Identifying Obstacles to Omnichannel Implementation in the Export Sector (Case Study: Food Industries)

Seyed Alireza. Saleh[1]📖, Manouchehr. Ansari[2]*📖, Seyed Pendar. Toufighi[3]📖

[1] Phd Student in Business Management -Business Policy Making Management Trend, Aras International Campus, University of Tehran, Tehran, Iran
[2] Associate Professor at Faculty of Business Management, University of Tehran, Tehran, Iran
[3] Assistant Professor, Department of Technology and Innovation, University of Southern Denmark

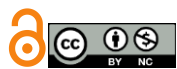*** Corresponding author email address**: mansari@ut.ac.ir

A r t i c l e   I n f o

Article type:
Original Research

A B S T R A C T

Objective: The primary aim of this research is to identify the components and obstacles to implementing omnichannel in the export sector.

Methodology: The research approach is both qualitative and quantitative, and by nature, it is exploratory and descriptive. The statistical population of this study includes experts in the export sector of the food industry. The snowball sampling method has been used in this research. Ultimately, the sample size was determined to be 12 individuals at the point of theoretical saturation. Interviews were conducted to identify the obstacles in the research. The validity of the codes was evaluated through CVR (Content Validity Ratio). The data analysis method used in this research is thematic analysis. For the prioritization section, the quantitative method of hierarchical analysis was used. In this section, a pairwise comparison questionnaire was utilized to examine the ranking of the studied indicators.

Findings: The results of this investigation identified three main obstacles categorized as structural, contextual, and behavioral. Within each of these obstacles, sub-components were identified as obstacles, totaling 46 items. It is ultimately recommended that food industries evaluate and study the identified obstacles of this research for the implementation of omnichannel. Additionally, these obstacles have been prioritized using the hierarchical analysis method.

Conclusion: The findings of the research indicated that the implementation of omnichannel in the export of food industries consistently faces obstacles, some of which are related to the organizational structure of exporting companies, some are within the human and behavioral dimensions of the workforce, and some are influenced by environmental factors. From this perspective, it can be stated that this research, with a comprehensive understanding of these obstacles, has paved the way for better implementation of omnichannel in the export sector of the food industries.

Keywords: *Obstacles to Implementation, Omnichannel, Food Industry Exports.*

1 Introduction

Today, consumer behavior has fundamentally changed due to the COVID-19 crisis, altering consumption patterns and the way customers access organizations and their products and services. With this shift in consumer behavior, marketing concepts have also evolved. During the COVID-19 crisis, three trends have emerged that will shape the future of customer engagement (Addo et al., 2020).

Generally, digitalization has been the most significant event in retail over the past few years. Digitalization has occurred in response to the increase in online shopping: during the pandemic, many retailers expanded their online customer base capacities by more than 10% (Alshaketheep et al., 2020). Additionally, social media has long become one of the primary retail marketing channels. According to Statista, over 40% of survey participants acknowledged that they spent more on messaging apps and social media in 2020. This development has transformed social media into a comprehensive shopping platform. Analysts predict a bright future for social commerce: the social commerce market is expected to grow by more than 30% annually on average and reach $604.5 billion by 2027 (Mainardes et al., 2020; Strohbehn et al., 2021).

The notion that customers should be prioritized over profits has long been popular, but today it is essential. The public expects brands not only to address their needs but also to engage in social responsibility. For instance, 90% of respondents in an Edelman study believed that brands should protect the health and well-being of their employees (He & Harris, 2020). According to a Harvard Business Review survey, 73% of customers use multiple channels during their shopping journey. The 2021 Commerce Status Report shows that almost half (44%) of B2C buyers and 58% of B2B buyers say they always or often research a product online before going to a physical store. Even when in-store, they continue to go online to further their research (Onjewu et al., 2022).

In this context, the COVID-19 pandemic has created winners and losers in retail. According to a Deloitte report, companies that successfully implemented omnichannel strategies were able to meet customer satisfaction and expectations effectively (Strohbehn et al., 2021). Indeed, the COVID-19 crisis has led to a sharp increase in digitalization in retail companies; however, entering the digitalization era has posed serious challenges for traditional businesses (Alshaketheep et al., 2020). Many companies still lack the necessary infrastructure to develop technically and create a network of connections between their internal systems to respond to high consumer demand. One of the most important strategies various companies have used to meet customer needs is providing omnichannel solutions (Shi et al., 2020). According to various reports, these solutions have significantly impacted the digital performance of different companies. Nonetheless, establishing an effective omnichannel system has faced serious challenges (Onjewu et al., 2022).

The biggest challenge today in creating an omnichannel system is establishing an agile and appropriate supply chain. This particularly means ensuring that the store plays an integral role in the supply chain for delivery to customers and handling returns (Cui et al., 2020). If this is not achieved, much potential revenue will be lost. Consequently, developing an omnichannel strategy requires a company-wide transformation involving most organizational functions (marketing, stores, sales, supply chain, and IT), and success cannot be achieved if only one area leads. This may be the most significant challenge in the omnichannel field. Creating system integration is indeed very difficult in this area.

Throughout 2020, it became clear that the demand for omnichannel systems increased sharply. Software companies (SaaS) significantly increased their offerings to support this market need, and logistics companies experienced exponential growth to provide omnichannel capabilities. Nonetheless, another challenge in establishing an omnichannel system is creating a suitable distribution chain, which has emerged as a serious challenge for many companies due to high demand (Mishra, 2021; Shah et al., 2006).

In a highly competitive landscape, adopting an omnichannel approach may lead to market advantages in attracting and retaining customers, as well as ensuring business continuity (Rusanen, 2019). Despite the numerous benefits of using omnichannel systems for service development, there are many limitations, often related to the readiness and maturity levels of organizations and companies in the retail sector (Jindal et al., 2021). Implementing a true omnichannel system at the company level requires a high degree of human and technological maturity, limiting access for many companies (Mainardes et al., 2020; Mishra, 2021).

However, the issue of omnichannel security arises in the context of implementing omnichannel in companies. The difficulties and challenges of implementing omnichannel have led to numerous practical issues. Although this concept has been theoretically implemented for many years, limited

research has been conducted on the challenges of its implementation, especially in Iran. This gap has created a research void. Therefore, this study aims to investigate the obstacles to implementing omnichannel in the export sector, focusing on the food industry.

2   Methods and Materials

This research employs both qualitative and quantitative methods. In the initial stage of identifying omnichannel implementation obstacles, a qualitative thematic analysis method was used. For prioritizing the obstacles, a quantitative hierarchical analysis method was applied. Additionally, this research is survey-based, utilizing survey tools such as interviews. Ultimately, this research can be categorized as exploratory and applied. The objective is to identify the main components and dimensions of the conceptual model under consideration, thus classifying it as exploratory research.

The statistical population of this research consists of experts in the food export industry to regional countries. These individuals must have experience in international trade, familiarity with electronic commerce concepts, and experience with either international or domestic digital marketing platforms. The snowball sampling method was used to select the sample, with a sample size of 12 individuals at the point of theoretical saturation. Data collection methods in this research include library and field methods. In the library section, studies and articles related to the topics discussed are reviewed. The field section involves interviews, where the initial qualitative interview is open-ended and aims to identify implementation obstacles from the experts' perspective. The identified codes were categorized and analyzed using Maxqda software. The average CVR of all identified codes was 89.4, and Cohen's kappa coefficient was 0.74, indicating acceptable validity and reliability of the coding tools. In the second part of the research, to rank the identified obstacles, a hierarchical analysis method was used based on experts' opinions from the qualitative phase. A pairwise comparison questionnaire was employed, with a consistency ratio of 0.08, indicating the consistency of the comparison matrix. Thus, the hierarchical analysis method was applied in this section.

3   Findings and Results

In this study, thematic analysis was used to examine and analyze the data. Initially, the demographic characteristics of the experts participating in the study are presented, followed by the identification of obstacles using thematic analysis. In this section, we analyze the information related to demographic variables. The gender distribution analysis revealed that 20% of respondents were women, and 80% were men. Regarding education, 60% held a bachelor's degree, and 40% had a master's degree or higher.

In this section, interviews conducted as audio files were fully transcribed to identify codes. The content of each transcript was accurately and comprehensively transferred to the MaxQDA software, where relevant meanings related to the main research question were extracted. Similar and related semantic units were grouped together and presented as codes. Below are some examples of interviews and extracted codes.

Table 1

Identification of Codes Based on Semantic Units

Obstacle Name	Interview with Food Industry Manager	Interviewee Number
Low Skill Level of Human Resources	One of our fundamental issues is that some of our employees lack the necessary skills for successfully implementing this strategy. This issue causes delays in project execution and a decline in service quality.	12
Lack of Awareness and Training	This is a significant issue for us. Without proper training, employees cannot utilize new technologies and fully participate in the implementation process.	12
Mismatch Between Human Resource Characteristics and Job Requirements	This is one of the main issues. In some cases, our personnel may not be suitable for specific tasks, which leads to inefficiency in the process.	8
Inability of Human Resources to Adapt	This problem continually presents challenges for us. The ability of human resources to adapt to changes is crucial.	11
Low Technological Proficiency of Human Resources	The low technological proficiency of human resources is one of our main obstacles in implementing the omnichannel strategy. Most of our employees are not sufficiently familiar with new technologies and information systems. This limits our performance in this area and causes delays.	10
Different Customer Purchase Experiences	Different customer purchase experiences are a significant obstacle. Customers have different online and offline buying habits, necessitating changes in our approach to customer service. These changes present challenges that must be managed.	8

Low Customer Interaction Skills	Low customer interaction skills are another problem. Implementing the omnichannel strategy means effectively communicating with customers across various channels. We need the ability to interact effectively with customers in different areas, which some of our employees lack.	8
Resistance to Change	Resistance to change is a fundamental obstacle. Many employees may resist and perceive changes as a threat to their current status. This makes implementing the omnichannel strategy problematic, requiring suitable change management skills.	11
Software and Marketing Proficiency	Software and marketing proficiency are essential skills for implementing the omnichannel strategy. Some employees may lack sufficient skills in using software and marketing, making it more challenging to perform certain tasks.	12

In this stage of thematic analysis, the codes were reviewed based on their relationships and similar concepts. Duplicate codes were removed.

To ensure the validity of the codes and the accuracy of the coding stages and subcategory identification, experts were contacted again. They provided their opinions on the agreement or disagreement with the extracted subcategories.

For this survey, the CVR formula was used, and the index value for each subcategory is reported as a percentage.

Based on Lawshe and colleagues' table, with the opinions of 12 experts, a value above 0.56 or 56% indicates the validity of the subcategory. The Cohen's kappa coefficient in this study was calculated to be 0.69, indicating the appropriate reliability of the research tool in this section.

Table 2

Extraction of Subcategories from Identified Codes

Main Dimensions	Subcategory Name	CVR
Behavioral	Low Skill Level of Human Resources	100
	Lack of Awareness and Training	95
	Mismatch Between Human Resources and Job Requirements	100
	Inability of Human Resources to Adapt	87
	Low Technological Proficiency of Human Resources	92
	Different Customer Purchase Experiences	100
	Low Customer Interaction Skills	100
	Resistance to Change	100
	Software and Marketing Proficiency	86
	Work Stress and Pressure	100
	Low Employee Motivation	83
	Weak Time Management	98
Contextual	Change in Customer Habits	100
	Cultural Mismatch	96
	Changes in Supply Chain	100
	Legal and Regulatory Changes	100
	Market Competition	100
	Market Supply and Demand Changes	87
	Technology Level Changes	89
	Weak Communication with External Systems	87
	Continuous Changes in Social Databases	95
	Continuous Price Changes	100
	Continuous Economic and Market Policy Changes	87
	Entry of New Competitors	100
Structural	Lack of IT Infrastructure	100
	Security Concerns	100
	Advertising and Marketing Problems	98
	Inability to Integrate Channels	87
	Financial Problems	100
	Management Problems	100
	System Incompatibility	100
	Organizational Culture Barriers	87
	Lack of Structural Agility	88
	Lack of Process Agility	100
	Weak Inventory Management	100
	Uniform User Experience	100
	Weak Customer Relationship System	100

Weak Interaction with Social Networks	87
Weak Back-End Software Capabilities	100
Weak Customer Data Evaluation	95
Weak Cost Management	100
Weak Inter-Departmental Data Sharing	100
Incompatibility with Technological Changes	100
Weak Project Management	100
Lack of Management Support	100
Product-Oriented Approach Instead of Market Orientation	100

In this stage, the subcategories were revisited, and re-evaluation was conducted based on semantic and conceptual similarities. Subcategories were grouped into three main categories. If a subcategory did not belong to any of these groups, a new category was created. Thus, subcategories were classified into three main categories. The table below lists the concepts of each category along with the number of occurrences. Based on this criterion, 46 subcategories were identified and classified into these three categories.

Finally, for prioritizing the identified indicators in the previous sections, a comprehensive expert opinion summary was used to rank the criteria and obstacles to omnichannel implementation in the food industry, presented in Table 3.

Table 3

Prioritization of Obstacles to Omnichannel Implementation

Rank	Criterion Name	Criterion Weight
1	Advertising and Marketing Problems	0.057526
2	Management Problems	0.050482
3	Low Skill Level of Human Resources	0.049896
4	Inability to Integrate Channels	0.046960
5	Financial Problems	0.045786
6	Lack of Awareness and Training	0.045672
7	System Incompatibility	0.042264
8	Mismatch Between Human Resources and Job Requirements	0.031944
9	Weak Interaction with Social Networks	0.031698
10	Inability of Human Resources to Adapt	0.030360
11	Weak Back-End Software Capabilities	0.026415
12	Cultural Mismatch	0.025926
13	Weak Inventory Management	0.025828
14	Lack of Structural Agility	0.025241
15	Market Competition	0.025032
16	Low Technological Proficiency of Human Resources	0.023496
17	Lack of IT Infrastructure	0.023480
18	Uniform User Experience	0.022893
19	Changes in Supply Chain	0.021605
20	Lack of Process Agility	0.021132
21	Different Customer Purchase Experiences	0.020856
21	Low Customer Interaction Skills	0.020856
22	Weak Cost Management	0.020545
23	Lack of Management Support	0.018197
24	Security Concerns	0.016436
25	Incompatibility with Technological Changes	0.015849
25	Weak Project Management	0.015849
26	Product-Oriented Approach Instead of Market Orientation	0.014675
27	Weak Communication with External Systems	0.013708
28	Weak Inter-Departmental Data Sharing	0.013501
29	Resistance to Change	0.012672
30	Technology Level Changes	0.010877
31	Legal and Regulatory Changes	0.010430
32	Software and Marketing Proficiency	0.010296
33	Organizational Culture Barriers	0.009979

IJIMOB

Saleh et al.   International Journal of Innovation Management and Organizational Behavior 4:4 (2024) 179-186

34	Continuous Changes in Social Databases	0.008642
35	Market Supply and Demand Changes	0.008046
36	Continuous Price Changes	0.007599
37	Entry of New Competitors	0.006705
38	Continuous Economic and Market Policy Changes	0.006109
39	Weak Time Management	0.006072
40	Work Stress and Pressure	0.005808
40	Low Employee Motivation	0.005808
41	Change in Customer Habits	0.004470

As shown in Table 3., based on the goal, advertising and marketing problems ranked first. The subsequent ranks were management problems, low skill level of human resources, inability to integrate channels, financial problems, lack of awareness and training of human resources, system incompatibility, mismatch between human resources and job requirements, weak interaction with social networks, inability of human resources to adapt, weak back-end software capabilities, cultural mismatch, weak inventory management, lack of structural agility, market competition, low technological proficiency of human resources, lack of IT infrastructure, uniform user experience, changes in the supply chain, lack of process agility, different customer purchase experiences, weak cost management, lack of management support, security concerns, incompatibility with technological changes, product-oriented approach instead of market orientation, weak communication with external systems, weak inter-departmental data sharing, resistance to change, technology level changes, legal and regulatory changes, software and marketing proficiency, organizational culture barriers, continuous changes in social databases, market supply and demand changes, continuous price changes, entry of new competitors, continuous economic and market policy changes, weak time management, work stress and pressure, and change in customer habits.

4   Discussion and Conclusion

In summary, omnichannel marketing is a strategic approach aimed at providing a seamless and unified customer experience across multiple channels and touchpoints. The goal is to create a consistent and integrated brand experience, regardless of whether customers interact with a company through online or offline channels. This approach recognizes the change in consumer behavior, where individuals often switch between devices and platforms throughout their shopping journey. In essence, omnichannel marketing is a customer-centric strategy acknowledging the diverse ways consumers engage with

brands today. By offering a consistent and integrated experience across channels, companies can build stronger relationships with their customers and enhance overall satisfaction and loyalty.

However, one of the main topics in this field is the obstacles to implementing this concept in various industries. The primary objective of this study was to identify and rank these obstacles in the food industry. Overall, this study identified 46 components categorized into three main themes: structural, behavioral, and contextual factors. Studies (Mishra, 2021; Rusanen, 2019) also discussed structural and behavioral obstacles related to omnichannel implementation. Additionally, studies (Mainardes et al., 2020; Shi et al., 2020) focused on environmental-related obstacles, supporting the theoretical foundation of this study's results.

The findings of this study indicated that advertising and marketing problems ranked first in the prioritization of these obstacles. Subsequent ranks were management problems, low skill level of human resources, inability to integrate channels, financial problems, lack of awareness and training of human resources, system incompatibility, mismatch between human resources and job requirements, weak interaction with social networks, inability of human resources to adapt, weak back-end software capabilities, cultural mismatch, weak inventory management, lack of structural agility, market competition, low technological proficiency of human resources, lack of IT infrastructure, uniform user experience, changes in the supply chain, lack of process agility, different customer purchase experiences, weak cost management, lack of management support, security concerns, incompatibility with technological changes, product-oriented approach instead of market orientation, weak communication with external systems, weak inter-departmental data sharing, resistance to change, technology level changes, legal and regulatory changes, software and marketing proficiency, organizational culture barriers, continuous changes in social databases, market supply and demand changes, continuous price changes, entry of new competitors, continuous economic and market policy

changes, weak time management, work stress and pressure, and change in customer habits.

After evaluating and identifying the categories and subcategories, the final model was identified in three dimensions: structural, conceptual, and contextual obstacles. Based on this, strategies can be used to overcome these obstacles in the implementation of omnichannel retail systems. It is recommended that in the organizational structure of exporting companies, operations should be implemented to ultimately create structural coordination within these companies, as one of the main obstacles is the lack of structural flexibility and omnichannel. Additionally, training and raising awareness among human resources and managing human resources to develop behavioral performance can ultimately strengthen the omnichannel system in export retail. On the other hand, identifying environmental factors and considering environmental conditions can help create suitable infrastructure from the perspective of environmental support, ultimately enabling coordinated and personalized service implementation for customers in this industry.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

References

Addo, P. C., Jiaming, F., Kulbo, N. B., & Liangqiang, L. (2020). COVID-19: fear appeal favoring purchase behavior towards personal protective equipment. *The Service Industries Journal*, *40*(7-8), 471-490. https://doi.org/10.1080/02642069.2020.1751823

Alshaketheep, K., Salah, A. A., Alomari, K. M., Khaled, A. S., & Jray, A. (2020). Digital marketing during COVID 19: Consumer's perspective. *WSEAS Transactions on Business and Economics*, *17*(1), 831-841. https://www.researchgate.net/profile/Khalid-Alomari/publication/345496962_Digital_Marketing_during_COVID_19_Consumer's_Perspective/links/5fbd517a299bf10 4cf740a03/Digital-Marketing-during-COVID-19-Consumers-Perspective.pdf

Cui, T. H., Ghose, A., Halaburda, H., Iyengar, R., Pauwels, K., Sriram, S., Tucker, C., & Venkataraman, S. (2020). Informational Challenges in Omnichannel Marketing: Remedies and Future Research. *Journal of Marketing*, *85*(1), 103-120. https://doi.org/10.1177/0022242920968810

He, H., & Harris, L. (2020). The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research*, *116*, 176-182. https://www.sciencedirect.com/science/article/pii/S01482963 20303295

Jindal, R. P., Gauri, D. K., Li, W., & Ma, Y. (2021). Omnichannel battle between Amazon and Walmart: Is the focus on delivery the best strategy? *Journal of Business Research*, *122*, 270-280. https://www.sciencedirect.com/science/article/pii/S01482963 20305658

Mainardes, E. W., Rosa, C. A. d. M., & Nossa, S. N. (2020). Omnichannel strategy and customer loyalty in banking. *International Journal of Bank Marketing*, *38*(4), 799-822. https://doi.org/10.1108/IJBM-07-2019-0272

Mishra, R. (2021). An analysis of factors influencing omnichannel retailing adoption using ISM-DEMATEL approach: an Indian perspective. *International Journal of Retail & Distribution Management*, *49*(4), 550-576. https://doi.org/10.1108/IJRDM-03-2020-0108

Onjewu, A.-K. E., Hussain, S., & Haddoud, M. Y. (2022). The Interplay of E-commerce, Resilience and Exports in the Context of COVID-19. *Information Systems Frontiers*, *24*(4), 1209-1221. https://doi.org/10.1007/s10796-022-10342-w

Rusanen, O. (2019). Crafting an Omnichannel Strategy: Identifying Sources of Competitive Advantage and Implementation Barriers. In W. Piotrowicz & R. Cuthbertson (Eds.), *Exploring Omnichannel Retailing: Common Expectations and Diverse Realities* (pp. 11-46). Springer International Publishing. https://doi.org/10.1007/978-3-319-98273-1_2

Shah, D., Rust, R. T., Parasuraman, A., Staelin, R., & Day, G. S. (2006). The Path to Customer Centricity. *Journal of Service Research*, *9*(2), 113-124. https://doi.org/10.1177/1094670506294666

Shi, S., Wang, Y., Chen, X., & Zhang, Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach.

IJIMOB

Saleh et al.   International Journal of Innovation Management and Organizational Behavior 4:4 (2024) 179-186

International Journal of Information Management, *50*, 325-336. https://doi.org/10.1016/j.ijinfomgt.2019.09.001

Strohbehn, G. W., Heiss, B. L., Rouhani, S. J., Trujillo, J. A., Yu, J., Kacew, A. J., Higgs, E. F., Bloodworth, J. C., Cabanov, A., Wright, R. C., Koziol, A. K., Weiss, A., Danahey, K., Karrison, T. G., Edens, C. C., Bauer Ventura, I., Pettit, N. N., Patel, B. K., Pisano, J., . . . Reid, P. D. (2021). COVIDOSE: A Phase II Clinical Trial of Low-Dose Tocilizumab in the Treatment of Noncritical COVID-19 Pneumonia. *Clinical Pharmacology & Therapeutics*, *109*(3), 688-696. https://doi.org/10.1002/cpt.2117