

The Impact of Reverse Logistics Capabilities on Marketing Vigilance: An analytical study of the opinions of a sample of workers in the soft drinks factory in Babylon

Atheer Abdul Amir Hassouni AL-Maliki

Janan Ghazi Abdoun Al-Jumaili

Al-Qadisiyah University, College of Administration and Economics

Corresponding Author : Janan Ghazi Abdoun Al-Jumaili

Abstract : The current study aimed to reveal the nature of the role of reverse logistics capabilities represented in (logistics information management, closed-loop capacity, logistics information integration, coordination ability, organizational motivation, and matching ability) in marketing vigilance in its dimensions (environmental survey, proactive information review, earned value, mental image, and marketing competitive intelligence), as study tries to address a realistic problem reflected in bridging the knowledge gap between reverse logistics capabilities and marketing vigilance among workers In the soft drinks laboratory in Babylon, where the researcher distributed (275) questionnaire forms randomly to a sample of workers in the soft drinks laboratory in Babylon, and the number of forms valid for analysis (235), and was analyzed using the advanced statistical program (SPSS). V.28 & AMOS. V.28), and the current study is a pioneer in its variables, as it deals with important variables that will highlight the importance of reverse logistics capabilities in improving marketing vigilance, study has summarized a set of conclusions, the most prominent of which is that the research laboratory is keen to use written procedures and instructions to monitor and control the return process, which enhances its capabilities to share information about returned products between departments.

Keywords: reverse logistics capabilities, marketing vigilance.

Introduction: Marketing vigilance is one of the main factors that determine the success of companies in competitive markets, as it enables companies to analyze the data available to them, understand customer needs and desires, identify current and future market trends, identify competitors and competitive analysis, and develop appropriate marketing strategies to achieve the best results. In addition, marketing vigilance allows companies to maintain constant contact with customers, manage relationships with them, provide the right service at the right time, respond to complaints and problems effectively, thus improving the satisfaction of increased brand loyalty.

When companies are market-aware, they can adapt to rapid market changes, continuously improve processes, services and products, and succeed in competitive markets. Therefore, companies must pay attention to marketing vigilance and develop effective and innovative marketing strategies to succeed in the markets.

Reverse logistics capabilities are also of great importance in increasing efficiency and improving corporate operations, and they directly affect the quality of products and services provided to customers. When a company faces problems with production, distribution or services, the ability to manage these processes effectively and quickly can be key to retaining customers and succeeding in competitive markets. On the other hand, reverse logistics capabilities are also an important factor in increasing customer satisfaction and enhancing brand loyalty. This is done by providing excellent customer service, managing complaints and problems quickly and efficiently, and optimizing internal processes to achieve better performance.

When reverse logistics capabilities are improved, companies can improve marketing vigilance and succeed in competitive markets. These factors are very important in today's business world, where companies face significant challenges in the field of logistics, service management and customers. Therefore, companies must improve their capabilities in these areas to achieve success and continuity.

Based on the foregoing, the objective of the current study can be achieved by reviewing the variables of the study on the basis of four main sections, the first section includes the scientific methodology of the study, the second section the theoretical side of the study, and the third section dealt with the practical side of the study, the fourth section was devoted to the statement of conclusions and recommendations.

PART ONE: THE SCIENTIFIC METHODOLOGY OF STUDY

First: The problem of study

Marketing vigilance is one of the essential aspects of any company's success in the current competitive market, and it relies heavily on the ability to deal with problems and challenges facing the marketing and supply process. In this

sense, the importance of reverse logistics capabilities is centred on the company's ability to deal with problems it faces in the supply and marketing process and to improve the quality of services it provides to customers.

In this context, identifying the factors that affect reverse logistics capabilities and marketing vigilance, analyzing the relationships between these factors and studying reverse logistics capabilities in these relationships is very important, as the reflection of the rapid developments and changes witnessed by the industrial environment on the need to introduce the concept of logistics in all its fields, especially supply chain activities to eliminate or reduce waste that would hinder the production or service process, The nature of organizations requires their departments to use reverse logistics capabilities in their internal operations in order to ensure the reduction of waste in the energies and efforts of workers, and from this point of view the main study problem emerges, which can be reflected in the question (What is the extent of the laboratory's interest in the research of reverse logistics capabilities and marketing vigilance?).

Therefore, in order to answer this question, it is necessary to prepare for it by explaining the nature of a set of important questions, namely:

- 1) What is the level of adoption of the research laboratory for the activities of reverse logistics capabilities represented in (logistics information management, closed group capacity, logistics information integration, coordination capacity, organizational motivation, and matching ability)?
- 2) What level of marketing vigilance can business organizations have?
- 3) What are the philosophical and conceptual underpinnings through which marketing vigilance can be developed through reverse logistics capabilities?

Second: Objectives of study

The main objective of identifying the problem and importance of the study stands behind a set of important goals that the study seeks to meet and achieve, which can be reflected as follows:

- 1) Identify the relationship between reverse logistics capabilities represented in (logistics information management, closed group capacity, logistics information integration, coordination capacity, organizational motivation, and matching ability), marketing vigilance (environmental survey, proactive information review, earned value, mental image, and competitive intelligence marketing).
- 2) Identify the impact of (logistics information management, closed group capacity, logistics information integration, coordination capacity, organizational motivation, and matching ability) on marketing vigilance, and determine what kind of impact this impact.
- 3) Identify the extent to which reverse and representative logistics capacity activities (logistics information management, closed group capability, logistics information integration, coordination capacity, organizational motivation, and matching ability) contribute to achieving marketing vigilance through strategic service recovery.

Third: The importance of study

Reverse logistics capabilities can be seen as a bridge to improve marketing vigilance. Just as reverse logistics capabilities focus on the processes of returning and recycling goods and materials, marketing vigilance looks at the customer experience and how it is managed, both aspects are important to the success of any business, but reverse logistics capabilities are more important, as it represents the practice of proactively anticipating customer needs and providing solutions that exceed their expectations. As well as a way to build customer loyalty and satisfaction, while maintaining the flow of goods and materials gracefully, without reverse logistics capabilities it is difficult for the organization to ensure that its customers have a positive experience.

Fourth: The hypothetical plan of study

After explaining the problem, importance and objectives of the study, a hypothetical chart can be built that shows the relationship between the variables involved in the analysis of the nature and type of relationship, and therefore these variables were as follows:

1. **Independent variables:** The inclusion of reverse logistics capabilities, measured based on six dimensions (logistics information management, closed group capacity, logistics information integration, coordination capacity, organizational motivation, and matching ability), by adopting a scale (Najafizadeh & Kazemi, 2019; Namweseza, 2021).
2. **Dependent variable:** It was represented in marketing vigilance, and it was measured based on five dimensions represented by (environmental survey, proactive information review, earned value, mental image, and competitive intelligence marketing) by adopting a scale (Hassan & Dawood, 2020), as in Figure (1)

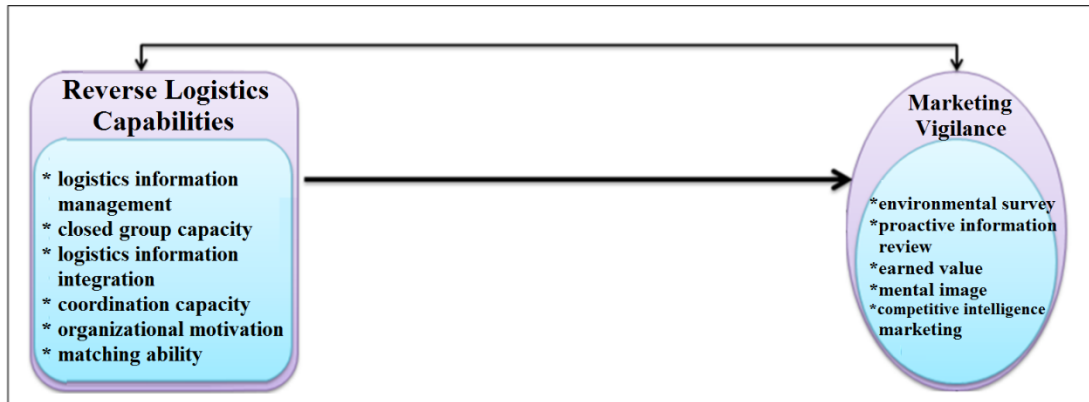


Figure 1 Hypothesis scheme of study

Fifth: Study hypotheses

The first main hypothesis: There is a statistically significant correlation of reverse logistics capabilities in marketing vigilance.

The second main hypothesis: There is a statistically significant effect of reverse logistics capabilities on marketing vigilance.

Sixth: Study population and sample

Study population was represented in the soft drinks laboratory in Babylon, while study sample included workers in the laboratory, and accordingly (275) questionnaire form was distributed to a group of workers in the soft drinks laboratory in Babylon, and after tabulating the data, the number of recovered forms was (254) forms, and accordingly after excluding the forms that do not meet the conditions of analysis, it was found that the number of forms valid for analysis (235) forms, equivalent to (19) damaged forms.

PART TWO: THE THEORETICAL SIDE OF THE STUDY**First: Reverse Logistics Capabilities****1. The concept of reverse logistics capabilities**

Reverse logistics is part of a closed-loop supply chain (CLSC) made up of five main components namely supplier, manufacturing plant, distribution/warehouse center, retailers/customers and recovery facility. The main types of a product return or commercial refunds (payment guarantees) and warranty of returned products include, returned service (repairs, spare parts), products returned as a result of the end of use as well as the end of life, recalls of recovered products for distribution and commercial returns between companies (on e.g., unsold products and erroneous/damaged deliveries), inventory adjustments and manufacturing returns include raw material surplus, quality control revenues and production/by-product residues (Abbas & Farooque, 2020:74)

The concept of reverse logistics is one of the modern administrative concepts that have emerged in recent times and this concept has taken great attention from companies because of its clear impact on the performance of companies and has been defined as the pursuit of solving environmental and economic issues, through its great role in reducing the amount of waste harmful to the environment, and sustainable natural resources in manufacturing, as well as reducing financial burdens on companies through the reuse of products, components or raw materials, and has become the subject of Reverse logistics is very important because it is not only limited to environmental protection, but includes the economic and social aspect, and reuse practices help companies in environmental and economic sustainability issues in production and distribution processes (Al-Moanis, 2020: 16) The table below shows the concept of reverse logistics according to the opinions of some writers

Table (1) reviews some of the concepts of reverse logistics according to the opinions of some writers.

NO.	Researcher Name	Concept
1	Horvath, 2005: 3	It expresses the company's ability through distribution channels to positively influence the relationship with its customers.
2	Kumar & Doa, 2006: 51	It is the recall of unsold products from retail and distribution outlets or used products from customers for the purpose of recycling or disposal..
3	Halldorsson, 2008: 26	Reverse logistics expresses the process of taking into account and paying attention to the depletion of resources by consumers and companies, as it is necessary to act responsibly and the environmental aspect is clear through effective handling of reverse logistics.
4	Turrisi et al, 2013: 567	Reverse logistics is the transfer of something from its end user to another activity or location, usually, after the intended benefit has been consumed in whole or in part, and the value is obtained from it again or disposed of.

5	Badenhorst, 2013 :7	Processes that allow companies to become more environmentally capable through recycling and reuse activities for products and reduce the amount of resources used in manufacturing.
6	Khor et al. 2016:5	Reverse logistics is the process of transporting goods from their typical final destination for the purpose of obtaining value or disposing of them appropriately.
7	Sun, 2017:21	Description of reverse logistics, the process of returning the product resulting from the reuse of the materials in the recovered product to the manufacturer after use and can be repaired or remanufactured to be delivered back in the form of new products with secondary raw materials to the end consumers. The main processes are defined as product acquisition, collection, inspection, sorting, completion or disposal.
8	Tea & Kader, 2018:3	Define it as the process of planning, implementing, monitoring, and following up the cost-effective flow of raw materials and inventory under processing, finished goods and related information from the point of consumption to the point of origin for the purpose of recovery, value creation or proper disposal.
9	Al Majzoub & Davidavičienė, 2019:3	Reverse logistics is defined as "the return of defective, damaged, or unused products to retail outlets".It includes all processes in the supply chain but in a reverse manner from the customer to the retailer. Reverse logistics in the retail industry includes recalled products, end-of-life products, and disposal.
10	Abbas, Farooque, (2020: 74	Reverse logistics is part of a closed-loop supply chain (CLSC) consisting of five key components namely supplier, manufacturing plant, distribution/warehouse center, retailers/customers and recovery facility.
11	Al-Mawanis, Mahmoud, 2020: 17	A set of processes and methods that lead to the maximum use of returned products valid for the purpose of recycling and use, namely (product possession, inspection and sorting, processing, redistribution and sale).

2. Dimensions of reverse logistics capabilities

The reverse logistics potential was assessed by (Najafizadeh & Kazemi, 2019) through 6 variables as listed below: Logistics Information Management, Closed-loop Capability. Ability to integrate, ability to collaborate, organizational engine and compatibility:

A. Logistics Information Management: The information system must provide usable and timely information that meets the requirements of managers. In order to achieve the above, information must be accessible to everyone in the outflow and inbound of reverse logistics operations. This special degree of information support is vital for reverse logistics activities to achieve success and continue to meet consumer needs. Information support will help reverse logistics efforts to recover value from the product that might otherwise be lost, as well as improve customer support and loyalty (Attia, 2021:3).

B. Closed-loop capacity: The closed-loop concept is intended as the company's strategic direction towards recycling materials, components or products along the entire supply chain loop, including forward and reverse flows of materials-components-products, to maximize materials, components and products. Recycling. Through closed-loop capability, the company can be able to know what products, components and damaged items are used to be a valuable source of secondary raw materials as well as try to maximize material recycling (Liu & Chang, 2017:7).

C. Ability to Integration: Integration has been defined as the degree to which a company can form a strategic alliance with partners in supply chains and manage its operations collaboratively within and between organizations, so that it can finally obtain an effective and efficient flow of products and services, and information that can then maximize value for the end customer through the lowest cost and high speed. (Abu Zeid, 2018: 7).

D. Collaborative capability: In the past years, companies have needed to look outside their organizations for opportunities to collaborate with partners to ensure that the supply chain is efficient and responsive to the needs of a dynamic market. Companies have worked hard to maximize supply chain collaboration to leverage the resources and knowledge of suppliers and customers, (Cao & Zhang, 2011:1).

E. Organizational Engine: Organizations that operate according to the rules, regulations and beliefs prevailing in their institutional environment have a better chance of growth and survival. Recent studies have shown that organizations that have the ability to recognize and respond to signals in their external environment have a better and greater competitive advantage than organizations with lack of flexibility and agility (Vlachos, 2016: 8).

F. Conformity: Matching refers to the shared experiences, values, principles, and business strategies of partners. According to matching theory, alignment is needed among partner organizations to strengthen supply chain relationships (Mitsuhashi & Greve, 2009:8).

Second: Marketing Vigilance

1. The concept of marketing vigilance

In light of the emergency developments of the marketing environment, instability has become the distinguishing feature of the marketing environment, and this is what made marketing managers constantly inquire about emergency

developments in the marketing environment to face great difficulty regarding their decisions and marketing programs, and that the means at their disposal to meet their need for information have become insufficient. This prompted them to establish the marketing vigilance cell as a complementary tool to the classic marketing information system, and it is considered an additional solution for marketing decision-makers, as it focuses on two aspects, which are the commercial side that focuses on the market, customers, and commercial methods, while the other side is the competitive side that is concerned with new competitors, products, and especially products. It is also concerned with knowing the needs, desires, and behavior of current consumers to obtain their satisfaction, as well as knowing the conditions of suppliers, their financial capabilities, their offering of new products, and knowing their negotiating capabilities. Specifically, following up on market development and consumer behavior and introducing new products. In this type of vigilance, the focus is on the changing needs of the customer, developing the relationship between the organization and the customer, developing new products, developing the relationship between suppliers and the organization, and the possibility of obtaining the supply of products requested by the organization at a lower cost. Continuous and iterative processes through which organizations can monitor and analyze their marketing environment to obtain potential indicators related to opportunities and threats that affect the survival of the organization, and to use vigilance in making decisions aimed at improving the performance of the organization. (Hassan, & Dawoo., 2020:1296) This will give the organization a competitive advantage. Marketing vigilance represents a group of means that allow managers to continuously inquire about emergency developments in the marketing environment of the organization, as well as searching and process information related to the organization's market in a proactive manner, which is a continuous and ethical process carried out by the organization through monitoring and analysis of the marketing environment in a way minutes, in search of potential indicators that may be opportunities or threats that affect the survival of the organization, and then use the vigilance outputs to guide the decisions of managers, and the result is improving the performance of the organization.” (Khashnoul, 261: 2022). Hence the need to adopt the concept of marketing vigilance and introduce Dumas) A conceptual framework for marketing vigilance.

2. Dimensions of marketing vigilance

Marketing vigilance can be measured through five axes according to (Hassan and Daoud, 2020) environmental survey, proactive information review, value gained, mental image, marketing competitive intelligence

a. **Environmental survey:** The marketing environment is very important in driving adoption, as aspects of the marketing environment such as the media create awareness and motivate customers to buy new products, the marketing environment represents all external sources that affect the outcome of the organization's marketing efforts (Dang,2015:1). Kotler & Armstrong, 2018:92) The marketing environment represents all the actors and forces outside the market that affect the ability of the marketing department to build and maintain successful relationships with the target customers.

In. Proactive information review: The marketing department in the organization always has the necessary information that makes it aware and aware of the developments and changes expected to occur in the internal and external environment, and proactive information is one of the inputs to the marketing information system, which represents a complex system consisting of a set of individuals, procedures and tools used to generate a streamlined flow of information (Khanfas, 2020: 51), that conducting a **proactive information review** It requires the establishment of a marketing information system that clarifies the current and future needs of the customer, and all parts of the organization participate in this system, providing and exchanging information among themselves (Mia et al., 2013: 202).

c. **Mental image:** Marketing researchers recognize that the aesthetic value of product design directly affects the mental image a customer has towards the product (Saran et al., 2017:45). The Oxford Dictionary defines mental image as a set of principles associated with nature and the appreciation of beauty (Bhadauria, 2016:5).

W. **Competitive marketing intelligence:** It is the process of the organization carrying out a set of coordinated and specific steps, which are represented in searching, collecting, analyzing and processing data to convert it into useful information provided to decision-makers in the organization, where it is invested in the best forms to achieve the organization's goals and achieve a competitive advantage (Khenfas, 2020: 57).

C. **Earned value:** The customer usually makes a general assessment of the usefulness of the product he received in exchange for the money he paid, and that the value has two different sides, the customer's point of view and the organization's point of view (Khinfas, 2020: 53) The organization seeks to meet the needs of customers and give them the value they want to obtain, so the result is an increase in the profitability of the organization and the ability to compete and grow. This is done by focusing on the development and different needs and desires in the long term, collecting generalities about them, responding to their opinions and suggestions, gaining their trust in a large way, identifying new customers and focusing on the degree of their satisfaction and loyalty to the organization.

PART THREE: THE PRACTICAL SIDE OF THE STUDY

First: Coding of study variables

Study variables and their sub-dimensions will be coded and described using their foreign terminology, in order to facilitate the use of statistical analysis and processing methods for the data extracted from the questionnaire. This procedure will also make it easier to read and interpret the data. Table (3) shows the main variables of study and its sub-dimensions, in addition to its foreign language symbols and the number of paragraphs related to each dimension.

Table 3 Coding of study variables

Variables	Dimensions	Paragraphs	Codec
Reverse logistics capabilities	Logistics Information Management	4	RLI
	Closed-loop capacity	4	RCC
	Logistics Information Integration	4	RII
	Coordination capacity	4	RCA
	Organizational motivation	4	ROM
	Ability to match	4	RAM
Marketing vigilance	Environmental Survey	5	MES
	Proactive information review	5	MPI
	Earned Value	5	MEV
	Mental image	5	MMI
	Marketing Competitive Intelligence	5	MMC

Second: Normal Distribution Test

The results of Table (4) explain that the data of study paragraphs and the variables of the study have a normal distribution due to their conformity with the rule at a significant level greater than (0.05), and this indicates that the results reviewed by the data of study variables can be generalized to the studied community.

Table (4) Results of the normal distribution of study variables

Paragraph	Kol-Smia	Sig.	Resolution
Reverse logistics capabilities	0.212	P > 0.05	Good moderation
Marketing vigilance	0.178	P > 0.05	Good moderation

Third: Stability and truthfulness of the measuring instrument

A. The results indicate that the paragraphs of the measurement tool are characterized by stability and high credibility, as they obtained a strong correlation coefficient between their parts by (0.958), an individual relative fragmentation equal to (0.961) and an even fragmentation of (0.956), and stabilized at the Spearman-Brown correlation coefficient by (0.979). The Cotman fractionation coefficient of the half fraction is strongly supported by a coefficient of (0.978), which demonstrates the consistency and consistency of the paragraphs of the measuring instrument.

B. the results show that the variable of reverse logistics capabilities, represented in (logistics information management, closed-loop capacity, logistics information integration, coordination capacity, organizational motivation, and the ability to conform) and by (24) items, that the paragraphs of the measurement tool are characterized by relative stability in the Cronbach alpha coefficient reached (0.980) and credibility of (0.990), and this shows the interest of workers in the soft drinks laboratory in improving the integration of logistics information by a stability coefficient of (0.919) and this is due to the harmony and compatibility of the paragraphs of the dimension with the opinions of the study sample. while the management of logistics information came in last place with the stability of the measuring tool by the alpha Cronbach coefficient reached (0.763), which means that the paragraphs of the measuring tool are characterized by the opinions of the workers in the soft drinks factory, which is an acceptable value.

C. the results resulted in the existence of relative stability of the marketing vigilance paragraphs, represented in (the environmental survey, review of proactive information, earned value, mental image, and marketing competitive intelligence) by (25) items, and the rest of the alpha Cronbach (0.966) and credibility of (0.983), to indicate the stability of the paragraphs of the measurement tool towards this variable and perhaps the dimension that contributed to raising this value of this variable after the value gained by (0.917), while after the environmental survey came in last place with stability (0.771), the analysis generally led to the acceptance of the stability of the measuring instrument.

Table (5) Cronbach alpha stability coefficients for study measuring instrument

Variable	Dimension	Paragraphs	Stability coefficients	Honesty transactions
Reverse logistics capabilities	Logistics Information Management	4	0.763	0.873
	Closed-loop capacity	4	0.894	0.946
	Logistics Information Integration	4	0.919	0.959
	Coordination capacity	4	0.874	0.935
	Organizational motivation	4	0.881	0.939
	Ability to match	4	0.795	0.892

	Stability and honesty coefficient of reverse logistics capabilities variable			0.980	0.990
Marketing vigilance	Environmental Survey		5	0.771	0.878
	Proactive information review		5	0.894	0.946
	Earned Value		5	0.917	0.958
	Mental image		5	0.889	0.943
	Marketing Competitive Intelligence		5	0.872	0.934
	Stability and honesty coefficient of marketing vigilance variable			0.966	0.983
The correlation coefficient between the two parts of the resolution			0.958	Its paragraphs meet the condition of stability	
Half Fractionation Plants	31	Individual	0.961		
	30	My husband	0.956		
Spearman-Brown Laboratories			0.979	Tough cookie	
Cottman Half Fractionation Coefficient			0.978		

Fourth: Statistical Description

1. Variable reverse logistics capabilities

The results of Table (6) show the interest of the workers in the soft drinks factory in improving the reverse logistics capabilities, and this contributed to obtaining the closed-loop ability to the first place among the dimensions of the reverse logistics capabilities variable, indicating an arithmetic mean (3.32) and a standard deviation of (1.09), which achieves relative interest (66%), indicating that when the plant has strong reverse logistics capabilities, it is likely to have the ability to meet the needs of customers well, thus improving the quality of service and improving interaction with customers. The results also show a weak interest in increasing customer satisfaction and positive interaction with the laboratory, and this was shown after the organizational motivation with an arithmetic mean of (3.14) and a standard deviation of (0.91) and relative importance (63%).

As a result of the above, it is noted that the general average of the reverse logistics capabilities variable contributed to achieving an arithmetic mean (3.24), a standard deviation of (0.88) and relative importance (65%), which means that companies with strong reverse logistics capabilities, increase their response to the growing needs of customers, which leads to enhancing customer support for the laboratory and enhancing their satisfaction with the laboratory. Thus, reverse logistics capabilities can improve customer organizational motivation. Moreover, when reverse logistics capabilities are improved, the lab can interact with customers better in cases of returns or objections and can identify and resolve any problems facing customers more easily. Once customers feel that the lab has responded well to their needs, their organizational motivation towards the lab is likely to increase.

Table (6) Results of the statistical description of the variable of reverse logistics capabilities

Dimension	mean	Answer direction	Answer Level	Standard deviation	Materiality	Importance level	Order of importance
Logistics Information Management	3.31	neutral	Mild	1.02	66%	Available	2
Closed-loop capacity	3.32	neutral	Mild	1.09	66%	Available	1
Logistics Information Integration	3.31	neutral	Mild	1.10	66%	Available	3
Coordination capacity	3.17	neutral	Mild	0.98	63%	Available	5
Organizational motivation	3.14	neutral	Mild	0.91	63%	Available	6
Ability to match	3.21	neutral	Mild	0.87	64%	Available	4
Reverse logistics capabilities	3.24	neutral	Mild	0.88	65%	Available	

2. Marketing vigilance variable

The results of Table (7) show the interest of workers in the soft drinks factory in improving marketing vigilance, and this contributed to obtaining the acquired value dimension on the first spot among the dimensions of the marketing vigilance variable, indicating an arithmetic mean (3.26) and a standard deviation of (0.91), which achieves relative interest (65%), indicating the importance of the research laboratory's interest in improving the vigilance of marketers in a way that improves their ability to design marketing offers, products and services that meet these needs, and thus this is related to increasing the value gained by customers. The results also show a weak interest in creating advanced and innovative marketing methods in order to build a positive image among customers towards the products of the factory, and this is shown after the mental image with an arithmetic mean of (3.13) and a standard deviation of (0.90) and relative importance (63%).

As a result of the foregoing, it is noted that the general rate of the marketing vigilance variable contributed to achieving an arithmetic mean of (3.18), a standard deviation of (0.79), and relative importance of (64%), which means that marketing vigilance improves the ability to understand events and shifts in the market and to understand the needs, needs and expectations of customers. Which explains the importance of marketing vigilance for companies, and this in turn enhances the capabilities of those who possess marketing vigilance to improve their marketing strategies, by analyzing customers and the market periodically and using this information to enhance the relationship with customers and provide better products and services.

Table (7) the results of the statistical description of the marketing vigilance variable

NO.	mean	Answer direction	Answer Level	Standard deviation	Materiality	Importance level	Order of importance
Environmental Survey	3.17	neutral	Mild	0.86	63%	Available	4
Proactive information review	3.22	neutral	Mild	0.96	64%	Available	3
Earned Value	3.26	neutral	Mild	0.91	65%	Available	1
Mental image	3.13	neutral	Mild	0.90	63%	Available	5
Marketing Competitive Intelligence	3.23	neutral	Mild	0.86	65%	Available	2
Marketing vigilance	3.18	neutral	Mild	0.79	64%	Available	

Fifth: Hypothesis Testing

The first main hypothesis: There is a statistically significant correlation between the strategic recovery of the drug and marketing vigilance.

It is noted from the results of Table (8) that the increased interest of the soft drink factory in Babylon in reverse logistics capabilities and marketing vigilance enhances the correlation between them by an amount of (0.928), and this contributes to improving the ability to identify customers' needs and meet them quickly and effectively, and this requires marketing vigilance. There is also a correlation with the dimensions of marketing vigilance, ranging from (0.740) for the environmental survey dimension to (0.904) for the acquired value dimension..

Table 8 Correlation matrix

	RLI (1)	RCC (2)	RII (3)	RCA (4)	ROM (5)	RAM (6)	RLC (7)	MES (8)	MPI (9)	MEV (10)	MMI (11)	MMC (12)	MAV (13)
1	1												
2	.681**	1											
3	.736**	.816**	1										
4	.638**	.786**	.808**	1									
5	.716**	.861**	.816**	.740**	1								
6	.579**	.764**	.759**	.771**	.694**	1							
7	.818**	.917**	.928**	.880**	.901**	.838**	1						
8	.579**	.631**	.693**	.740**	.672**	.586**	.740**	1					
9	.675**	.890**	.837**	.764**	.829**	.736**	.889**	.634**	1				
10	.718**	.787**	.884**	.844**	.786**	.759**	.904**	.759**	.793**	1			
11	.693**	.813**	.785**	.791**	.855**	.654**	.867**	.792**	.821**	.803**	1		
12	.662**	.769**	.819**	.777**	.758**	.711**	.844**	.760**	.785**	.801**	.803**	1	
13	.738**	.861**	.891**	.847**	.858**	.759**	.928**	.844**	.885**	.905**	.920**	.905**	1

H1: There is a statistically significant correlation between reverse logistics capabilities and marketing vigilance.

Table (2) and Figure (9) present structural modelling of the nature of the impact of reverse logistics capabilities on marketing vigilance. (0.022), which means that reverse logistics capabilities can help improve marketing alertness, by improving customer satisfaction and increasing their loyalty. If the factory is able to meet the needs of customers quickly and effectively, it will be able to improve customer satisfaction and increase their loyalty, and this contributed to the interpretation of (0.862) from the square of the difference in marketing vigilance.

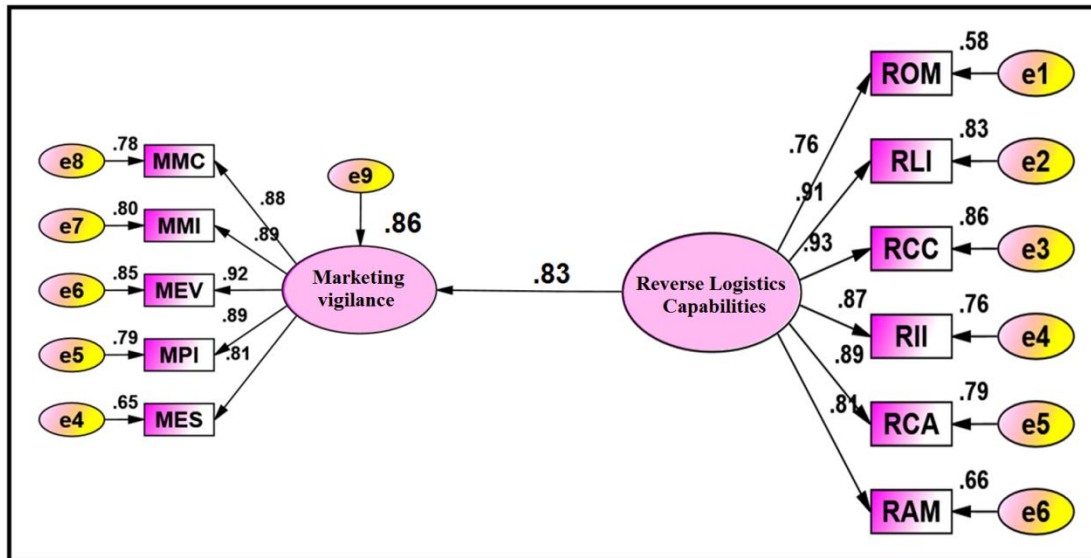


Figure (2) Standard model of the impact of reverse logistics capabilities on marketing vigilance

Table (9) Results of the analysis of the impact of reverse logistics capabilities on marketing vigilance

path			Standard weights	standard error	C.V	R ²	(P)
Reverse Logistics Capabilities	<---	Marketing Vigilance	0.834	0.022	37.909	0.862	***

PART FOUR: CONCLUSIONS AND RECOMMENDATIONS

First: conclusions

1. The research laboratory is keen to use written procedures and instructions to monitor and control the return process, which enhances its capabilities to share information about returned products between departments.
2. The research laboratory can collect information and process it effectively about the returned products, which contributes to improving its ability to reveal information as quickly as possible by alerting the marketing environment.
3. The interest of the researched laboratory in improving the ability of workers to share information about the reasons for the returned products and work to address the weaknesses of the quality rings in the factory.
4. The research laboratory focuses on using clear procedures to show interest in the problems of employees by collecting information on developments in the field of scientific research when developing its products, which improves the speed of workers to respond to the requirements and needs of customers.
5. The research laboratory adopts sufficient attention to employee satisfaction with regard to the services provided to them, which improves its ability to carefully monitor the movements of competitors in the market.

Second: Recommendations

1. The laboratory lacks flexible production techniques using minimal raw material stocks, which requires changing the warehouse storage capacity of returned products quickly and the use of skilled and qualified workers to deal with returns.
2. The research laboratory should focus on investing in proactive information that helps it respond promptly by gaining the trust and credibility of customers in dealing seriously with the laboratory.
3. The research laboratory should be interested in collecting information and processing it effectively about returned products, which requires the implementation of information systems to record, track and respond to returned service requests from customers.
4. The researched laboratory should make a comparison with other competing companies to improve its position in the market by supporting employees who have high talents in management and providing appropriate ideas to improve their performance.
5. The researched laboratory should be keen to set appropriate regulations and make efforts to solve employee problems and respond to their requirements, which requires monitoring the available opportunities in the marketing environment and exploiting them to increase the volume of its sales.

REFERENCES

1. Abu Zeid, Hamdi Fawzi Thabet. (2015). Measuring the Impact of Supply Chain Integration on Institutional Performance Using the Organizational Capabilities Approach: A Field Study
2. Hussein Intisar Aziz, 2015 "The relationship between strategic vigilance and marketing culture and its impact on marketing management trends", PhD thesis, Al-Mustansiriya University.
3. Khashnoul, Asia Iman. 2022, The impact of marketing vigilance on marketing crises, an exploratory study of the opinions of a sample of employees in the Telecommunications Corporation Skikda, *Journal of the Economic Researcher*, Volume 10 (01), Algeria: University of August 20, 1955 - Skikda-, pp. 259-2
4. Al-Moanis, Mahmoud. 2020 The Impact of Reverse Logistics Operations on Supply Chain Performance - A Field Study in Industrial Plastic Factories in Oman, Master's Thesis, Middle East University
5. Abbas, H., & Farooque, J. A. (2020). Reverse logistics practices in Indian pharmaceutical supply chains: a study of manufacturers. *International Journal of Logistics Systems and Management*, 35(1), 72-89.
6. Al Majzoub, M., & Davidavičienė, V. (2019, May). Comparative analysis of reverse e-logistics' solution in Asia and Europe. In *International Scientific Conference On Contemporary Issues In Business, Management And Education, Proceedings*.
7. Amin, S. H., & Zhang, G. (2012). A three-stage model for closed-loop supply chain configuration under uncertainty. *International Journal of Production Research*, 51(5), 1-21.
8. Badenhurst, A. (2013). A framework for prioritising practices to overcome cost-related problems in reverse logistics. *Journal of Transport and Supply Chain Management*, 7(1), 1-10.
9. Bhadauria, A. (2016). Investigating the Role of Aesthetics in Consumer Moral Judgment and Creativity, Doctor Dissertation, Doctor of Philosophy in Management Science, The University of Wisconsin-Milwaukee.
10. Dang, V. (2015). Market Research for a Basketball Tournament in Hanoi-Run and Shoot.
11. Halldorsson, A. 2008. Reverse Logistics. *Supply Management*. 31 January 2008 26 – 27.
12. Hassan, S. M., & Dawood, F. S. (2020). Marketing vigilance and its role in ambidexterity performance applied research in baghdad company for soft drinks. *International Journal of Management (IJM)*, 11(12)(.
13. Horvath, P. A., Autry, C. W., & Wilcox, W. E. (2005). Liquidity implications of reverse logistics for retailers: A Markov chain approach. *Journal of retailing*, 81(3), 191-203.
14. Khor, K. S., Udin, Z. M., Ramayah, T., & Hazen, B. T. (2016). Reverse logistics in Malaysia: The Contingent role of institutional pressure. *International Journal of Production Economics*, 175, 96-108.
15. Kotler, P., & Armstrong, G. (2018). *Principles of Marketing (17th Global Edition)*, Pearson Education Limited.
16. Kumar, Vinod and Dao, Anh, 2006, *Reverse Supply Chain Management : An Integrated Research Framework*.
17. Liu, S., & Chang, Y. T. (2017). Manufacturers' closed-loop orientation for green supply chain management. *Sustainability*, 9(2), 222.
18. Mitsuhashi, H. and Greve, H.R. (2009), "A matching theory of alliance formation and organizational success: complementarity and compatibility", *Academy of Management Journal*, Vol. 52 No. 5, pp. 975-995.
19. Najafizadeh, A., & Kazemi, F. (2019). The impact of reverse logistics capabilities on firm performance with mediating role of business strategy. *Journal of System Management*, 5(2), 225-240.
20. Namweseza, Z. (2021). Reverse logistics capabilities and supply chain performance in Ugandan pharmaceutical industry (Doctoral dissertation, Kyambogo University).
21. Saran, A., Kalliny, M., & Minor, M. (2017). Desire for visual aesthetics (DVA) in the store environment: concept and measurement. *Journal of Promotion Management*, 23(1), 45-61.
22. Shaik, M. N., & Abdul-Kader, W. (2018). A hybrid multiple criteria decision-making approach for measuring the comprehensive performance of reverse logistics enterprises. *Computers and Industrial Engineering*, 123, 9-25.
23. Sun, Q. (2017). Research on the influencing factors of reverse logistics carbon footprint under sustainable development. *Environmental Science and Pollution Research*, 24(29), 22790-22798.
24. Turrisi, M., Bruccoleri, M., & Cannella, S. (2013). Impact of reverse logistics on supply chain performance. *International Journal of Physical Distribution & Logistics Management*.
25. Vlachos, I. P. (2016). Reverse logistics capabilities and firm performance: the mediating role of business strategy. *International Journal of Logistics Research and Applications*, 19(5), 424-442.