain Factors on Customer Loyalty

The regression coefficients illustrating the impact of sustainable supply chain characteristics on customer retention are presented in Table 9. The findings indicate that internal operational activities possess the highest regression coefficient at (β = 0.14), succeeded by supplier-related activities (β = 0.12) and sustainable logistics and support functions (β = 0.09). Given that the significance values were below 0.05, all relationships were deemed statistically significant. independent factors statistically explained 41% of the variance in customer retention, according to the coefficient of determination (R2 = 0.41). This finding shows that improving sustainable supply chain processes is positively correlated with building enduring relationships with customers and boosting customer loyalty.

Table 9. Outcomes of the second sub-hypothesis test

Independent Variable Dimensions	Beta (β)	Standard Error (SE)	t-value	Sig.
Activities with Suppliers	0.12	0.06	2.00	0.025
Internal Operational Activities	0.14	0.05	2.80	0.006
Sustainable Logistics and Support Activities	0.09	0.04	2.25	0.045
Coefficient of Determination (R^2)	0.41			

Source: Analysis by the authors using data from SPSS 28.

4.3.3. The Effect of Sustainable Supply Chain Dimensions on Marketing Innovation

The regression results on the impact of sustainable supply chain factors on marketing innovation are shown in Table 10. The results demonstrate a positive and statistically significant correlation between marketing innovation and every independent factor. Activities involving suppliers (β = 0.17) and consumers (β = 0.13) had lower beta coefficients than internal operational activities (β = 0.19). The statistical significance of these correlations was verified because all significance values were less than 0.05. Sustainable supply chain features accounted for 37% of the variation in marketing innovation, according to the coefficient of determination (R2 = 0.37). This outcome

shows how innovation and the development of fresh marketing tactics are fostered by sustainable practices.

Table 10. Results of the third sub-hypothesis examination

Independent Variable Dimensions	Beta (β)	Standard Error (SE)	t-value	Sig.
Activities with Suppliers	0.17	0.05	2.00	0.048
Internal Operational Activities	0.19	0.04	2.75	0.007
Sustainable Logistics and Support Activities	0.13	0.03	2.67	0.009
Coefficient of Determination (R^2)	0.37			

Source: Analysis by the authors using data from SPSS 28.

4.3.4. The Effect of Sustainable Supply Chain Dimensions on Distinctive Capabilities

In the submitted regression table for distinctive capabilities, supplier-related activities have the highest standardized coefficient (β = 0.20), followed by internal operational activities (β = 0.18) and sustainable logistics and support activities (β = 0.13), with a reported R2 of 0.55. These values are only retained as the originally reported results and must be compared to the original SPSS output because the reviewer discovered differences between the coefficient statistics and model-level R2.

Table 11. Outcomes of the fourth sub-hypothesis test

Independent Variable Dimensions	Beta (β)	Standard Error (SE)	t-value	Sig.
Activities with Suppliers	0.20	0.05	4.00	< 0.001
Internal Operational Activities	0.18	0.04	4.50	< 0.001
Sustainable Logistics and Support Activities	0.13	0.03	4.33	< 0.001
Coefficient of Determination (R^2)	0.55			

Source: Analysis by the authors using data from SPSS 28.

4.4. Summary of Hypothesis Testing Results

Marketing-excellence results and sustainable supply chain characteristics are statistically significantly correlated, according to the four multiple-regression models. Service quality ($R^2 = 0.48$), customer retention ($R^2 = 0.41$), and marketing innovation ($R^2 = 0.37$) were the next highest reported explanatory fraction, after distinctive skills ($R^2 = 0.55$). Although the tiny purposive sample, single-source self-report survey, uniform scale format, and unreported model diagnostics may have inflated these relatively high results, they may also represent real overlap between coordinated supply chain processes and perceived marketing skills. Therefore, they should be understood as explanatory estimates peculiar to the sample that need independent confirmation.

5. Discussion

The descriptive findings suggest that sustainability-oriented practices are visible across supplier management, internal operations, and logistics/support activities in the investigated company. This pattern is broadly consistent with sustainable supply-chain research that links coordinated environmental and operational practices with organizational and competitive outcomes (Ni & Sun, 2019; Alzoubi et al., 2020). The current study applies that reasoning to marketing excellence outcomes, examining service quality, customer retention, marketing innovation, and distinct competencies within a single Iraqi public manufacturing entity.

At the structural level, supplier-related practices were found to be the most important in the frameworks for service quality and unique capabilities, while internal operational procedures were thought to be more important for customer retention and marketing innovation. In theory, this pattern makes sense because streamlined internal processes can foster innovation and responsiveness, whereas dependable and superior suppliers can improve consistent service and resource efficiency. The reviewer discovered mathematical inconsistencies in the provided regression tables, and the reported standardized coefficients are relatively low. As a result, until the initial SPSS results and item-level dataset are reexamined and the regression premises documented, any agreement with or departure from prior research should be considered tentative.

The revised interpretation is purposefully not causal. The limitations in inference strength are due to a cross-sectional, single-organization design, purposive sampling, common-source questionnaire data, and unmet requirements for CR, AVE, factor analysis, HTMT, common-method bias testing, and thorough regression diagnostics. These analyzes require the original dataset at the respondent level, which cannot be accurately reconstructed using summary tables.

6. Conclusions and Recommendations

6.1. Conclusions

The models under investigation exhibit positive correlations between the sustainable supply-chain components and the four marketing-excellence outcomes, with R2 values ranging from 0.37 to 0.55. Since the individual standardized coefficients displayed in the tables are moderate, it is inappropriate to characterize them as robust. Before making definitive statistical conclusions, the reviewer found differences in the β, SE, t, p, and R2 values, which required verifying the inferential results against the original SPSS Model Summary, ANOVA, and Coefficients outputs. Additionally, causal interpretation is prohibited by the cross-sectional design.

6.2. Recommendations

A cross-functional sustainable supply chain committee should be established by senior management within six months in response to the first finding. Representatives from the departments of buying, production, quality, marketing, and environmental management should be on the panel. It should track customer interaction, resource efficiency, supplier compliance, and the four aspects of marketing excellence using a quarterly performance scorecard. The Purchasing Department should implement a systematic supplier-evaluation system that takes into account pricing and product quality in addition to labor practices, environmental compliance, delivery dependability, and continuous improvement plans in order to address the second conclusion. At least once a year, supplier performance should be evaluated, and suppliers who don't live up to the criteria should be given remedial action. The Production and Quality Departments should give priority to cleaner-production efforts, waste recovery, energy-consumption monitoring, preventative maintenance, and staff training in accordance with the third conclusion. Every project should have quantifiable goals, assigned tasks, and quarterly progress reports that are sent to upper management. In response to the fourth conclusion, the marketing department should provide organized channels for client input, correctly convey the social and environmental aspects of the company's products, and include important customers in the creation of new products and packaging. Additionally, by establishing sector-specific guidelines, offering technical training, and introducing incentives for sustainable procurement, cleaner production, resource efficiency, and local product development, the Ministry of Industry and Minerals should support sustainability initiatives in public industrial companies.

Future research should gather data from various responder groups and objective organizational records using bigger probability samples that span several textile and leather industries. It is advised to use mixed-method, longitudinal, and qualitative methods to explain how sustainable supply chain strategies affect marketing results over time. Statistical power analysis, Cronbach's alpha, exploratory or confirmatory

component analysis, convergent and discriminant validity, common-method bias tests, and comprehensive regression diagnostics should all be reported in future studies. The marketing-excellence aspects should be concurrently examined using multivariate regression, MANOVA, or structural equation modeling.

Declarations

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Appendix A: Survey Questionnaire

Please use the following scale to indicate how much you agree or disagree with each statement: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

A. Supplier-related activities

The company views ecological considerations as the basis for evaluating the effectiveness of suppliers.

Data and insights that ensure sustainable manufacturing practices are the foundation of the organization's operations.

When choosing suppliers, the company places a high priority on preventing ecological harm.

The company evaluates actual product demand before making procurement decisions.

The company wants to use eco-friendly procurement to achieve financial benefits.
B. Functions related to internal operations
The company skillfully uses raw materials to produce affordable goods.
The company uses environmentally friendly internal procedures to improve its standing with customers.
The company switches to environmentally friendly production techniques.
The company takes advantage of manufacturing byproducts.
The company's storage procedures make use of modern manufacturing systems.
C. Customer-related activities
When it comes to raw material management and transportation, the company places a high priority on safety.
The company reduces logistical costs without sacrificing its objectives.
Materials are moved between operational sites by the company using automated conveyance systems.
In order to reduce energy consumption, the company selects modes of transportation based on ecological factors.
The company uses transportation methods that ensure the safety of delivered goods.
D. Service quality
The company's management uses state-of-the-art equipment and technologies to provide services.
The company's management places a high priority on identifying customer problems and coming up with appropriate solutions.
Employees work hard to provide each client with the best services possible in a timely manner.
The company has the capacity to provide services that meet client expectations and quality standards.
Quality is given top priority by the company's management, who see it as essential to its operations and services.
E. Retention of clients
The company uses pricing strategies to attract and retain customers.
The company aspires to improve its reputation and respected identity in its sector.
The company uses market segmentation to engage consumers.
Customers are seen by the company as close partners and allies with employees.
The company wants to build and maintain trust with its customers.
F. Innovation in promotion