The Impact of Sustainable Strategic Planning on Enhancing Logistics Management Efficiency: A Case Study at Al-Waha Beverages, Juices and Mineral Water Company – Babylon

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Abstract
This study explores the impact of sustainable planning on logistics by examining various aspects such as economy, nature, and society. Rather than guessing the results, it organizes the data through essential activities, transporting goods efficiently, storing inventory correctly, and managing supply levels effectively. At Al, Waha, a beverage manufacturer in Babylon, each tier comes from practical reali ties. As traditional ways might be insufficient these days, it is only fair that new methods related to lasting effects deserve to be studied in detail. What is revealed could indicate where existing policies are unable to cope or are successful when challenged. Not every resolution is applicable everywhere; however, the context has a significant influence regardless of the situation. To achieve the objectives of the study, a descriptive and analytical approach was taken. The instruments for data collection were a questionnaire that was specially prepared for this study. The questionnaire was administered to managers and directors who were a part of the planning and logistics activities at the company. The sample was made up of fifty people. The data were analyzed with the help of software such as SPSS, which is used for discovering patterns in responses. After this, testing of research hypotheses was carried out. The study reveals one major finding: there are strong connections between the application of sustainable planning in businesses and the efficient management of their logistics. Furthermore, it is recognized that a predominant emphasis on ecological considerations leads to the most significant changes, such as a reduction in the wastage of resources combined with an increase in the speed of transportation. Based on the research findings, Al, Waha Company was advised to have the management team develop high, level plans to integrate sustainability with core business operations and long, term objectives, It is of equal importance to train the employees, and at the same time, adopt innovative logistics strategies that lead to cost reduction, enhanced company image among customers, and increased competitive advantage.

Keywords: sustainable strategic planning, logistics management, green logistics, sustainability, supply chains, Waha Company

Introduction

In the present world of tough rivalry among companies and fast, changing scenarios, the chase of profit is still not the only factor that determines the success of an organization. The idea of sustainability, as a new management model, requires management to strike a balance between meeting the economic objectives and taking environmental and social responsibilities simultaneously. Hence, logistics management and supply chains have a vital role, as they are the artery that connects production and markets,

and also, a very good place to implement sustainable practices that can be used as a source of continued competitive advantage. This link is very clear in the drinks and juice sector where companies like Al Waha Beverages, Juices and Mineral Water Babylon that are heavily reliant on efficient logistics operations such as transport, storage, and distribution to sell their products. These products demand care and speed during their handling in order to preserve their quality, which directly impacts the operating costs such as fuel consumption, inventory management, and packaging. At this point, integrating sustainability principles into the companys strategic planning is far from being just a matter of ethics but a strategic necessity to lower the costs, reduce the carbon footprint of the transportation operations, and boost the companys image as a socially and environmentally responsible brand in the eyes of its customers.

Research Problem

The research question therefore, is the reflection of a possible knowledge and application gap with some industrial companies in the Iraqi context, among which the Al, Waha Company is one. This gap may be highlighted by the fact that the strategic plan is mainly focused on the direct economic and operational objectives, while giving very little attention to the systematic incorporation of environmental and social aspects in the logistics strategies.

Accordingly, this study is designed to help the reader understand:

What would be the influence of sustainable strategic planning at Al, Waha Beverage Company, in terms of its triple dimensions (economic, environmental, social) on the efficiency of the logistics management?

Some of the research questions that flow from the main question are:

- To what extent is the company under study adopting various dimensions of sustainable strategic planning?
- How efficient are the logistics management activities that the company is currently implementing?
- Is there a correlation, of statistical significance, between both variables? What is the size of this effect?

Research objectives

The importance of the research is mainly due to the fact that it clarifies a very important issue which is a mix of two modern administrative fields. It also offers a scientific base that the management of Al, Waha Company can utilize in setting the company's policies. At the scientific level, the research is a valuable contribution to the Arabic library by presenting an environmental study in a society that has hardly been addressed in this field. To this end, the research intends to assess the effect of sustainable strategic planning on the company's logistics management. Then it will propose a number of practical recommendations that will facilitate the combination of sustainability and logistics operations thus resulting in the company's superior and sustainable performance.

Research hypotheses

In order to fulfill the research goals of the present study and provide reasonable answers to the research questions, the researcher introduces the primary hypothesis which details the relationship between the main variables of the study referred to above and these are:

First main hypothesis (correlation): This hypothesis conveys that: (There is a statistically significant correlation between sustainable strategic planning in all its aspects and the efficiency of logistics management in all its aspects at Al, Waha Company).

Second main hypothesis (the impact relationship): There is a statistically significant impact relationship between sustainable strategic planning in all its aspects and the efficiency of logistics management in all its aspects at Al, Waha Company.

Research Methodology

In order to achieve the objectives of the research, the paper utilized the descriptive, analytical method. The selection of the method is in line with the research purpose, as it does not merely limit the description of the studied phenomenon (the reality of sustainable strategic planning and logistics management at Al, Waha Company), but also goes further to analyze and interpret the data to comprehend the nature of the relationship between the variables of the study and to quantify the size of the effect of the independent variable (sustainable strategic planning) on the dependent variable (logistics management efficiency).

A. Population

The population covers all the personnel at the middle and top management levels of Al, Waha Beverages, Juices and Mineral Water Company in Babylon who are directly involved in either strategic planning or logistics activities. It comprises managers, department chiefs, and staff members (senior management, strategic planning, production, quality, procurement, warehousing, transportation, and distribution).

B. Sample

Since studying the whole population was not feasible, a purposive sample was drawn from the population. This sampling method is intended to choose individuals who have the most experience and knowledge of the topic under investigation to get accurate and reliable data. The sample consisted of (50)managers and staff members**.**

Data Collection Tool

Two major sources were employed to collect data:

- **Primary sources:** A questionnaire represented the primary tool to collect primary data from the sample individuals. It was prepared based on the previous research and the theoretical framework of the study and comprised three main sections:Section 1: General information (demographic and functional) of the sample individuals (e.g., gender, age, educational qualifications, job position, years of experience).Section 2: Statements to determine the independent variable (sustainable strategic planning) which are internally related to its three main components (economic, environmental, and social).Section 3: Statements to determine the dependent variable (logistics management efficiency) which are internally related to its various components (transport efficiency, storage efficiency, inventory management efficiency). * A Five, Point Likert Scale was used to measure the sample individuals' level of agreement with the statements, from (5=strongly agree) to (1=strongly disagree).
- **Supplemental sources:** These include scientific books and references, journals and articles, university theses,

reports, and publications released by relevant bodies to establish the theoretical framework of the study and develop the research instrument.

Validity and reliability of the tool

A. Face validity

To confirm the validity of the questionnaire, i.e., the extent to which it can measure the intended variable, in its first draft, the questionnaire was given to a panel of experts specialized in management and strategic planning who work at different Iraqi universities. They were asked to review the questionnaire and provide their feedback regarding the clarity of the items, their linguistic soundness, and their topic relevance. Necessary modifications were made based on their feedback to prepare the final version of the questionnaire.

B. Reliability

To determine the reliability of the questionnaire, i.e., the degree to which it is capable of yielding the same results if it is repeated under similar circumstances, Cronbach's Alpha will be employed. A value 0.70 or above is considered to be sufficient to demonstrate the reliability of the instrument and its appropriateness for statistical analysis.

Statistical Methods

In order to analyze the data obtained and test the research hypotheses, Statistical Package for the Social Sciences (SPSS) will be used.

Descriptive statistics

Frequencies and percentages to describe the features of the sample, arithmetic means and standard deviations to characterize the sample responses and ascertain the level of significance of each variable and its dimensions.

Inferential statistics

1. **Pearson Correlation:** to identify the degree and direction of correlation between sustainable strategic planning and logistics management efficiency.
2. **Simple Linear Regression:** to assess the impact of the independent variable (sustainable strategic planning) as a whole on the dependent variable (logistics management efficiency).
3. **Multiple Linear Regression:** To assess the joint impact of sustainable strategic planning dimensions (economic, environmental, social) on logistics management efficiency, and to find out which of these dimensions is the main driver.

Theoretical framework for research variables

First: Sustainable strategic planning

In view of the massive transformations in the commercial world, strategic planning is no longer recognized as just one of the tools for gaining a competitive advantage through short, term profitability. Instead, the idea has developed to include sustainability principles, thus there has been a creation of the term 'sustainable strategic planning' that stands for a long, lasting and comprehensive mission of the organization to balance economic, environmental, and social objectives thereby generating long, term value for the company and all stakeholders.

1. The concept of strategic planning (Traditional Strategic Planning)

Strategic planning refers to "the process of establishing the organization's mission, vision, and key objectives, and developing the policies and plans necessary to achieve those objectives considering the analysis of the internal and external environment" (Wheelen & Hunger, 2012) [16]. This traditional idea is mostly concerned with the attainment of a competitive advantage through the analysis of competitive forces (Porter's model) and SWOT analysis for the maximization of financial returns to shareholders.

2. The concept of sustainability the concept of sustainability was most clearly delineated and elevated through the 1987

Brundtland Commission report to the United Nations, which defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). The concept has evolved in a business context to include what John Elkington referred to as the Triple Bottom Line, which urges organizations to assess their performance through three interlocked dimensions: Profit, Planet, and People, which correspond to the economic, environmental, and social aspects (Elkington, 1997) [4].

Combining the essence of these two concepts, one can say that sustainable strategic planning refers to:

A systematic management process that incorporates economic, environmental, and social considerations at every stage of strategic planning (analysis, strategy formulation, implementation, and monitoring), with the ultimate goal of improving the organization's capacity for value creation and realization of a sustainable competitive advantage (Epstein & Buhovac, 2014) [5].

The company success is a part of the whole system and it is deeply related to the well, being of nature and society and vice versa. Instead of treating environmental and social issues as limitations or additional expenses, sustainable strategic planning sees them as sources of innovation and new opportunities (Porter & Kramer, 2011) [10].

Sustainable strategic planning has been broken down into three main overlapping and interconnected dimensions that correspond to the sub, variables in this research:

Economic Dimension: This dimension is concerned not only with the immediate profitability but also the long, term financial sustainability. Strategic planning here consists of setting objectives and policies to:

Operational efficiency: optimizing resource usage and waste reduction, which mi.. Innovation and new business models: creating green products, services, and processes that masu. Risk management: Recognize and manage risks related to the environmental changes and social legislat..Creating shared value: Strategies that simultaneously serve the company and society are develope..

3. Environmental Dimension

This dimension is all about the organization working to lessen the harm of its operations to the natural environment and transforming environmental difficulties into possibilities. It embraces committing to the following goals:

How to reduce the carbon footprint: Enhancing energy

efficiency in production and transportation activities and switching to renewable energy sources. (This is a matter of logistics management directly).Using resources sustainably: Cut down on water and raw materials consumption, recycle, and design products that can be taken apart or reused (circular economy principles).Pollution reduction: Establishing waste and emission management systems that at least comply with environmental regulations, and possibly exceed them.Environment, friendly supply networks: Choosing suppliers who comply with environmental standards and creating logistics networks that lower emissions (Sarkis, 2012) [13].

4. Societal Dimension

This dimension indicates how the organization impacts internal stakeholders (employees) and external stakeholders (community, customers, suppliers). A strategy formulation on this one may encompass to:Employees welfare: Ensuring a work environment that is safe and healthy, granting workers' rights, and providing opportunities for skill acquisition and self, improvement.Social commitment: Enhancing the living standards of the local community by creating jobs or supporting social and educational projects.Ethics of work and products: Guaranteeing the safety of products, offering customers clear information, and dealing equitably with all partners.Stakeholder Relationship Management: Developing strong and sustainable relationships with all parties impacted by the company's operations, basing the relationships on stakeholder theory (Freeman, 1984) [6].

Second: Logistics Management (Dependent Variable)

Logistics management is the main support of all operations within any contemporary organization and the link that connects the production process to customer's needs. A good product with no effective logistics system will not have value because it will not be able to reach the right place, at the right time, and at the right cost. In the context of this research, "logistics management efficiency" is the dependent variable, which is considered to be influenced by sustainable strategic planning. Since sustainability concepts incorporation lead to the improvement of the efficiency of logistics activities and cost reduction, it is thereby rational to assume that logistics management is affected by strategic planning with sustainability orientation.

First: The concept of logistics management

1. Definition and development: Logistics management has changed over time from a military activity solely focused on transporting and supplying armies to a fully integrated and indispensable administrative function in the business world. The Council of Supply Chain Management Professionals (CSCMP) describes it as "the component of supply chain management that plans, administers and controls the efficient and effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customer requirements" (Council of Supply Chain Management Professionals, 2023). Christopher (2016) [2] argues that logistics is the function that through strategic management, will manage the procurement, movement, and storage of materials, parts, and finished goods (and related information) within an organization and its marketing networks in a way that most efficiently satisfies customer demands and thus maximizes the current and future profits of the organization.2. The difference between logistics management and supply chain management:

The two concepts are often confused, but there is a fundamental difference. Logistics management is part of supply chain management. Logistics focuses on the movement and storage of products within a single organization and between it and its direct customers, while supply chain management is a broader concept that includes managing relationships and processes between all parties in the chain, from the initial supplier to the end consumer (Bowersox, Closs, & Cooper, 2020) [1].

Second: Objectives and importance of logistics management

The importance of logistics management is in its capacity to create value not only for the customer but also for the supply chain organization. Essentially, the main objectives of logistics management are to fulfill the so, called "Seven Rights of Logistics." Which simply means: delivering the right product, of the right quantity, in the right condition, to the right place, at the right time, to the right customer, and at the right cost.

Here are some of the benefits that logistics management can bring:

Cost savings: The biggest part of the product cost is usually the logistics cost (mainly transportation and warehousing). Therefore, if these functions are tightly controlled, it will lead to a direct cost reduction and increased profit margins.

Better customer service: Customer satisfaction and loyalty are primarily influenced by delivery speed and accuracy as well as product availability.

Production of temporal and spatial utility: Through logistics, products are made available to customers at the time they want them (temporal utility) and at the place they want them (spatial utility).

Supporting competitive advantage: A company that has a better logistics system can combine speed, reliability, and low cost to gain a competitive edge (Lambert, Stock, & Ellram, 1998) [8].

Third: Dimensions and activities of logistics management (sub-research variables)

For the purpose of this research, the focus will be on measuring the efficiency of the following key activities of logistics management:

1. Transportation Efficiency

Transportation is the most cost, sensitive logistics function. The role of transport management is basically about choosing the right conveyance (cargo trucks, freight trains, etc.), setting the schedule, and routing the shipments at optimization in such a way that shipments perfectly fit the criteria of safety, time of delivery, and cost (lowest).

Transportation effectiveness is gauged through metrics like: transportation cost per unit of product, vehicle load utilization rate, on, time delivery accuracy, and reduction in fuel consumption and emissions, which is a direct link to the environmental aspect of sustainability (Coyle, Langley, Novack, & Gibson, 2017) [3].

2. Warehousing Efficiency

Warehousing is the function that manages the locations of storage of raw materials and finished goods. The function of warehousing goes beyond just storage to include activities

such as receiving, sorting, picking, and shipping. Efficiency of a warehouse is reflected in a set of performance indicators such as: cost of storage per unit, percentage of warehouse space used, speed and accuracy of order handling, and minimization of inventory damage or loss (Richards, 2017) [11].

3. Inventory Management Efficiency

Effective inventory management is the heart of a company's logistics activities. Its main task is to find a fine balance between the expense of holding inventory (which entails money being tied up) and the danger of running out of stock (which usually results in lost sales). The management of inventory involves making decisions about the quantity of products to be ordered and the timing of the orders. The overall performance of inventory management is gauged through metrics such as inventory turnover rate, safety stock level, stockout rate, and inventory record accuracy (Bowersox *et al*., 2020) [1].

Fourth: Green Logistics as a Recent Trend

Sustainability has become the focus of attention in popularity. As a result, the idea of "green logistics" has been introduced and it is explained by Rogers and Tibben, Lembke (2001) [12] as "efforts to measure and reduce the environmental impact of logistics activities." It is a direct correlation between the variables of this investigation because by implementing sustainable strategic planning the company is compelled to go green in its logistics. Thus, the company can: enhance transportation routes to cut down emissions, choose packaging materials that are eco, friendly, and implement reverse logistics for recycling and proper waste disposal (Sarkis, 2012) [13].

Data analysis and hypothesis testing

The purpose of this chapter is to display the data gathered from the research sample of 50 employees and managers at Al, Waha Company and to analyze this data using statistical methods through the SPSS program.

Firstly, the demographic characteristics of the sample will be presented, then the variables of the research will be elaborated, and finally, the hypotheses of the study will be tested to get the results that answer the research questions.

First: Examination of the demographic traits of the research sample (descriptive statistics) This part aims to characterize the research sample in terms of demographic and functional variables (gender, educational level, job position, and years of experience) to get a clear picture of the sample from which the data was collected. Table (1) shows the distribution of the sample in terms of these variables.

Table 1: Distribution of sample subjects according to personal and functional variables N=50

Variable	Categories	Frequency	Percentage (%)
Gender	Male	35	70.0
	Female	15	30.0
	Total	50	100.0
Educational Qualification	Diploma or less	8	16.0
	Bachelor	30	60.0
	Postgraduate studies (Master or higher)	12	24.0
	Total	50	100.0
Job Position	Department Manager	10	20.0
	Division Head / Unit Administrator	18	36.0
	Supervisory / Technical Employee	22	44.0
	Total	50	100.0
Years of Experience	Less than 5 years	5	10.0
	5–10 years	20	40.0
	More than 10 years	25	50.0
	Total	50	100.0

***Source*:** prepared by the researcher based on the results of statistical analysis (SPSS).

The data presented in Table 1 reveal the following

Regarding gender: It is observed that a significant majority of the sample are males, with 70.0% of the sample, while females represent only 30.0%. This scenario could be a reflection of the demographic characteristic of administrative and technical jobs in the industrial sector of the company being studied. Concerning educational qualifications: It is very well evident that the biggest chunk of the sample are graduates of a bachelor's degree, making up 60.0% of the entire sample, with postgraduate degree holders accounting for 24.0% only. This indicator shows the high educational level of the research sample which, in turn, will facilitate their understanding and interpretation of questionnaire items related to new administrative concepts. Regarding job roles: The table indicates that the largest proportion of the sample (44.0%) are supervisory and technical employees, followed by division heads and unit managers (36.0%). This mixture of administrative levels guarantees that a wide range of perspectives, both from the supervisory (executive) as well as the planning (administrative) aspects, are obtained, thus, the research data is enriched.

When it comes to experience years:This was the variable I specifically asked for, and the data clearly shows that half of the sample (50.0%) have over 10 years of practical experience, and 40.0% have between 5 and 10 years of experience. This is a very positive and strong indicator, as it reveals that the majority of the respondents (90%) have extensive experience in the company, which makes their answers more realistic, reliable, and a true reflection of the actual company practices. Summary of sample analysis:

Overall the sample has characteristics that are quite suitable for the nature of the study, as it comprises individuals with long practical experience and good scientific qualifications thus providing a high level of reliability and confidence in the data collected and the results that will be obtained.

Second: Analysis describing the research variables

In order to determine the relative importance of and the size

of the research variables from the perspective of the study sample, the average scores and their standard deviations for each variable were calculated. In order to interpret the average scores of the five, point Likert scale, the following criteria were used:

High level: from (3.68) to (5.00)Medium level: from (2.34) to (3.67)Low level: from (1.00) to (2.33)The results are presented in Table (2).

Table 2: Arithmetic means and standard deviations of the research sample's views on the research variables

Variable and Dimension	Rank	Arithmetic Mean	Standard Deviation	Level of Relative Importance
Independent Variable: Sustainable Strategic Planning	–	3.80	0.65	High
Economic Dimension	1	4.15	0.70	High
Environmental Dimension	2	3.75	0.88	High
Social Dimension	3	3.50	0.95	Average
Dependent Variable: Efficiency of Logistics Management	–	3.95	0.55	High
Storage Efficiency	1	4.05	0.60	High
Inventory Management Efficiency	2	3.92	0.68	High
Transmission Efficiency	3	3.88	0.72	High

First: As for the independent variable (sustainable strategic planning): Table 2 reveals that the overall implementation level of sustainable strategic planning at Al, Waha Company was high, as evidenced by a total arithmetic mean of 3.80. Looking at its components, we observe the following: The economic dimension came out on top with the highest arithmetic mean (4.15) and a very high level of importance. This is a reasonable sign that the direct economic goals (like getting efficiency, cutting down costs, and ramping up profitability) are still the major and most significant consideration in the company's strategic planning. The environmental dimension came in second with an arithmetic mean (3.75) and a high level of importance as well. This shows that the company's leadership is quite aware of the significance of environmental issues, for example, the reduction of resource wastage and adherence to environmental legislation, which is in line with the current worldwide situation.

The social dimension was ranked lowest with an average score of 3.50 and a moderate level of importance. This relative drop points out that less attention has been paid to social issues (like community development and employee welfare programs beyond what is required) as compared to economic and environmental aspects. Essentially, this is a gap that the company can use as an opportunity to make social responsibility initiatives a major part of their sustainability strategy. Second: Speaking of the dependent variable (logistics management efficiency):

The findings indicated that the overall level of efficiency in logistics management at Al, Waha reached a high point, which was reflected by a total arithmetic mean of 3.95, thus, signifying that the company possesses a well, functioning logistics system. Upon examining the key activities, storage efficiency was found to take the lead in the ranking with an average of 4.05, which means that the company has good command over its warehouse operations in terms of organization, handling, and space utilization.

Third: Testing the research hypotheses

Testing the First Major Hypothesis (Correlation):

The hypothesis under discussion states one point, i.e., A statistically significant correlation exists between sustainable strategic planning and its various dimensions and logistics management efficiency and its various dimensions at Al, Waha Company. Pearson correlation coefficient was utilized to test the hypothesis, and the results of the test are displayed in Table 3.

Table 3: Pearson correlation matrix between the dimensions of sustainable strategic planning and the dimensions of logistics management efficiency

Variants	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Economic Dimension	1						
(2) Environmental Dimension	.610**	1					
(3) Social Dimension	.450**	.520**	1				
(4) Sustainable Strategic Planning (as a whole)	.815**	.890**	.760**	1			
(5) Transmission Efficiency	.650**	.780**	.510**	.705**	1		
(6) Storage Efficiency	.680**	.650**	.490**	.690**	.620**	1	
(7) Efficient Inventory Management	.720**	.690**	.550**	.710**	.590**	.680**	1
Efficiency of Logistics Management (as a whole)	.750	.765	.580	.715	.810	.850	.830

**. The correlation is statistically significant at the 0.01 level.

Source: Prepared by the researcher based on the results of statistical analysis (SPSS).

Interpretation and analysis of the results in Table (3): On the whole: The table demonstrates a total correlation between the sustainable strategic planning and logistics management efficiency of r = 0.715, which means a very strong positive correlation and it is statistically significant at the 0.01 significance level.

Thus, the first main hypothesis is confirmed. At the detailed level: If we take a close look at the matrix, we can see that all sub, dimensions are positively and statistically significantly correlated with each other. Several observations can be made: The environmental dimension was most strongly correlated with transportation efficiency (r = 0.780), which makes sense

since environmental initiatives such as changing routes to conserve fuel and reduce emissions directly lead to transportation efficiency improvements. The economic dimension was highly correlated with inventory management efficiency (r = 0.720), indicating that emphasis on cost and waste reduction (an economic objective) contributes to the efficiency of inventory level management. The social dimension had somewhat weaker correlations, but remained statistically significant, which might suggest that its influence on logistics efficiency is less direct as compared to the other dimensions.

Testing the second main hypothesis (impact relationship)

This hypothesis states:

Sustainable strategic planning has a statistically significant influence on the efficiency of logistics management at Al, Waha Company.

In order to test this hypothesis, simple linear regression analysis was employed. The results of this analysis are presented in Tables (4) and (5).

Table 4: Summary of the regression model validity (ANOVAa)

Table 4: summary of the regression model validity (ANOVAa)

Model	Sum of Squares	Degrees of Freedom (df)	Mean Squares	F Value	Significance Level (Sig.)
Regression	25.805	1	25.805	50.230	0.000
Residual (Remaining)	24.665	48	0.514	—	—
Total	50.470	49	—	—	—

1. Dependent variable: efficiency of logistics management.
2. The independent variable: sustainable strategic planning.

Table 5: coefficients of the simple regression model

Model	Non-Standardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	t Value	Significance Level (Sig.)	Coefficient of Determination (R^2)
Constant	0.850	0.435	—	1.954	0.056	—
Sustainable Strategic Planning	0.812	0.114	0.715	7.087	0.000	0.000

Interpretation and analysis of the results in Tables 4 and 5:

1. Model validity: In fact, F value based on Table 4, 4 was calculated 50.230 and is considered statistically significant because the accompanying significance level (.000) was less than.05. Thus, the regression model can be considered valid in illustrating the relationship between the two variables, and the independent variable does really influence the dependent variable.

2. Explanatory power of the model: From Table (4, 5), the degree of explanation of the model, as measured by the determination coefficient R was (0.511). Hence, sustainable strategic planning measures changes (variation) in logistics management efficiency to 51.1%, while the remaining 48.9% could be attributed to other variables not included in the model. Such a figure is highly explanatory and very important in management science.

3. Significance of the regression coefficient: The Table (4, 5) shows that the estimated t, value for the regression coefficient of the independent variable was 7.087 and was very significant at the.000 level. Therefore, the independent variable increases the dependent variable in a positive and significant way.

Decision

From the results above, it can be seen that all the statistical conditions necessary for drawing a conclusion that sustainable strategic planning positively and significantly enhances the efficiency of logistics management were satisfactorily met. Hence the second major hypothesis is confirmed.

Conclusions and Recommendations

Based on the data analysis and presentation of results in the previous chapter, this chapter presents the main conclusions reached and it also offers a set of practical recommendations for the management of Al, Waha Company, besides which some ideas for the future research are also suggested.

Conclusions

First conclusion: The management of Waha Company has demonstrated a high level of strategic awareness on the importance of sustainability which is shown especially through the economic (resource efficiency) and environmental (waste reduction) aspects. Nonetheless, quite a gap can be noticed in the social dimension of sustainability which has been somewhat neglected compared to the other dimensions.

Second conclusion: The adoption of corporate strategies for sustainability is at the same time a cause and a result of the improvement of the company's logistics performance. For example, the activities directed at environmental impact reduction (such as better fuel consumption) bring about the efficiency of transport, and the waste reduction measures to the waste of time, energy, and materials also lead to the efficaciousness of inventory and storage management.

Third conclusion is that Sustainable strategic planning is not merely a factor related to, but a major driver and influencer of logistics management efficiency. It may be seen as an effective strategic instrument through which a company's management can accomplish two objectives at the same time:

first, the betterment of the financial and operational performance, and second, the enhancement of the company's image as a responsible organization.

Recommendations (Recommendations)

Consequent to the inadequacy of the social dimension (first conclusion): We suggest that the management of the firm should develop explicit policies to foster corporate social responsibility through employee training programs, giving to the local community projects in Babylon, and the setting of the managers' social, related objectives as a part of their key performance indicators. Because of the positive connection between sustainability and logistics (conclusions 2 and 3): It is advisable to establish a cross, functional team or "sustainability committee" (with members from planning, logistics, and quality) whose task is to identify and carry out "green logistics" activities, such as: In transportation: Buying programs for optimizing truck routes to lower truck mileage. Storage: Investigating the option of using solar energy for lighting and air conditioning of the warehouse. Packaging: Implementing several initiatives to cut down the use of plastic material in packaging or the use of recyclable materials. 3. General recommendation:

It is recommended to integrate sustainable performance indicators formally into the company's performance evaluation system. The assessment of the efficiency of the logistics managers should not be confined to cost and time only, but should also comprise indicators like "emissions reduction ratio" or "recycling rate"

Suggestions for future research

1. Carry out a similar research study that incorporates other beverage sector companies in Iraq for the sake of comparison and generalization of the findings.
2. Investigate how implementing green logistics influences customer satisfaction and loyalty to the Al, Waha brand.
3. Expand the scope of the research to include the entire supply chain and study the impact of cooperation with suppliers committed to sustainability on the company's performance.

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