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The links between dairy supply chains and shoppers' actions in convenience stores in Baghdad governorate

الارتباطات بين سلاسل توريد الألبان وسلوك المتسوقين في محلات السوبر ماركت في محافظة بغداد

أ.م. اميرة شكر ولي البياتي	أ.م.د. سهى جمال مولود
Assist. Prof. ameera shukur weli albayatey	**Assist. Prof. Dr. Suha Jamal Mawlood**
ameera_albayatey@coadec.uobaghdad.edu.iq	suha.j@coadec.uobaghdad.edu.iq
جامعة بغداد / كلية الإدارة والاقتصاد	جامعة بغداد / كلية الإدارة والاقتصاد
University of Baghdad / College of Administration and Economics , Business Administration	**University of Baghdad / College of Administration and Economics , Business Administration**

Abstract : The research seeks to test the relationship between dairy supply chains and shoppers' behavior in convenience stores in Baghdad Governorate. The research sample was selected by random sampling method consisting of (98) workers in convenience stores, and the questionnaire was relied upon as the main tool to obtain the research data, which was prepared based on a number of ready-made scales after modifying them to suit the Iraqi environment. To test the validity of the hypotheses and answer the research questions, the descriptive analytical method and statistical tests were used, including: arithmetic mean, standard deviation, percentages and frequencies and Pearson's correlation coefficient, and based on the statistical program (SPSS. V.28),The research reached a set of conclusions, the most important of which is that improving dairy supply chains through information exchange, integration, coordination, and rapid response to market needs can contribute significantly to improving shoppers' behavior and increasing the effectiveness of convenience stores in Baghdad Governorate.

Keywords: dairy supply chains, shoppers' actions, convenience stores .

المستخلص: يسعى البحث إلى اختبار العلاقة بين سلاسل توريد الألبان وسلوك المتسوقين في محلات السوبر ماركت في محافظة بغداد. وقد تم اختيار عينة البحث بطريقة العينة العشوائية المكونة من (98) عاملاً في محلات السوبر ماركت، وتم الاعتماد على الاستبانة كأداة رئيسية للحصول على بيانات البحث والتي تم إعدادها بناءً على عدد من المقاييس الجاهزة بعد تعديلها لتتناسب مع البيئة العراقية. ولاختبار صحة الفرضيات والإجابة على أسئلة البحث تم استخدام المنهج الوصفي التحليلي والاختبارات الإحصائية ومنها: المتوسط الحسابي والانحراف المعياري والنسب المئوية والتكرارات ومعامل ارتباط بيرسون، وبالاعتماد على البرنامج الإحصائي (SPSS. V.28)، توصل البحث إلى مجموعة من الاستنتاجات أهمها أن تحسين سلاسل توريد الألبان من خلال تبادل المعلومات والتكامل والتنسيق والاستجابة السريعة لاحتياجات السوق يمكن أن يسهم بشكل كبير في تحسين سلوك المتسوقين وزيادة فعالية محلات السوبر ماركت في محافظة بغداد.

الكلمات المفتاحية: سلاسل توريد الألبان، سلوك المتسوقين ، محلات السوبر ماركت .

1. Introduction

Dairy supply chains are essential elements that contribute to meeting the needs of local markets for basic food products, and dairy is one of the commodities that receive great attention from consumers. At the same time, understanding shoppers' behavior in convenience stores is very important to understand how different factors affect shoppers' behavior. This study aims to explore the relationship between dairy supply chains and shoppers' behavior in convenience stores in Baghdad Governorate, by knowing how logistical factors related to dairy supply affect consumers' choices and decisions in this commercial environment and the potential effects of

these chains on product availability and quality. The study consisted of four attempts, as the first axis included the research methodology and previous studies, while the second axis focused on the theoretical aspect, while the third axis included the practical framework, while the fourth axis was devoted to the most important conclusions and recommendations.

2.   Research Methodology

2.1. Research Problem

The research problem is represented in the lack of clarity of the direct relationship between dairy supply chains and shoppers' behavior in convenience stores in Baghdad Governorate. Despite the importance of dairy as a basic food product in consumers' lives, purchasing behaviors related to it may be affected by several factors related to product quality, availability, and timing of its arrival to the markets. On the other hand, different supply processes - such as storage period, transportation, and distribution - may affect consumers' choices in terms of brand preferences and prices, as well as the possibility of products being available at the right time. Therefore, the research aims to understand how dairy supply chains affect shoppers' behavior in convenience stores in Baghdad, and the extent to which these chains affect the availability and quality of products, which may help improve supply and marketing strategies in line with consumers' needs and expectations. The main problem of the study can be diagnosed by asking the following question: (Are dairy supply chains in convenience stores related to shoppers' behavior?) To understand all aspects included in these problems, we ask the following sub-questions- :

1- To what extent are dairy supply chains applied in convenience stores?
2- What is the level of awareness of shoppers' behavior in convenience stores?
3- Are dairy supply chains related to shoppers' behavior for the sample under study?

2.2.The importance of the research

The importance of the research is focused on the following:

1- The current research represents a modest addition to the Iraqi library in the fields of dairy supply chains and shoppers' behavior in convenience stores.
2- The importance of the research is reflected in the field in the Iraqi environment due to the lack of diagnosis of the level of dairy supply chains as well as their employment in shoppers' behavior.
3- It is a serious attempt to direct the attention and modify the behaviors of supermarket workers based on the application of supply chains, which enhances positive behaviors among shoppers.

2.3. Research objectives

The research aims to achieve a number of objectives based on what was presented in the problem, which are:

1- Realizing the concept of dairy supply chains among supermarket workers.
2- Diagnosing the extent to which convenience stores are aware of their shoppers' behaviors in the presence of dairy supply chains.

3- Testing the correlation between dairy supply chains and shoppers' behaviors in convenience stores.

2.4. Tools and methods used in statistical analysis

The questionnaire was used as a means of collecting data and using a five-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) and the program (28spss, V.) was used to analyze the data. As for the statistical research tools, they are represented by the following:

1- Arithmetic mean: which aims to know the level of the sample's response.
2- Frequencies and percentages: in order to determine the extent of agreement on the research paragraphs.
3- Standard deviation: through which the credibility of the sample's answers can be known/ by determining the dispersion of answers from their arithmetic mean.
4- Coefficient of variation: It is used to balance the difference between the arithmetic mean and the standard deviation.
5- Correlation coefficient (Pearson): through which the association (relationship) between the research variables is known.

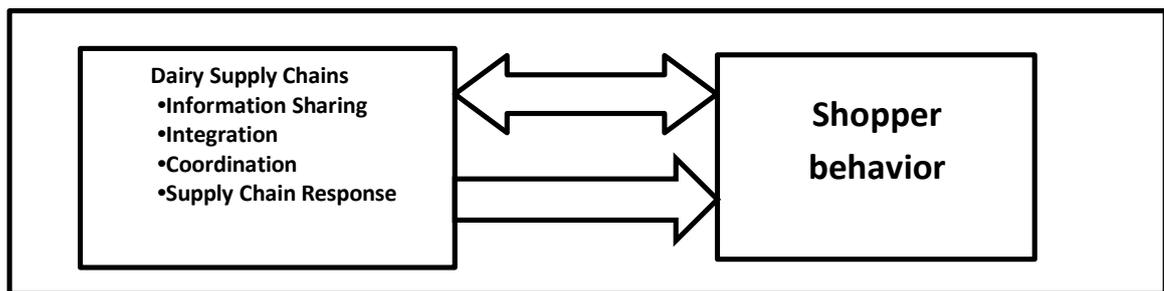## 2.5. Hypothetical research plan

Dairy Supply Chains
•Information Sharing
•Integration
•Coordination
•Supply Chain Response

Shopper behavior

Figure (1) Hypothetical research plan

2.6. Research hypotheses

Based on the hypothetical research plan, it became clear what hypotheses should be formulated, and accordingly, the research hypotheses were formulated as follows:

first Main hypothesis: There is a statistically significant moral correlation between dairy supply chains and shoppers' behavior, and the following sub-hypotheses branch out from it:

1- There is a statistically significant moral correlation between information exchange and shoppers' behavior.
2- There is a statistically significant correlation between integration and shoppers' behavior
3- There is a statistically significant correlation between coordination and shoppers' behavior

4- There is a statistically significant correlation between supply chain response and shoppers' behavior

The second main hypothesis: There is a statistically significant moral influence relationship for dairy supply chains on shoppers' behavior, and the following sub-hypotheses branch out from it:

1- There is a statistically significant moral influence relationship for information exchange on shoppers' behavior.
2- There is a statistically significant moral influence relationship for integration on shoppers' behavior
3- There is a statistically significant moral influence relationship for coordination on shoppers' behavior
4- There is a statistically significant moral influence relationship for supply chain response on shoppers' behavior

2.7. Research Methodology

The researcher used the descriptive analytical method, as the research variables are described in the theoretical aspect, then the statistical treatments are analyzed in the practical aspect according to what the problem and objectives of the research require, as this method is suitable for such studies and the nature of the relationship between its variables and the effect of that relationship on the variables.

2.8. Research Population and sample

The research Population and a number of convenience stores in the city of Baghdad, and the method of determining the sample size using the equation based on the number of paragraphs of the research variables:

$$\text{Sample size} = \text{number of paragraphs of the total variables} \times \text{average number of paragraphs of dimensions} \times 75\%$$

$$\text{Sample size} = 29 \times 4.5 \times 75\% = 97.875 \text{ individuals.}$$

The reason for choosing a percentage of (75%) is due to the Population being one of the communities with a medium to good response, and 110 questionnaires were distributed, 105 questionnaires were retrieved, and 98 questionnaires were valid for statistical analysis.

2.9. Sources of data and information collection

The study relied on a group of sources for the practical and theoretical aspects as follows-:

1- The theoretical aspect The researchers relied on collecting sources for the theoretical aspect of the research from electronic websites on the Internet from magazines, books, theses, frameworks, and published research.
2- The practical aspect: The data and information were obtained through the questionnaire that was distributed and retrieved from the sample individuals, which is the primary source for the practical aspect that the researcher relied on. Its paragraphs were

designed from ready-made scales from foreign studies that dealt with the research variables after translating them and making the necessary modifications to them to suit the requirements of the research and its local community, The independent variable was dairy supply chains and consisted of four dimensions (information exchange, integration, coordination, and supply chain responsiveness). The questionnaire items were formulated based on the Wu et al. (2006) scale, and shoppers' behaviors were the dependent variable based on the Purwanto (2022) scale.

3. theoretical framework

3.1. supply chains

3.1.1. the concept of dairy supply chains

The concept of supply chain management has developed rapidly in the last two decades due to the rapid development in the functions of purchasing, planning, production and providing logistics services. However, completing these functions internally and externally and unifying them still represents a major challenge for economic units, which shows the importance of adopting the concept of supply chain management and taking into account the functional activities of supply chain units in achieving effective management of the chain, which helps in providing services (Delphi, 2021: 17). Competition has moved from individual firms to supply chains in the current economic climate, and gaining a competitive edge and enhancing organizational performance depend more and more on efficient supply chain management. In the operations strategy of the manufacturing and service sectors, supply chain management has emerged as a key role. (Akbar & Jalal, 2016: 3).(Ross et al., 2017: 578) stated that the goal of the management philosophy's ongoing development is to integrate business resources, functions, and production capabilities both inside and outside the facility with business partners. assessing supply channels' significance in the context of customer synchronization and competitive advantage in the flow of goods and services to the market as well as the data required to establish excellence as a single source of customer value. It is sometimes referred to as a collection of techniques for efficiently integrating vendors, corporate entities, storage facilities, and retail establishments.. The purchasing, production, and distribution phases make up the supply chain. One of the contemporary management techniques that businesses require to increase their competitiveness is supply chain management (Zainuddin et al., 2022: 443). The aforementioned makes it evident that supply chains are a strategy used by the company to enhance interactions with suppliers and customers in order to deliver goods and services at the proper time, speed, and quality..

3.1.2. The importance of dairy supply chains

The importance lies in the following (Umeh, 2017: 177)

1- Reducing preparation time, improving customer service, eliminating bottlenecks, and zero inventory
2- Improving employee skills and reducing direct and indirect costs.
3- Eliminating or at least reducing waste in any way.

4- Establishing cooperative relationships while achieving a balance between cooperation and competition.

5- Pricing products is based on the market and not on cost, which gives the organization higher competitive advantages.

According to the above, the researcher believes that what was put forward by the researchers lies in the importance of the supply chain in its focus on eliminating waste of all kinds and reducing direct and indirect costs, thus improving all operations of the organization.

3.1.3. Objectives of dairy supply chains

Supply chain management seeks to achieve many goals, and the objectives of supply chain management can be translated into many areas such as: flexibility, reliability of delivery, and the level of delivery time and inventory waiting. As the reliability of delivery times is one of the aspects of customer service; Which depends on flexibility and inventory to a large extent, the objectives of supply chain management are represented in satisfying the final customer through efficient response to his requirements and focusing on the efficiency of the supply chain performance and its flexibility by adopting the concept of a flexible chain capable of adapting to cases of uncertainty (Hanfey, 2010: 34). Since the supply chain exceeds the boundaries of the organization towards suppliers and customers, the researchers believe that the main objective of the smart supply chain is to coordinate communication between all parties participating in the chain in a way that ensures providing the optimal solution that provides the greatest benefit and the lowest cost and in the shortest time, in addition to the following objectives (Ivanoviska & Kaleshovska, 2013: 314):

1- Improving the activities and methods used through which companies obtain the necessary to produce products or provide services to customers.

2- Determining the best options for delivering the product to the customer in an effective manner and at the lowest prices.

3- Providing flexible communication systems that help the flow of information across the company and its customers on the one hand and across the company and suppliers on the other hand.

4- The company's emphasis and keenness to involve customers and suppliers in the development of existing products and the innovation of new products to introduce them to the market.

3.1.4. Dimensions of dairy supply chains

The dimensions of dairy supply chains will be explained as follows:

1- Information exchange: Information exchange is referred to as the organization's ability to share knowledge and information effectively and efficiently with its supply chain partners about goods, processes, and services. Effective information exchange is identified as one of the most important pillars of the supply chain process, which enables the organization to achieve the effective flow of products, goods, services, and information. Information is exchanged and shared in the supply chain system between

direct supply chain partners and then across the entire supply chain network (Jimenez-Jimenez et al., 2019: 549).

2- Coordination: Coordination is referred to as a dimension of the supply chain to the organization's ability to coordinate and arrange activities related to business transactions such as purchases, sales, and delivery with customers, suppliers, and supply chain partners and parties. It is often called internal coordination, and it also includes coordination with chain partners to coordinate materials, funds, manpower, and capital equipment (Ganbold et al., 2020: 317).(

3- Integration: As the idea of integration is about the partnership between the supplier and the company in the near future vision, it helps suppliers achieve a high level of customer service, which in turn enables manufacturers to improve their customer service. This is because developing integration relationships with suppliers helps them understand and anticipate the needs of the manufacturer in order to fully and better meet its changing requirements, including; and through the exchange of information about products, processes, schedules, and manufacturers' capabilities to develop production plans and improve their performance. (Ishaq, 2021: 7).

4- Supply chain response: It is the ability to adapt to environmental changes, whether opportunities or threats, while achieving rapid response to customer requests, such as providing various new products by participating with suppliers in the innovation process, and the response is the speed of delivery on time and the ability to fulfill the order, taking into account reducing inventory and lost sales while maintaining high energy.Dhaigude & Kapoor, 2017, 280((

3.2 shoppers' behavior

3.2.1. The concept of shoppers' behavior

 Shoppers' behavior is related to individuals' intentions towards purchasing the product of goods and services provided, and the more positive the impression of individuals is and that this product will satisfy their needs and desires, the higher the probability of purchase will be. The purchase decision is represented by choosing the best product from among the products offered, in addition to its lower cost and higher quality from the consumer's perspective. Many subjective and acquired factors contribute to determining the appropriate purchase decision, so the purchase decision is a thorny issue in which many factors overlap to make it (Al-Dulaimi, 2014: 228). It was defined by (Kotler & Keller, 2012: 151) as studying how individuals, groups or purchasing organizations choose services, ideas and experiences to satisfy their needs and desires, while (Hamishi and Mashou, 2013: 6) see the set of actions, behaviors, movements and reactions that the consumer performs when making a purchase decision, which can be observed or seen directly when he purchases the product or service and chooses among the many alternatives offered. In front of him, and described it (Kotler & Keller, 2016: 133) that shoppers' behavior is an act of consumers who want to buy or not buy the product, while (Kotler, 2018: 185) outlined the behavior of consumers as any person who purchases a good or service for their own use. After a consumer customizes a product or service from the company and believes that it can provide something unique from the company's other offerings, Tecoalu et al. (2021: 184) stated that there is a bond between the customer and the product.

The aforementioned makes it evident that consumers' behavior can be characterized as the process of selecting the best good or service from their perspective and believing that it best suits their needs. The company can sway their decision to buy by engaging in successful marketing campaigns.

3.2.2. The significance of consumer behavior

Opinions varied on determining the importance of shoppers' behaviors. We review some of these opinions according to the following paragraphs (Kuncoro & Windyasari, 2021: 44) and (Nurkhasanah & Santoso, 2020: 2):

1- representing the consumer marketing segment and helping to discover potential promotion strategies, including selecting the tools and creating promotional campaigns. Finding the best advertising technique and assessing the success of marketing plans are the sources.
2- The actions of shoppers assist the company in selecting target markets and in dividing the market into consumer and industrial segments.
3- Shoppers' behaviors are very important to consider because shoppers' behaviors are things that organizations use to create marketing strategies that will be implemented.
4- Selecting the right market segment by breaking up the consumer base into homogeneous groups can increase the effectiveness of the company's marketing efforts in accordance with the traits of its target audience.
5- By examining the unmet demands of customers, discovering chances for new product introduction, and making sure that the product design aligns with the goals and advantages of customers, consumer behavior studies provide marketers new avenues for growth.
6- The ability to determine target markets' needs, wants, and preferences is what makes consumer behavior so important.

3.2.3. Objectives of shoppers' behavior

Studying shoppers' behavior has objectives that benefit the consumer, the researcher, and the marketer, as explained by (Aboud and Balkhairy, 2018: 72) Objectives

1- Enabling the understanding of personal or environmental factors or influences that affect consumer behavior, as shoppers' behavior, which is part of human behavior in general, is determined as a result of the interaction of these two factors
2- Helping the consumer to realize the factors or influences that affect his purchasing behavior and make him buy or consume a commodity, service, or brand
3- Helping the consumer to gain insight into understanding the process of his purchase and consumption of goods and services, and in terms of knowing what he buys, why, and how to obtain them
4- Enabling the consumer to understand the purchasing decisions he makes daily, and helping him

5- Studying shoppers' behavior enables the marketer to know the behavior of current and potential buyers and search for how to adapt to them or influence them and get them to act in a way that is consistent with the organization's goals.

6- The results of the behavioral study on consumers help in determining their needs and desires according to the priorities determined by their financial resources and the surrounding environmental conditions.

7- Knowing the data and information that help consumers in making the best choice of goods and services according to their purchasing capabilities and tastes.

4. The practical aspect

This axis deals with the analysis and interpretation of the answers of the sample members regarding the paragraphs of the dairy supply chain variable and shopper behaviors and determining the degree of harmony and agreement in the opinions of the research sample, The research sample's responses were analyzed using statistical tools like arithmetic mean, Likert scale, standard deviation, coefficient of variation, and paragraph arrangement to diagnose answers, assess dispersion, and homogeneity, and the relative importance to ascertain the sample's level of interest and the arrangement in accordance with the paragraphs' importance.

4.2. Analysis of the results of dairy supply chains

The standard deviation and coefficient of variation, which are 0.583 and.16.33, respectively, validate the degree of interest in dairy supply chains in the stores that are the subject of the study. The sum of these findings shows that the sample's responses on this axis are becoming more and more in accord. The arithmetic mean, standard deviation, and general coefficient of variation for (dairy supply chains) are shown in Table (1). The option (agree) is indicated by the overall arithmetic mean, which is 3.568 out of (5). This is a good value, and the responses are consistent.

Table (1) Descriptive statistics for the variable of total dairy supply chains

Items	Mean	ST.V	C.V
dairy supply chains	3.568	0.583	0.1633

The dairy supply chains were measured across four dimensions: (information exchange, integration, coordination, supply chain response), and the research sample response will be explained in detail as follows:

4.2.1. Analysis information exchange results

Analysis of the information exchange's results Table (2) displays the information exchange-related arithmetic mean, standard deviation, and general coefficient of variation. The option (agree) is indicated by the table's overall arithmetic mean of 3.767 out of (5), which is a solid value with good consistency in the responses, while the standard deviation and coefficient of variation are 0.690 and 18.31, respectively, to support this. It attests to the research sample's level of interest in information sharing in convenience stores, and the sum of these findings indicates that the sample's responses in this axis are trending toward agreement. Regarding the

paragraphs, paragraph (3) (My business unit benefits from exchanging information with our partner more than our competitors benefit from their partners) had the highest arithmetic mean (3.859), falling into the high category. The answers also had acceptable consistency, with the standard deviation and coefficient of variation reaching the respective values of 0.965 and 25.00. While the standard deviation and coefficient of variation reached 0.958 and 26.76, respectively, paragraph (4) (Exchanging information with our partner is better than the information that our competitors exchange with their partners) had the lowest arithmetic mean of 3.579 within the high category, and the answers were reasonably consistent.

Table (2) Descriptive statistics for the dimension of information exchange

	Items	Mean	ST.V	C.V
1.	My business unit exchanges more information with our partner than our competitors do with their partners	3.794	0.947	0.2496
2.	Information flows more freely between my business unit and our partner than between competitors and their partners	3.838	0.895	0.2331
3.	My business unit benefits more from exchanging information with our partner than our competitors do from their partners	3.859	0.965	0.2500
4.	Exchanging information with our partner is better than our competitors do with their partners	3.579	0.958	0.2676
Total information exchange		**3.767**	**0.690**	**0.1831**

4.2.2. Analysis of integration results

Table (3) displays the arithmetic mean, standard deviation, and general coefficient of variation associated with (integration). The option (agree) is indicated by the total arithmetic mean of 6753 out of (5), which is a good figure and has strong consistency in the responses. The coefficient of variation and standard deviation, which are 18.88 and 0.694, respectively, support this. The sum of these findings suggests that the intensity of the sample's reactions in this axis is trending towards agreement, demonstrating that the research sample is interested in the level of integration in convenience stores.

Table (3) Descriptive statistics for the integration dimension

	Items	Mean	ST.V	C.V
5.	My business unit develops strategic plans in cooperation with our partner	3.579	1.074	0.3000
6.	My business unit actively cooperates in forecasting and planning with our partner	3.958	0.895	0.2261
7.	My business unit plans future demand in cooperation with our partner	3.468	0.963	0.2776
8.	Cooperation in demand forecasting and planning with our partner is something we always do in my business unit	3.573	0.970	0.2710

	Mean	ST.V	C.V
9. My business unit always plans activities in cooperation with our partner.	3.795	0.926	0.2440
Total integration dimension	**3.675**	**0.694**	**0.1888**

While the standard deviation and coefficient of variation reached (0.895) and (22.61), respectively, paragraph (6) (My business unit actively cooperates in forecasting and planning with our partner) achieved an arithmetic mean of (3.958), falling into the high category and exhibiting average consistency in the responses. Regarding paragraph (7), my business unit collaborates with our partner to plan for future demand. It received the lowest arithmetic mean (3.468) in the moderate category, but the answers were consistent enough, with the standard deviation and coefficient of variation coming in at 0.963 and 27.76, respectively.

4.1.3. Analysis of coordination results

Table (4) displays the coordination-related arithmetic mean, standard deviation, and general coefficient of variation. Since its value reached (3.839) out of (5), the table shows an overall arithmetic mean. This indicates the option (agree), which is a good value with good consistency in the answers, and is supported by the value of The standard deviation and coefficient of variation, which are 0.506 and 13.17, respectively, validate the degree of interest in supermarket coordination among the research sample. All of these results point to a trend toward agreement in the sample's responses along this axis.

Table (4) Descriptive statistics for the coordination dimension

Items	Mean	ST.V	C.V
10. My business unit is more efficient at coordinating activities with our partner than our competitors are with their partners	4.074	0.794	0.1948
11. My business unit conducts transaction follow-up activities more efficiently with our partner than our competitors are with their partners	3.858	0.894	0.2317
12. My business unit spends less time coordinating transactions with our partner than competitors are with their partners	3.893	0.790	0.2029
13. My business unit has reduced coordination costs more than our competitors	3.479	0.905	0.2601
14. My business unit can conduct coordination activities at a lower cost than our competitors	3.894	0.946	0.2429
Total coordination dimension	**3.839**	**0.506**	**0.1317**

The highest arithmetic mean of (4.074), or within the high category, was attained by paragraph (10) (My business unit is more efficient in coordinating activities with our partner than our competitors with their partners), with average consistency in the answers, as the standard deviation and coefficient of variation reached (0.794) and (19.48), respectively. The arithmetic mean for paragraph (13) (My business unit reduced coordination costs more than our

competitors) was the lowest in the moderate category at 3.479. The answers were reasonably consistent, with the standard deviation and coefficient of variation coming in at 0.905 and 26.01, respectively.

4.1.4. Analysis of the results of the supply chain response

The sum of these findings shows that the sample's responses on this axis are becoming more and more in accord. The supply chain response's arithmetic mean, standard deviation, and overall coefficient of variation are displayed in Table (5). The standard deviation value and the coefficient of variation, respectively, (0.604 and 16.76), corroborate that the table shows an overall arithmetic mean, with its value reaching (3.602) out of (5), indicating the choice (agree), which is Good value, with good consistency in the replies.

Table (5) Descriptive statistics for the supply chain response dimension

Items	Mean	ST.V	C.V
15. Our supply network adapts to shifting supplier and customer demands more quickly and efficiently than our rivals.	3.784	0.894	0.2362
16. Our supply chain reacts to shifting competition tactics more quickly and efficiently than our rivals.	3.689	0.894	0.2423
17. Our supply chain develops and launches new items more quickly and efficiently than those of our rivals.	3.469	0.905	0.2608
18. Our supply chain competes successfully in the majority of markets.	3.480	1.012	0.2908
19. By working together, our partnership has improved our supply chain's ability to adapt to changes in the market.	3.589	0.877	0.2443
Total supply chain response dimension	3.602	**0.604**	**0.1676**

Regarding the paragraphs, paragraph (15) (Our supply chain reacts to the evolving needs of suppliers and customers more quickly and efficiently than our competitors) had the highest arithmetic mean (3.784), falling into the high category. The answers also had acceptable consistency, with the standard deviation and coefficient of variation reaching (0.894) and (23.62), respectively. Regarding paragraph (17), our supply chain creates and launches new items at a faster and more efficient rate than our rivals. At 3.469, it had the lowest arithmetic mean. with acceptable consistency in the answers, as the standard deviation and coefficient of variation reached (0.905) and (26.08) respectively.

4.2. Analysis of the results of shoppers' behaviors

The arithmetic mean, standard deviation, and general coefficient of variation related to the behaviors of shoppers are displayed in Table (6). The overall arithmetic mean of 3.589 out of (5) indicates the option (agree), which is a good value with good consistency in the answers. The coefficient of variation and standard deviation, which are 20.78 and 0.746, respectively, support this. All of these findings point to a trend toward agreement in the sample's response strength along this axis. Table (9) displays the arithmetic mean, standard deviation, and general

coefficient of variation related to (shoppers' behaviors) because the table is an average. The coefficient of variation and the standard deviation are 20.78 and 0.746, respectively. validate the research sample's level of interest in supermarket consumers' behavior, and the total of these findings shows that the sample's responses in this axis are becoming more and more in agreement. The option (agree) is indicated by the total arithmetic value obtained (3.589) out of (5), which is a good result with good consistency in the answers.It is believed that the prices of substitute goods promoted on social media are comparable to my purchasing power (the highest arithmetic mean was 3.953). Thus, I fall within the high group. With the standard deviation and coefficient of variation coming in at 0.983 and 24.86, respectively, the responses likewise demonstrate average consistency. On the other hand, paragraph (28) claims that the service's monetary worth is paid without hesitation. The moderate group had the lowest arithmetic mean (3.195), yet the standard deviation and coefficient of variation were 1.045 and 32.70, respectively, indicating that the responses were quite consistent.

Table (6) Descriptive statistics of shoppers' behaviors

	Items	Mean	ST.V	C.V
5.	All of the data and information about the products the user is looking for is available on the social network.	3.568	0.981	0.2749
6.	The social network gives users access to details on the features and advantages of the products they promote.	3.894	0.921	0.2365
7.	The social network offers information on past consumer patterns and viewpoints regarding the promoted goods.	3.583	0.945	0.2637
8.	The social network offers data and information regarding the actual costs of the goods.	3.478	1.030	0.2961
9.	The consumer receives accurate and truthful information from the social network.	3.584	1.071	0.2988
10.	The goods that are promoted on social media platforms align with my evolving preferences.	3.582	1.039	0.2900
11.	The social network offers enough details to pinpoint the most well-known substitutes for the products.	3.784	0.971	0.2566
12.	The cost of the substitute goods promoted on social media is thought to	3.953	0.983	0.2486
13.	All of the data and information about the products the user is looking for is available on the social network.	3.195	1.045	0.3270
14.	The social network gives users access to details on the features and advantages of the products they promote.	3.269	0.956	0.2924
Total shoppers' behaviors		**3.589**	**0.746**	**0.2078**

4.3. Testing the hypotheses:

In order to determine the degree of acceptance or rejection of the first main hypothesis, which reads as follows, this paragraph uses the simple correlation coefficient (Person) to examine the nature of the correlations between the research variables. Dairy supply chains and consumer behavior are statistically significantly correlated. The total dairy supply chains achieved a strong positive correlation (direct) with a significant significance, with the total variable of shoppers' behaviors, and the correlation relationship reached a value of (0.677**), at a significance level of (0.01), and the number of significant relationships between dairy supply chains with the sub-dimensions of shoppers' behaviors reached (5), which constitutes (100%), and this indicates a positive and significant correlation and explains the strength of the relationship between dairy supply chains and shoppers' behaviors, and expresses the importance of practicing dairy supply chains in convenience stores and the extent of their need for them, and from here we infer the acceptance of the first main hypothesis, which states that there is a significant correlation relationship with cognitive abilities in achieving shoppers' behaviors. As shown in the following Table:(7)

Table (7) The relationship between dairy supply chains and shoppers' behaviors at the aggregate level

Independent Variable	Dependent Variable	R	sig
Information exchange	shoppers' behaviors	663.**	.000
Integration		585.**	.000
Coordination		601.**	.000
Supply chain response		677.**	.000
dairy supply chains			

(**)Significant correlation at the (0.01) level (*) Significant correlation at the (0.05) level.

Table (7) also shows the test of the correlation between information exchange and total marketers' behavior (663.**) which means accepting the first sub-hypothesis which states "There is a positive correlation between information exchange and marketers' behavior", and the test of the correlation between integration and total marketers' behavior (585.**) which means accepting the second sub-hypothesis which states "There is a positive correlation between integration and marketers' behavior", and the test of the correlation between coordination and total marketers' behavior (601.**) which means accepting the third sub-hypothesis which states "There is a positive correlation between coordination and marketers' behavior", and the test of the correlation between supply chain response and spiritual purpose and total marketers' behavior (235.**) which means accepting the fourth sub-hypothesis which states "There is a positive correlation between supply chain response and marketers' behavior."

   the second main hypothesis stated that there is a significant effect of the independent variable dairy supply chains with its dimensions on the dependent variable shoppers' behaviors, and this hypothesis will be tested through simple linear regression analysis. In light of this hypothesis, a functional relationship was formulated between them, and the regression equation

was as follows: Y = a + BX. The levels of analysis were taken as sub-levels and total levels; To know the significance of dairy supply chains for each sub-variable of the explanatory variables in each sub-variable of the response variables, the following is a detailed analysis of this hypothesis:

1- The model of the effect of Information exchange on shoppers' behaviors was significant below the level (0.01) in terms of the calculated (F) value (42.016**), which is higher than the tabular (F) value of (6.63), and the value of the coefficient of determination (R2) was (0.328), which means that Information exchange explains (32.8%) of shoppers' behaviors, and the value of the Information exchange coefficient (B) was (0.574), meaning that a change of one unit of Information exchange causes a change of (57.4%) ofshoppers' behaviors.

2- The model of the effect of Integration on shoppers' behaviors was significant below the level (0.01), in terms of the calculated (F) value (84.581**), which is higher than the tabular (F) value of (6.63) under The significance level was (0.01), and the value of the coefficient of determination (R2) was (0.371), which means that Integration explains (37.1%) shoppers' actions, and the value of the Integration coefficient (B) was (0.673), meaning that a change of one unit of Integration causes a change of (67.3%) shoppers' actions.

3- The model of the impact of the Coordination to predict on shoppers' actions was significant below the level (0.01) as indicated by the calculated (F) value (85.391**) which is higher than the tabular (F) value of (6.63) below the level of significance (0.01), and the value of the coefficient of determination (R2) was (0.418), which means that the Coordination to predict explains (41.8%) of shoppers' actions, and the value of the coefficient of the Coordination to predict (B) was (0.784), meaning that a change of one unit of the Coordination to predict causes a change of (78.4%) of shoppers' actions.

4- The model of the impact of the Supply Chain Response to predict on shoppers' actions was significant below the level (0.01) as indicated by the calculated (F) value (84.589**) which is higher than the tabular (F) value of (6.63) below the level of significance (0.01), and the value of the coefficient of determination (R2) was (0.402), which means that the Supply Chain Response to predict explains (40.2%) of shoppers' actions, and the value of the coefficient of the Supply Chain Response to predict (B) was (0.662), meaning that a change of one unit of the Supply Chain Response to predict causes a change of (66.2%) of shoppers' actions .

5- The model of the total dairy supply chains effect on shoppers' behaviors was significantly below the level (0.01) as indicated by the calculated (F) value (117.119**) which is higher than the tabular (F) value of (6.63) below the level of significance (0.01), and the value of the coefficient of determination (R2) was (0.402), which means that the total dairy supply chains explain (40.2%) of shoppers behaviors, and the value of the coefficient of dairy supply chains (B) was (0.796), meaning that a change of one unit of the total dairy supply chains causes a change of (79.6%) of shoppers behaviors, and this result provides sufficient support to accept the main hypothesis "There is a statistically significant effect between dairy supply chains and shoppers behaviors." Thus, the regression model is as follows:

Shoppers' behaviors = .895 +0.836 (Total Dairy supply chains)

The results of the impact of the combined participation on shoppers' behaviors can be summarized in the following Table:(8)

Table (8) Results of the impact of dairy supply chains on shoppers' behaviors (n=98)

Independent Variable	Dependent Variable	β0	β1	F	
				R2	calculated
Information exchange	shoppers' behaviors	1.367	0.574	%32.8	42.016**
Integration		1.537	0.673	%37.1	84.581**
Coordination		0.953	0.784	%41.8	85.391**
Supply chain response		0.943	0.662	%40.2	84.589**
dairy supply chains		0.895	0.796	%45.6	117.119**

5. Conclusions and recommendations

5.1. Conclusions

1- The results of dairy supply chains indicate that the level of interest of the research sample was high, as the results showed that dairy supply chains enjoy a high focus by respondents in convenience stores in Baghdad Governorate and confirm the existence of good Coordination and organization between business units and business partners, which contributes to meeting market needs effectively.

2- It appears that the exchange of information between business units and their partners is one of the main factors that positively affect the performance of dairy supply chains. Which enhances the competitiveness of dairy in the local market. Which indicates the importance of these practices to improve commercial performance.

3- The results of integration reflect the existence of good interest by the research sample in cooperation and Coordination with business partners, which contributes to improving strategic planning and forecasting demand, which contributes to a rapid response to market needs.

4- The results of Coordination indicate that there is a high level of Coordination between business units and their business partners in convenience stores. Good Coordination helps improve operational efficiency and achieve supply chain goals more effectively.

5- The results of the supply chain response showed that there is a quick and effective response to the changing needs of customers and suppliers. It indicates a high ability to respond to the market through cooperation with business partners.

6- The results indicate a good fit between consumer behaviors and supply chain operations. It is noted that behaviors that show interest in using social media to obtain information about products play a major role in enhancing interest in products that are compatible with purchasing power, reflecting the impact of promotional and media strategies on consumer behavior.

7- The results of the hypothesis test showed that there is a strong and significant positive relationship between dairy supply chains and shopper behaviors, as it was confirmed that there is a direct impact from dairy supply chain practices on consumer purchasing

behavior in convenience stores. This relationship supports the importance of improving supply chains to meet the needs of the local market and increase consumer satisfaction.

5.2. Recommendations

1- Strengthen data exchange mechanisms between all stakeholders, from suppliers to distributors and importers. This helps improve Coordination and ensure a smooth flow of information that contributes to improving competitiveness and the effectiveness of responding to market needs.

2- Develop stronger collaboration mechanisms between companies and suppliers to enhance the ability to predict future needs. This can be achieved by using ERP systems to improve information flow and joint planning.

3- Companies should continue to improve Coordination between different business units and business partners, by developing clear policies and procedures to ensure minimal costs and achieve the highest possible efficiency. This may include implementing technological techniques to speed up processes and achieve the highest levels of collaboration.

4- Enhance flexibility in supply chain management. Companies should keep pace with rapid developments in the market and adopt innovative solutions to adapt to changes, such as developing systems for tracking and analyzing data on an ongoing basis to quickly adapt to any changes in demand.

5- Companies should invest in innovative digital marketing strategies that enable effective communication with customers through online platforms. Through these strategies, updated product information can be disseminated and interest in products that meet consumer requirements can be enhanced, which contributes to increasing customer loyalty and boosting sales.

6- Companies should use big data and advanced analytics tools to analyze consumer behavior and forecast demand. This will enable companies to improve their marketing strategies and offer products that meet market needs more accurately. 7. Companies should strike a balance between effective integration between partners and internal organization to ensure that operations run smoothly. Through this, high efficiency can be achieved in the supply chain and risks resulting from lack of Coordination or slow updates in information can be reduced.

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