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Research Article

Developing a Supply Chain Model with a Mixed Marketing Approach that Affects Consumer Behavior in the Automotive Industry using a Qualitative Thematic Analysis Method

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ABSTRACT

The present study aimed to investigate the development of a supply chain model with a mixed marketing approach that affects consumer behavior in the automotive industry in 1402. The statistical population of the study was all senior managers of Saipa Automotive Company. Purposive and snowball sampling was carried out and 12 interviews were finally collected. The validity and reliability of the interviews and questionnaires were confirmed using expert opinion and Holst coefficient. Thematic analysis was used to investigate the research objectives and identify themes, blocks, main and sub-themes.

The results of the interviews with experts were coded and analyzed in MAXQDA2020 software. In the theme analysis stage, considering that the researcher's chosen method for analysis is the theme network, the overarching, organizing and basic themes were considered by creating a contrast between the experts' opinions and the topics expressed in the experts' group opinions, and the necessary amendments were made to improve the validity of the research. The results indicated the identification of 5 blocks of suppliers (with 5 main themes and 26 sub-themes), distributors (4 main themes and 21 sub-themes), manufacturers (5 main themes and 23 sub-themes), support and logistics (5 main themes and 25 sub-themes) and environment (5 main themes and 30 sub-themes).

Keywords: supply chain, integrated marketing, consumer behavior, automotive industries.

1- Introduction

Applying appropriate attitudes and criteria in supplier selection is of great importance in the decision-making process of supply chain managers, especially purchasing managers (Wang and Zhang, 2021).

A supply chain is the movement of materials from their source to the final customer. According to Christopher, a supply chain creates value in the form of products and services to final customers through various processes and activities, which are carried out by a network of organizations from upstream and downstream relationships (Kumar and Anbanandum, 2022).

In fact, a supply chain is a network of organizations and processes in which a number of different companies (suppliers, manufacturers, distributors, and retailers) cooperate along the entire value chain to obtain raw materials, to transform these raw materials into specific final products, and to provide these final products to customers (Ivanov et al., 2024).

Today, organizations are aware of the importance of the advantages of the supply chain and its management. In this regard, supply chain coordination is one of the effective approaches in establishing competitive advantages for organizations (Akbarzadeh, 2018). One of the most fundamental factors of sustainability and durability in today's competitive environment is reducing the costs of product production. Determining competent and appropriate suppliers can significantly reduce production costs and increase the competitiveness of the organization; because in many industries, the cost of raw materials and product components includes an important part of the product's cost

(Mohammadi and Mohammadi, 2018). Therefore, the issue of supplier selection should be considered as an important issue in the strategic decisions of these types of companies (Homayunfar et al., 2018). Proper supply chain performance plays an important role in the benefit of an organization and the sustainable achievement of goals, especially its profitability. In parallel with this, it is recommended to establish a supply chain assessment system to identify weaknesses and continuously improve it.

It seems that having a clear view and a complete understanding of the current supply chain structure and the current way of performing all activities related to it is essential before starting the improvement process. Therefore, we need a strong and comprehensive tool to support and support supply chain assessment and understanding (Kumar and Anbanandum, 2022). Accordingly, supply chain assessment has become an important topic in supply chain management; In such a way that evaluating a chain provides managers with the appropriate knowledge and information regarding how it is performing to plan to achieve the intended goals, and on the other hand, evaluating a chain can play an important role in performance management, providing information on progress measurement, increasing motivation, and finally, revising the intended goals (Akbarzadeh, 2018). In order to improve competitiveness, supply chains are trying to adopt new paradigms of supply chain management, among which in the last two decades, four paradigms of lean, agile, resilient, and green have received more attention as the main paradigms in the fields of industry and business due to their importance in better supply chain performance (Akbarzadeh, 2018).

One of the main challenges in many industries is the formation of a large competitive supply chain. Therefore, the approach of the continuity of the lean, agile, resilient and green paradigms can balance the incompatibility between them and achieve a high competitive power (Aboye, Mehrrizi and Shahbazi, 2010).

Paying attention to green issues in the supply chain is one of the methods that is largely derived from the performance of their suppliers; therefore, evaluating and selecting green suppliers is considered a strategic decision in order to be present in highly competitive markets and maintain the social position of companies (Homayunfar et al., 2018).

The issue of concern is that our country's industries have been affected by these disadvantages. In particular, the automotive industry has advantages among all other industrial activities that place it in the category of industrial priorities of the country. This industry is highly dependent on the supply chain (Qazizadeh et al., 2015).

One of the most important issues that humanity has always faced is decision-making. Since the organization's resources are limited and a competitive environment dominates the industry of the world today, making correct and timely decisions that will enable organizations to achieve strategic goals and ultimately realize the organizational vision is very important and necessary. Therefore, decision-makers in the industry are looking for methods that help in choosing the best decision and option. Multi-criteria decision-making is one of the methods that is constantly increasing in the amount and expansion of their application in the industry. One of the cases of using these methods in the industry can be mentioned in the selection of suppliers, logistics, production technology, repairs and maintenance, choosing to manufacture or purchase a part, outsourcing, selecting people at management levels, determining the type of product to be produced in the future, marketing, etc. (Choi and Cheng, 2023).

Every research seeks to answer questions, identify unknowns, solve an objective or subjective problem, or approach a truth. Therefore, considering the aforementioned issues and summarizing them in the following form, the research problem of supply chain composite modeling is considered in order to evaluate the chain elements with a marketing approach on consumer behavior.

Large supply chain management includes the simultaneous use of lean, agile, flexible, and green approaches in supplier relationship management. This method of supply chain management helps the organization to use the advantages of superior approaches in this field simultaneously. It also covers their shortcomings while taking advantage of the advantages of each of them. In lean supply chain management, the effort is to reduce the inventory level to zero. Agile supply chain management sets its goal on immediate response to the customer and the market. Resilient supply chain management seeks to protect the supply chain in the event of unforeseen incidents and challenges, and ultimately the green approach seeks to protect nature and the environment from direct and indirect waste (Christopher and Peck, 2020).

The simultaneous application of agility, leanness, flexibility, and greenness of the supply chain is a very attractive idea. For this reason, there are extensive academic studies and theoretical foundations in this field. On the other hand, such an idea has also attracted managers and industry activists. However, the key question is whether it is really possible to apply these approaches simultaneously in practice? How much can we hope for this approach in the field of industries and practice? This article seeks to bridge the gap between theoretical (scientific) foundations and applied (practical) principles in the field of large supply chains.

The hybrid supply chain with the LARG approach, considering the combination of supply chain models and the concept of a closed-loop supply chain, has attracted a lot of attention today as a result of the recognition that both reverse and direct supply chains require joint management. The configuration of both reverse and direct supply chain networks has a great impact on the performance of each flow. Therefore, in order to avoid sub-optimalities resulting from separate designs, the design of direct and reverse networks should be integrated. In a closed-loop supply chain, in addition to the usual flow of goods from the supplier to the final consumers, the reverse flow of products for recycling, remanufacturing or destruction of products is also considered (Mohammadi and Mohammadi, 2018).

Closed-loop supply chains, by offering diverse products at different quality levels, have a great impact on improving the overall performance of the supply chain by increasing profits, increasing production, and increasing customer satisfaction (Farahani et al., 2013). High economic savings and significant profitability in the field of closed-loop supply chains, along with the great environmental and human importance of this field, have prompted a large number of researchers to investigate and study this area further. From a theoretical and scientific perspective, the more uncertainty is added to the problem, the more complex the problem becomes and the more difficult it is to optimize. Considering stability and uncertainty, from a scientific perspective, the task becomes more complex. From this perspective, we are facing a challenge due to the scientific and mathematical development of this issue. As a result, the research problem is valuable from this perspective. It can also be noted that although reducing disruption is a significant research topic in the supply chain, little research has been conducted on reducing supply chain disruption. In many of these studies, disruption in a production-inventory system has been addressed. They have also examined production and distribution disruption separately. In this study, disruption in production and distribution will be addressed. From a practical point of view, the chance of simultaneous transportation and production disruption is high, especially if incidents such as earthquakes occur. As a result, considering production and transportation disruption becomes relevant from a practical perspective.

A very important issue to consider is what factors or what methods help empower the supply chain in order to make the supply chain perform better and become more sustainable. Among the different paradigms of supply chain management, lean, agile, resilient and green paradigms ensure sustainability in the supply chain. Ruiz Benitez, Lopez and Riel (2019) believe that lean methods help improve sustainability. Azevedo, Carvalho, Durat, and Cruz Machado (2012) consider lean and green practices as very important pillars of sustainable business development. Azevedo et al. (2016) believe that the use of agile and resilient practices affects sustainability and improves performance in relation to sustainability. The simultaneous integration of lean, agile, resilient, and green paradigms in supply chain management helps to make the supply chain more efficient, effective, and sustainable. Most researchers have confirmed the use of lean, agile, resilient, and green paradigms to improve supply chain performance. In this regard, the importance of a hybrid supply chain model with a marketing approach and a consumer perspective is essential.

2- Theoretical foundations and research background

Supply chain

A supply chain includes all stages (chain members) that directly or indirectly contribute to the fulfillment of a customer's demand. In a typical supply chain, raw materials are shipped from suppliers to factories, then the products produced in the factory are shipped to intermediate warehouses and distribution warehouses, and from there to retailers and finally to the final customer or consumer (Choi and Cheng, 2033).

A product then travels through the chain until it reaches the consumer. At some of these stages, the product is stored and at others it is transported; that is, a supply chain is a set of storage and transportation.

Supply chain management is all the activities that go from procurement and production to distribution and delivery to the customer, or from another perspective, from customer demand to after-sales service, and ideally begins with the production of raw materials and ends with the recycling of the final product or disposal (Wang and Cheng, 2021).

Lean is a term often used in connection with manufacturing, meaning a zero-inventory, just-in-time approach.

Being lean means creating a value stream to eliminate all waste, including time and ensuring a schedule (Wang and Cheng, 2021).

Agile supply chain is a dynamic capability that allows an organization to be responsive in a changing and uncertain business environment and to stabilize its position in the market.

De Rosario Cabreta, Duarte, Carvalho, and Machado (2016) Supply chain agility refers to the extent to which an organization is able to produce and deliver new products to customers in a timely and appropriate manner.

Resilient Supply Chain

The dictionary definition of resilience is “the ability of a material to return to its original state after being deformed” by stretching, bending, and compression. Resilience is the ability of a supply chain to overcome unpredictable events (Wang and Cheng, 2021).

Introduced by the Michigan State University Industrial Research Association in 1996, green supply chain management is a new management model for environmental protection. Through green supply chain management and technology, a company can reduce negative environmental impacts and achieve the optimal use of resources and energy. Green supply chain management can reduce the environmental impact of industrial activities without sacrificing cost, quality, reliability, performance, and environmental impact. If environmental regulations are complied with, environmental damage and damage are reduced and economic benefits are generated.

Large Supply Chain Management

Recently, lean, agile, resilient, and green (LARGE) strategies have been observed to be combined to achieve fruitful results (Feng et al., 2018). The word LARGE is formed by combining the first letters of the Latin words for the four supply chain approaches: lean, agile, resilient, and green. The idea of large supply chain management was formed and developed at the Mechanical and Industrial Engineering Research Unit of the Faculty of Science and Technology of the New University of Lisbon. This research unit is currently recognized as the main reference in this field. Each of these approaches has advantages and disadvantages. Applying the advantages of these approaches and planning to eliminate the disadvantages of each increases the potential for value creation in the supply chain.

In a study, Fisher et al., (2023) investigated the effect of product variety management on supply chain performance with the mediating role of supply chain flexibility and agility. This study is applied in terms of purpose and descriptive in terms of research method and correlational in that it has been presented a new model in the field of factors affecting supply chain performance by utilizing theoretical and empirical foundations. For this purpose, the researcher has collected data by distributing questionnaires with a five-point Likert scale among manufacturing companies, and the results of structural equation modeling have confirmed that supply chain flexibility and agility are important and effective factors in the relationship between the impact of product diversity management and supply chain performance. The findings also confirmed that the product diversity management strategy has had a significant positive effect on supply chain flexibility and supply chain agility, and on the other hand, supply chain flexibility has shown a significant effect on cost efficiency and supply chain agility on cost efficiency.

Aziat et al. (2018) studied the impact of IT competencies and operational competencies on supply chain agility: Findings from a textile manufacturer. The data collection tool was a questionnaire that was administered to a total sample of 60 executives, directors, managing directors, managers, and senior staff from 15 textile and apparel companies in southern Malaysia. The response rate was 63.3%, with only 38 respondents responding to the research questionnaire. The sample selection was based on purposive sampling. The data were analyzed using mean, standard deviation, and correlation between independent and dependent variables. The analysis included statistical methods such as reliability, normality, and non-parametric correlation. The findings showed that IT competencies and operational competencies were positively related to supply chain agility, respectively.

3- Methodology

This is an applied study that was conducted in a descriptive-survey and cross-sectional manner. To obtain basic concepts such as the influential components in the automotive industry supply chain, library resources, consultation with organizational and executive experts and consulting organizations, databases, websites of reputable global organizations, etc. were used. The result of this stage was the development of a conceptual model of the large supply chain in the automotive industry through an exploratory mixed study. The first source of data collection for the research was interviews with 12 experts in the supply chain in the Iranian automotive industry. The interviews were conducted in a semi-structured manner. In these interviews, an attempt was made to arouse the sensitivity of the experts in this field to the subject and force them to think and express their thoughts and concerns. The researcher's implicit guidance regarding some factors affecting the large supply chain with a mixed marketing approach enriched the dimensions presented in the model. At the end of the sessions, the interviewee was asked to state if they had anything else to say about the subject of the study. Therefore, the interview continued until data saturation was reached. Then, the text of the 12 interviews was entered into the MAXQDA2020 software as a text file. In the theme analysis stage, considering that the researcher's chosen method for analysis is the theme network, the overarching, organizing, and basic themes were considered by creating a contrast between the experts' opinions and the topics expressed in the experts' group opinions, and the necessary corrections were made to improve the validity of the research. To achieve this research goal, the interview texts were studied repeatedly and their key points were broken down into semantic units in the form of sentences and paragraphs related to the main meaning. After coding the data, the main (main) themes and sub-themes within them were extracted.

4- Findings

To analyze the texts extracted from the interviews, the theme analysis method, which is used in qualitative research, was used. Theme analysis is a qualitative method for determining, analyzing, and expressing the patterns (themes) within the information. First, the texts collected from semi-structured interviews with experts and senior managers of Saipa were analyzed using the coding method. These individuals have at least a master's degree and between 15 and 30 years of work experience in the supply chain field. The coding process was carried out at 4 levels; in level one coding, we accessed key phrases or indicators (codes), in level two coding, we accessed blocks, in level three coding, we reached sub-themes, and in level four coding, we reached the main themes.

The main blocks identified from the interviews in presenting the Large Supply Chain Model and Pattern with an effective mixed marketing approach in the automotive industry were as follows:

1- Suppliers Block

2- Manufacturers Block

3- Distributors Block

4- Support and Logistics Block

5- Environmental Block

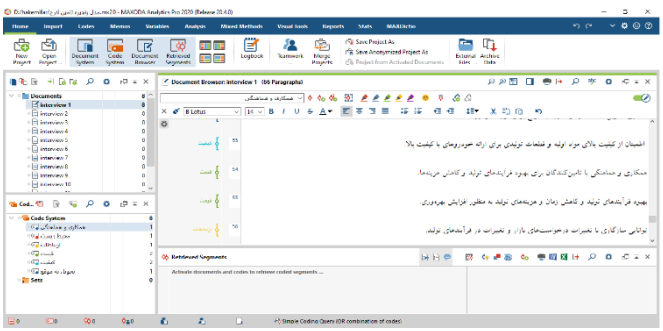

Figure 1: Example of coding in MAXQDA software

Table 1 shows an example of coding concepts in the Suppliers block.

Table (1): Example of coding concepts in the Suppliers block

Keynote speech	Sub-theme	Main theme
The quality of raw materials used in the production of parts is very important. Suppliers must provide high quality materials that meet industry standards.	Quality of raw materials	Quality
Using appropriate technology and equipment in the parts production process improves the quality and accuracy of parts.	Use of appropriate technology and equipment	
The cost of producing a part includes the costs of raw materials, labor, machinery, energy, and other costs related to the production of the product. The higher the production cost, the higher the final price of the part.	Production cost	Price
Market supply and demand also affect the pricing of parts. If demand for a part is high and supply is low, its price will go up.	Supply and demand	

The following is a review of the concepts that make up the theme analysis.

One of the pillars of the large supply chain with an effective mixed marketing approach that was extracted through interviews with experts was the suppliers block. This block included 5 main themes of quality (with 5 sub-themes of raw material quality, use of appropriate technology and equipment, training and empowerment of employees, human resource management and compliance with quality standards), price (with 6 sub-themes of production cost, demand and supply, market competition, geographical location, production technology and added value), timely delivery of parts (with 6 sub-themes of production ability, effective communication, contract adherence, inventory management, innovation and improvement and financial sustainability), innovation (with 6 sub-themes of close relationships with automobile manufacturers, research and development ability, collaboration and coordination, use of advanced technologies, competition with other suppliers and financial ability) and communications (with 3 sub-themes of flexibility, security and transparency).

One of the pillars of the large supply chain with an effective mixed marketing approach that was extracted through interviews with experts was the manufacturers block. This block included 5 main themes: quality (with 5 sub-themes: technical characteristics, product performance and safety, product testing and evaluation, research and development and compliance with quality standards), on-time delivery (with 5 sub-themes: careful planning, quality control, strong communication, monitoring and control of activities and inventory management), price (with 4 sub-themes: raw material price capability, production cost, research and development costs and marketing costs), innovation (with 6 sub-themes: research and development, cooperation with suppliers, supply chain management, production processes, flexibility and competitiveness) and collaboration (with 3 sub-themes: effective communication, information and transparency and reliability).

One of the pillars of a large supply chain with an effective mixed marketing approach that was extracted through interviews with experts was the distributor block. This block included 4 main themes: after-sales service (with 5 sub-

themes: product training and familiarization, access to spare parts, technical support, speed and accuracy in shipping, and ability to communicate with customers), strong distribution network (with 5 sub-themes: selection and management of distributors, speed and reliability in distribution, inventory management ability, information technology, and flexibility), cooperation with manufacturers (with 5 sub-themes: effective communication, coordination of demand and supply, sharing knowledge and information, trust, and setting common goals), experience and expertise (with 6 sub-themes: training and preparation, close relationships with manufacturers, use of technology, networking, customer feedback, and cooperation with other distributors).

One of the pillars of the large supply chain with an effective mixed marketing approach that was extracted through interviews with experts was the support and logistics block. This block included 5 main themes of experience and training (with 5 sub-themes of technical skills training, use of management software, holding training courses, interaction with manufacturing companies and organizational culture), effective communication (with 5 sub-themes of daily communication, division of tasks, use of project management software, providing feedback and encouraging cooperation), coordination ability (with 4 sub-themes of coordination in planning, use of technology, training and development and coordination in the production process), use of technology (with 5 sub-themes of training and awareness, modern equipment and software, organization of processes, effective cooperation and communication and technical support) and adherence to standards (with 6 sub-themes of training and awareness, strong leadership, organizational culture, equipment and technology, evaluation and feedback and coordination and cooperation).

One of the pillars of the large supply chain with an effective mixed marketing approach that was extracted through interviews with experts was the environmental block. This block includes 5 main themes: using sustainable raw materials (with 6 sub-themes: using recycled materials, using raw materials with the lowest environmental impact, using recyclable raw materials, developing new technologies, promoting awareness and training, and collaborating with sustainable suppliers), reducing waste production (with 6 sub-themes: using recycled materials, utilizing new technologies, increasing product life, training employees, using recyclable packaging, and creating a recycling system), using sustainable energy (with 6 sub-themes: using renewable energy sources, optimizing production processes, electric vehicles, recycling and reusing parts, using high-performance materials, and training and awareness), improving environmental standards (with 7 sub-themes: reducing energy consumption, recycling materials, using renewable resources, reducing air pollution, waste management, training and awareness, and evaluation and monitoring), and supporting sustainable companies (with 5 sub-themes: committing to using high-quality and environmentally friendly materials, creating sustainable production processes and eliminating industrial waste, providing appropriate training to employees). and suppliers in the field of environmental protection, cooperation with relevant organizations in the field of environmental protection, and interaction with customers to provide sustainable and environmentally friendly services and products.

5- Conclusion

Creating a supplier block in a large supply chain with an effective mixed marketing approach can be effective through the following factors.

- Reducing production costs: By creating a supplier block, automotive companies can reduce their production costs and, as a large customer, receive significant discounts from their suppliers.

- Increasing product quality: Although manufacturers can use new technologies, with a supplier block, they can easily access high-quality raw materials and increase the quality of their products.

- Reducing production risks: With a supplier block, automotive companies can reduce their production risks and increase the sustainability of their supply chain.

- Increasing reliability: With a supplier block, automotive companies can easily use other suppliers and quickly switch to other suppliers in case of a problem with one supplier.

- Increased Competitiveness: With the presence of supplier blocs, automotive companies can easily enter new market segments and expand their market by increasing their competitive ability.

Suggestions for creating supplier blocs

- Creating a communication network between manufacturers, suppliers and buyers using new technologies such as the Internet of Things and hyper-grids.

- Encouraging manufacturers to develop long-term relationships with suppliers and improve contractual conditions for them.

- Encouraging suppliers to develop new technologies and improve the quality of their products.

- Creating strong financial and accounting systems to pay suppliers on time.

- Creating independent systems to evaluate supplier performance and encourage them to improve their performance.

- Providing financial and technical support to suppliers to develop new technologies and improve the quality of their products.

- Encouraging manufacturers to establish direct relationships with suppliers and improve contractual conditions for them.

- Encouraging manufacturers to create supplier blocs to improve quality and reduce costs.

-Develop independent systems to assess the quality and performance of suppliers and encourage them to improve their performance.

-Create independent systems to monitor and predict market changes and encourage manufacturers to develop new technologies and improve the quality of their products.

Creating a block of manufacturers in the large supply chain with an effective combined marketing approach through the following factors can be effective.

The manufacturer block in the supply chain is used as a new and innovative method in supply chain management to improve efficiency and reduce costs. In the automotive industry, the manufacturer block is used as one of the management methods to improve quality and reduce production costs.

The manufacturer block in the large supply chain means forming smaller groups of supplier companies in cooperation and coordination to produce and supply products to the automotive company. In this method, the automotive company cooperates with several manufacturer blocks and each manufacturer block is responsible for a part of the production line.

By using the manufacturer block in the supply chain, the automotive company can achieve quality improvement and production cost reduction. This method allows the automotive company to cooperate more effectively with supplier companies and take the necessary measures to reduce production costs, use competitive prices and improve product quality.

Given that the automotive industry in Iran is one of the most investment-intensive industries, the use of blockchain in the large supply chain can improve efficiency and reduce production costs, and as a result, accelerate the development and growth of this industry.

Suggestions for creating blockchain

- Creating a communication network between manufacturers, suppliers, and customers in order to improve coordination and increase efficiency in the supply chain.

- Encouraging manufacturers to create blockchains by providing financial and tax facilities.

- Providing necessary training to manufacturers and suppliers in the field of blockchain technology and its use in the supply chain.

- Using blockchain technology to track and monitor automotive parts and raw materials.

- Encouraging manufacturers to participate in new research and development projects and providing the necessary support in this field.

- Providing the necessary support to startup companies active in the field of blockchain and the automotive industry.

- Encouraging the creation of strategic partnerships between manufacturers and suppliers with the aim of improving the quality and efficiency of the supply chain.

Distributors Block is one of the important factors in the supply chain, which is also very important for the automotive industry. According to the mixed marketing approach, distributors block can have various effects on the supply chain and the automotive industry.

The first effect of distributors block in the supply chain is to improve the quality of products. By using distributors block, automotive companies can easily control which stores their products are sent to and these stores must also comply with the standards specified by the automotive company. This increases the quality of products and customer trust in the automotive brand.

The second effect of the distributor block in the supply chain is to reduce distribution and sales costs. By using the distributor block, automotive companies can easily control which stores their products are sent to, and these stores must also comply with the terms agreed upon with the automotive company. This reduces the costs of distributing and selling products.

The third effect of the distributor block in the supply chain is to increase the marketability and sales of products. By using the distributor block, automotive companies can easily control which stores their products are sent to, and these stores must also comply with the terms agreed upon with the automotive company. This increases the marketability and sales of products.

Therefore, the distributor block with a mixed marketing approach in the automotive industry has many positive effects, including improving product quality, reducing distribution and sales costs, increasing marketability and sales of products.

Suggestions for creating a distributor block

Market analysis: First, the market must be analyzed accurately and customer needs identified. In this regard, it is necessary to consult with automotive companies and distributors in the market and collect their opinions on market needs.

Selecting suppliers: To create a block of distributors, appropriate suppliers must be selected. For this purpose, the terms of supply contracts with suppliers must be studied and price offers and terms of delivery of goods and services must be requested from them.

Creating a distribution network: After selecting suppliers, an appropriate distribution network must be created. In this regard, an appropriate distribution network must be designed according to the needs of customers and their location.

Using new technologies: To improve efficiency and reduce costs, new technologies such as the Internet of Things, blockchain, and artificial intelligence must be used.

Supply chain management: To be successful in creating a block of distributors, attention must be paid to supply chain management and the necessary processes must be designed for this purpose. In this regard, supply chain management systems such as ERP and SCM must be used.

Providing after-sales services: To satisfy customers and increase their loyalty, appropriate after-sales services must be provided. For example, vehicle repair and maintenance services must be provided at different points in the distribution network.

The support and logistics block in the large supply chain with an effective mixed marketing approach can be effective through the following factors.

The support and logistics block in the large supply chain with a mixed marketing approach in the automotive industry has a very important impact on the performance and profitability of automotive companies. Given the fierce competition in this industry, reducing production costs and increasing product quality is of great importance. In this

regard, the use of the support and logistics block is proposed as an effective solution to improve performance and reduce costs.

Blockchain, as a new technology in the supply chain, helps automotive companies to improve various supply chain processes using blockchain technology and ensure that all members of the supply chain operate correctly. This technology helps companies to reduce production costs and improve the quality of their products, and as a result, increase their profitability.

On the other hand, logistics, as one of the important factors in the supply chain, helps automotive companies to improve their logistics processes and reduce transportation and warehousing costs. By using new technologies in the field of logistics, companies can automate and optimize their logistics processes and, as a result, reduce their costs and increase their profitability.

Given that the automotive industry is one of the largest and most complex industries, using the support and logistics block as two effective solutions for improving performance and reducing costs helps automotive companies to show the best performance in competition with other companies and, as a result, increase their profitability.

Suggestions for creating a support and logistics block

- Establishing a support and logistics company with the aim of providing transportation, warehousing, distribution and inventory management services in the automotive industry supply chain.

- Investigating and assessing the needs of customers and suppliers in the field of support and logistics services, with the aim of providing optimal services in accordance with their needs.

- Providing transportation services using the most optimized means of transportation according to the needs of customers, suppliers and products.

- Providing warehousing services using optimized warehousing spaces according to the needs of customers and suppliers.

- Providing distribution services using an optimized distribution network according to the needs of customers and suppliers.

- Providing inventory management services using inventory management systems optimized to meet the needs of customers and suppliers.

- Using new technologies in the field of support and logistics services, in order to improve efficiency and reduce costs.

- Providing marketing and sales services using a combined marketing approach, with the aim of attracting new customers and increasing sales.

- Cooperating with related companies in the automotive industry supply chain, in order to meet the needs of customers and suppliers.

- Providing consulting and training services to customers and suppliers in the field of supply chain optimization and the use of support and logistics services.

The environmental block is used as one of the environmental management methods to reduce the negative impacts of the industry on the environment. In the automotive industry, the use of the environmental block in the large supply chain can have significant impacts on the environment.

Given that the automotive industry is one of the largest and most consumer industries in the world, its impacts on the environment are also significant. By using the environmental block in the large supply chain, these impacts can be reduced while improving product quality and reducing costs.

In the mixed marketing approach, a combination of two or more marketing methods is used to improve business performance. By combining different marketing methods, better and more results can be achieved in the field of sales and marketing.

By combining the mixed marketing approach with the environmental block in the automotive industry, better and more results can be achieved in reducing the industry's negative impacts on the environment and improving business performance. In addition, this method can help reduce costs and increase profitability.

Suggestions for creating an environmental bloc

- Establish a working group to research environmental materials and new technologies in the automotive industry and innovation in the supply chain.

- Encourage automobile manufacturers to use environmental materials and protect the environment in the production process.

- Provide financial support for the development of new technologies and environmental materials.

- Encourage the use of renewable energy in the automobile production process.

- Provide training programs to increase employee awareness about environmental materials and environmental protection methods.

- Encourage the use of recyclable packaging and their proper disposal.

- Provide programs to reduce air pollution and protect water resources.

- Encourage the use of electric and hybrid vehicles.

- Encourage the use of sustainable transportation methods and reduce urban traffic.

- Encourage the use of methods to recycle raw materials and reduce waste in the production process.

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