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Policy-Making Model for the Ministry of Industry, Mine and Trade Based on Digital Transformation

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Abstract

the purpose of this study is presenting a policy-making model for the Ministry of Industry, Mine and Trade (MIMT) based on digital transformation. The study is an applied-developmental study in terms of purpose and cross-sectional survey research. A semi-structured interview and Likert scale questionnaire were used to collect data. The reliability of the questionnaire was assessed using Cronbach's alpha and combined reliability. The statistical population includes experts in the automotive industry until the theoretical saturation was reached and 15 experts participated. Using Cochran's formula for indeterminate populations, 365 people were calculated as a sample

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and cluster sampling method. To analyze the data, the grounded theory analysis method was used to identify the research indicators, and to validate and present the final model, the structural equation modeling method and LISREL software were used. It can be acknowledged that before deciding to transform processes and enter the digital arena, it is necessary to assess the readiness of the organization as well as its human resources to accept this change. The implementation of the automotive industry policy for digital transformation will make the Ministry of Industry, Mine and Trade the digital leader in the automotive industry.

Keywords: Policymaking, Digital Transformation, Automotive Industry, Ministry of Industry, Mine and Trade.

Introduction

The requirement of being digital is to be open-minded about reviewing your business practices and to understand where the new frontiers of value lie (Llopis-Albert et al., 2021). Digital presence must play a vital role in business and its revenue and profitability must be clear from the very beginning . The strategic automotive industry is the world's largest industry and the second-largest economic activity after banking (Rubio et al., 2020). To succeed in the new era and keep pace with market needs, automakers need to embrace new technologies and strive to satisfy customers, and create a pleasant and distinctive car buying experience. Otherwise, they will have to rely on business models and products. This has led automakers around the world to invest heavily in smart car projects, connected cars, electric car production strategies, as well as joint ventures. Meanwhile, digital market leadership is one of the most effective strategies (Winkelhake et al., 2021).

This industry has become the basis of national industries and can reflect the overall level of production of the country's industries. Adopting efficient and operational policies and guidelines is the first step to achieving the goals of this industry (Kooshan and Ebrahimi, 2021). From this perspective, the automotive industry and the two major automakers in the country, namely Saipa and Iran Khodro, have always paid special attention to the government and parliament. Governing institutions try to lead the industry to success by adopting appropriate policies (Karimpour et al., 2019). However, Iran's failure in the field of the automotive industry is obvious and various reasons have been proposed for this. One of the main reasons is the weakness of planning and coherent policies and efficient policies in the field of automobile manufacturing (Hosseini and Saei, 2017).

Iran's automotive industry has always had problems that at certain times these problems appear more and more. Every policymaker and official in different governments have had different analyzes about this industry and consequently proposed different solutions, but despite all the efforts, today we see that not only the problems have not been solved but also intensified (Fartuk and Tahmasebi, 2021). The creation of a temporary monopoly, tariff protection, and financing assistance are some of the consessions provided to the automotive industry to advance the country's economy as a driving force. However, this industry in our country has not been able to develop as

it should and to catch up with global competitors. Therefore, it is necessary to review the automation policy of the automotive industry (Nadiri et al., 2019). To better understand this issue, one must first become familiar with the concept of government policy-making. "Policy" is the set of interactive decisions of an actor or a group of political actors in private sector, the choice of goals, and the means to achieve them in certain circumstances provided that these decisions are legally made within the authority of the actors. "Policy-making" involves a process that begins with the identification of an issue or subject and ends with the process of formulating, approving, implementing, and finally evaluating the policy. Thus, public policy-making goes through the same decision-making process (Afrasiabi & Maleki, 2021). "Public policy-making" is a set of decisions taken by the government in the name of the public and implemented in the form of regulations and orders and have direct or indirect effects on the lives of all citizens (Jia et al., 2021). Public policy refers to the activities of the government and the intentions that give rise to these activities. It includes everything that the government does or puts aside. It also includes political plans to implement plans to achieve social goals (Ewert, Loer & Thomann, 2021).

In order to implement macro-policies, conscious and purposeful government interventions are emerging through policy-making. Policy formulation is the process during which a valid decision is made and the definition of implementation is the process of making these decisions. There is an overlap between the development and implementation of the policy. Policy implementation is an integrated set of the interaction processes between goal setting and action to achieve the goal (Ba'idi Mofradnia et al., 2019). Policy-making is a key factor in the success of long-term plans in the public sector. Since the execution should not be separate from the editing, special arrangements should be considered in the formation of the policy. Thus, policy-making is the main agent that guarantees success in implementing macro-policies in government organizations (Figueira et al., 2018). The goal of the country's automotive activists is to provide quality products and to assure customer satisfaction (Crouch, 2018). Because car factories operate in an environment with indistinguishable products, government support is considered one of the most important tools of quality competition (Mohaqer et al., 2021). The country's regulatory bodies claim that what has been stated as the goals and

policies for the development of this industry has not been achieved and that the industry is in crisis. Achieving the high goals of the automotive industry in the country requires a fundamental overhaul and recognition of an appropriate model (Ismaili et al., 2021).

As a result, it can be said that digital technologies are transforming the automotive industry and disrupting traditional business models (Kergroach, 2017). New business opportunities related to Industry 4.0 are emerging, so companies need to adapt to the new environment (Paluch et al., 2019). The lever of success in the automotive industry is policy-making, which is specifically overseen by the MIMT. Therefore, in this study, an attempt has been made to provide a model for the delineation of the MIMT based on digital transformation. For this purpose, first, the components of policy-making in this area should be identified and then the relationships between the factors should be determined.

Theoretical foundations of research

The automotive industry includes all sectors of design, development, production, marketing, and sales of motor vehicles. The group of companies and factories involved in the design, manufacture, marketing, and sales of motor vehicles are part of this industry. In 2008, more than 70 million motor vehicles, including conventional vehicles and commercial vehicles, were produced in all over the world. In 2018, totally (91.9 million) cars were sold throughout the world, of which 32.9 million were in Europe, 26.4 million in Asia-Pacific, 24.4 million in the United States and Canada, and 4.4 million in Latin America., 2.4 million in the Middle East and 1.4 million in Africa. When the markets in the United States and Japan were stagnant, Asia and South America grew stronger. The large markets of Russia, Brazil, India, and China also appear to have grown very rapidly (Lee & Tan, 2019). Given the benefits of developing the automotive industry in developing and improving transportation to serve the people and increase social welfare in society, paying attention to the production of safe cars with new technology without the need for fossil fuels is of particular importance and reduces harmful effects. The environment, the health of the community, and the well-being of the citizens will undoubtedly bring peace to the citizens of the community. In this regard, the use of new technologies in the automotive industry and quality improvement of parts is one of the most important prerequisites for the production of quality cars

(Nejad Hossein, 1399). One of the most important and practical products in the automotive industry is car safety equipment and parts. The use of safer systems in the stability and maintaining the health of car occupants is one of the important issues in car design (Parsa, 2015).

The position and importance of the automotive industry in the world economy are not hidden from anyone. After 120 years of the industry, the car has become an integral part of human life. Most developing countries have invested in the automotive industry in order to achieve higher levels of national development and prosperity and industrial development (Shigeta & Hyssein, 2021). In recent decades, the automotive industry and related products have been one of the most competitive and challenging industries among developed countries. This competition has accelerated with the growth of technology and requires effective and efficient policy-making (Kumar, Mathiyazhagan, & Mathivathanan, 2020). Policy-making in the automotive industry aims to achieve superior and up-to-date capabilities and capabilities in the automotive industry in such a way as to enable competition. Automakers will not be able to formulate a strategy for their life in the market, especially in the competitive arena of the future, regardless of environmental conditions, especially laws and regulations related to the automotive industry (Chen et al., 2020).

The Fourth Industrial Revolution affects the whole production process. In fact, by converting analog to digital, decentralized production will replace the traditional method or centralized production. One of the key features of this digital transformation is the reduction of production costs on the one hand and its customer orientation on the other hand (Jolly, 2018). At the same time, it will create new business models, creative products, and new services. In this way, the realization of self-controlling production systems using sensor technology as well as the Internet will shape the future. In fact, in this new cyber-production system, orders can steer and control themselves throughout the value chain (Engblom, 2018) When Henry Ford launched his assembly line in 1913, the Second Industrial Revolution began and the automotive industry stepped into the arena. Now, a century later, with the advent of the Fourth Industrial Revolution, the automotive industry is once again facing a serious transformation. The Fourth Industrial Revolution in the automotive industry has had positive consequences and created new business

opportunities. Advances in production smartening and the production line continue to change the car manufacturing landscape, while automakers and parts suppliers are rapidly implementing I4.0, it remains to be seen what the benefits will be. The potential was conceivable, but, what are the challenges? The Fourth Industrial Revolution examines the relationship between automobile manufacturers and the digital revolution, which includes the following:

• Focus on the practical application of data-driven production

• Consulting with major manufacturers and suppliers of parts to achieve I4.0

• Case study in the car production process

Future drivers of the automotive industry

• Technology and digital transformation

• Social network

Robotics, automatic control and guidance, and 3D printing

• Interconnected vehicles, interconnected drivers, and customer dynamics

• Data, machine learning, and cyber security

• Open source patents and application programming interfaces

• The variable nature of competition and sources of competition (Novta et al., 2020).

3- Research background

In this section, studies in line with the purpose of the research are reviewed. Llopiset al. (2021) stated that to achieve the true capacity of the Fourth Industrial Revolution, companies need to plan for digital transformation. Manufacturers must use digital skills to search for the best talent and come up with a clear plan for how digital factories will evolve. Rubio et al. (2020) stated that in the present era, electronic vehicles and their development have many benefits in sustainable development.

Kooshan and Ebrahimi (2021) made a comparative study of success factors in automotive industry localization policies. The results indicate that Iran in general is weak in many key concepts of this industry. Political, legal, economic, cultural, and social factors, the internal environment of the automotive industry, and infrastructure in Iran are weak. This research is a continuation of the research of Hosseini and Saei (2017) who have conducted a comparative study of Iran and South Korea policy in the field of the automotive industry.

The results of Hosseini and Saei's study also showed that the most important reason for Iran's failure in this field is the existence and continuation of the limited access order before and after the revolution.

Ismaili et al. (2021) have examined the pattern of industrial development in the automotive parts industry. In this regard, they have proposed an alternative discourse to describe the auto parts industry as it is so that at this point it will be a stimulus for the industry to grow again. According to Mohaghar's study (1400), the variables of cost, quality, variety, and flexibility of the latent variable explain the sustainable competitive advantage in the automotive industry. Kaizen strategies, organizational resource organization, timeliness, and supply chain management, also explain the latent variable of Iranian automakers' production strategies. According to the findings, the components of production and operation strategy have a positive and significant effect on the sustainable competitive advantage of the automotive industry. Monem et al. (2021) studied the determination of the dominant pattern of capital structure in the automotive industry and parts manufacturing. Their research findings show that in the automotive industry and parts manufacturing, hierarchical theories, excessive optimism, and market timing are the dominant models in the Iranian capital market. Fartouk and Tahmasebi (2016) have examined the missing link of industrial policy in the Iranian automotive industry. Their specific proposal is the adoption and correct implementation of industrial policies as the main strategy to promote the country's automotive industry. Important policies in this regard are demand aggregation, aggregation, avoidance of diversity in core components, and efforts to focus on shared platforms. Nadiri et al. (2017) have conducted an analysis of production protection policies in the Iranian automotive industry. In the analysis of consessions management of the automotive industry, it can be said that the early stages of growth and development of the automotive industry occurred with the help and guidance of the government, but to increase the quantity and quality of the automotive industry and move to more complex activities, consessions management mechanisms at three levels: politics, policy, and industry should be implemented. Shirvani et al. (2017) have dealt with strategy in the Iranian automotive industry with a strategic foresight approach and a focus on science, technology, and innovation. Based on the five types of strategic

options and the images extracted from the foresight process, they made recommendations for improving policy-making in the Iranian automotive industry. The innovation of this research in the way of presenting strategic options is based on the strategic foresight approach.

Research Method

This study is a basic research that has been done to validate the policy model of the MIMT in the automotive industry with a mixed approach. It is also cross-sectional research based on how the data is collected. The statistical population in the qualitative section includes experts in the automotive industry. The number of experts for specialized interviews proposed by the grand theory method is between 15 and 30 (Vasileiou et al., 2018). In general, the interview process in qualitative analysis continues until the theoretical saturation is reached (Ranjbar et al., 2012). The required qualifications for the experts are at least twenty years of experience in the automotive industry and at least a master's degree. The sample was purposefully selected. Sampling was continued until theoretical saturation was achieved and 15 eligible individuals participated in this study. The statistical population in the statistical part also includes managers and experts in the automotive industry. Using Cochran's formula for indeterminate communities, 365 people were calculated as a sample. And a random sampling method was used . The main tool for collecting research data in the qualitative part is a semi-structured interview and in the quantitative part is a questionnaire. Holst coefficient was used to assess the validity of the interview results. The "percentage of observed agreement" or PAO is obtained by calculating the Holsti coefficient of 0.809, which is an acceptable value (Holsti, 1969). The validity of the questionnaire was confirmed by calculating the content validity ratio of the CVR. Cronbach's alpha of the general questionnaire was 0.836 and for all dimensions, it was greater than 0.7, so the reliability of the questionnaire was confirmed. Qualitative analysis of specialized interviews was performed . The structural equation modeling method was used to validate the designed model. Data analysis was performed using MaxQDA and LISREL software.

Research Findings

Semi-structured specialized interviews have been conducted with automotive industry experts to provide a model for automotive barrier policies. At this stage, before the start of the interview, 6 open questions were considered and new questions were asked during the interview process as expected. To get acquainted with the depth and scope of the data content, the data was read repeatedly and actively (searching for meanings and patterns).

Table 1: The fundamental questions of the MIMT's policy modeling design interviews are presented.

No.	Questions
1	In your opinion, what is the main issue in the MIMT's policy pattern based on digital transformation?
2	In your opinion, what are the background conditions in the MIMT policy design pattern of the MIMT based on digital transformation?
3	In your opinion, what are the causal conditions in the MIMT policy design of the MIMT based on digital transformation?
4	In your opinion, what are the conditions for intervening in the MIMT's policy design pattern based on digital transformation?
5	In your opinion, what are the strategies and measures necessary to establish the MIMT policy design model of the MIMT based on digital transformation?
6	In your opinion, what are the consequences of establishing the MIMT's policy design model based on digital transformation?

The results of the interviews were analyzed using the grounded theory method. For this purpose, the text of the interviews was read and reviewed several times. The data was then broken down into semantic units in the form of sentences and paragraphs related to the main meaning. The semantic units were reviewed several times and then the appropriate codes of each semantic unit were written and the codes were classified based on the semantic similarity. The analysis process was repeated in the same way with the addition of each interview. The interviews continued until the theoretical saturation was reached.

The criterion for achieving theoretical saturation was to achieve repetition in the extracted codes. Finally, the grand theory based on the method proposed by Strauss and Corbin (1994) included open, axial, and selective coding. The text of the interviews, which was

previously entered into the software as a text file, was studied many times, and their key points were entered into MaxQDA software as code. In the open coding stage, 521 codes were identified. Finally, 216 final codes were obtained through axial coding. The indicators of the MIMT's policy-making model in the automotive industry extracted from the interviews using the Foundation's data analysis method are presented in Table 2. It should be noted that in order to preserve the information of the participants in the interview of the present study, each of the interviewees is displayed with the code MIX. The letter M is used to indicate the interview and the letter I is used to indicate the interview number and the letter X is used to indicate the initial code number extracted from the interview text[1].

Table 2: Indicators of the MIMT's policy model in the automotive industry

Paradigm	Indicators	References
Axial phenomenon	Improvements in the implementation of the MIMT's policy in the automotive industry	{M7,22} {M9,11} {M4,14} {M3,18} {M15,12} {M6,22}
Background conditions	High costs of financing, ownership structure of major and major automakers of the country (government nature and government management interventions), regulatory problems in insufficient support of the automotive industry, regulatory problems in over-protection of the automotive industry, high inflation in the country, The unwillingness of the world's leading carmakers to cooperate with the country's automobile industry , the lack of support for the country's infrastructure from industry (transportation, electricity, etc.) , the low purchasing power of the people due to the country's general economic conditions from the automotive industry, Negative impact of influential and profit-seeking groups (parts manufacturers and industry stakeholders) , Negative impact of influential and profit-seeking	{M9,34} {M11,10} M1,20} {M14,16} {M2,41} {M5,32} {M3,16} {M13,18} {M4,24} {M11,21} {M2,11} {M15,17}

1 For example, M3,4 indicates interviewee number 3 and code number 4 of this interview.

Paradigm	Indicators	References
	groups (companies importing cars and parts) , Negative impact of influential groups And utilitarianism (politics), imposition of mandatory policies on the type of automotive products, problems with car pricing and the number of authorities involved, regulatory weaknesses in the field of quality standards of manufactured cars, the international and political situation of the country	
Causal conditions	Insufficient understanding of policymakers of major issues and priorities of the country's automobile industry, insufficient attention to the will of the public and executives in selecting major issues of the automotive industry, formulation of policies without considering the possibility of implementation (financial and executive capacity of the network Execution of policies without considering the considerations of implementers, poor operational planning to implement policies in the MIMT, high cost, lack of liquidity in the automotive industry, lack of expertise and knowledge in the field of car design and production / Parts, Lack of application of modern technology in the field of car design and production / parts, low manpower productivity rate, management weaknesses in major automotive companies, poor operational planning to implement policies in the industrial sector, constant management changes in the company Automotive companies, management weaknesses in the top authorities of automakers (MIMT, related institutions and organizations), management weaknesses in the body of the automotive industry, weakness in proper management of product development projects, weaknesses in the field of quality standards of production vehicles, weakness in Evaluation of the policies of the MIMT in the automotive industry, weakness in the evaluation of A. Owner of automakers	{$M_{4,}$13} {$M_{8,}$26} {M_{14},4} {$M_{7,}$14} {$M_{4,}$36} {M_{2},10} {$M_{6,}$11} {$M_{8,}$15} {M_{1},14} {$M_{2,}$18} {$M_{3,}$23}
Interfering conditions	Lack of access to the modern production technology of cars and parts, unwillingness for foreign investment in the country's automotive industry, problems due to restrictions on international financial exchanges, problems in	{M3,41} {M6,12} {M9,29} {M11,19} {M2,30}

Paradigm	Indicators	References
	how to allocate the currency needed by the automotive industry, international sanctions	{M1,35} {M13,4}
Strategies and actions	Reforming the country's monetary, foreign exchange, and banking policies to support industry, reviewing macroeconomic/political policies to support and develop the country's industries, including the automotive industry, reforming car pricing, the need to lift sanctions, and tightening regulations. Regulations on the implementation of safety and quality standards of cars produced in the country, reform of regulations and car import tariffs, realistic formulation of policies based on factors affecting the industry in the current and future situation, development of a comprehensive plan for the country's automotive industry, the need for review and Raising the prices of some products, reforming the car production program with an emphasis on good quality and profit, and gradually eliminating low-quality or loss-making products, focusing on specialization and education, reforming the ownership structure: selling government shares in car companies to the private sector and pluralism Major shareholders, the need to upgrade technical knowledge in the field of production and design of cars and parts, the need to upgrade technology used in the production and design of cars and parts, sell surplus assets and companies, unproductive and non-strategic automakers, create a precise mechanism and effective to monitor the correct implementation of policies, the need for review and coercion Losses of car manufacturers due to inappropriate and ordered pricing by the government, the need to try to improve international conditions, encourage foreign car companies to participate in production projects and create joint platforms, encourage foreign investment in the country's automotive industry Proper planning of human resources based on needs assessment and research future, purposeful and planned injection of liquidity into the industry, two-year break to the industry to repay bank arrears, establishment of joint R&D centers with world-renowned automakers in the country,	{M_1,36} {M_2,13} {M_6,21} {M_{12},15} {M_5,17} {M_8,20} {M_{10},11} {M_9,5}{ {M_{10},17} {M_{11},10} {M_4,6} {M_{15},27} {M_5,38} {M_{13}, 3} {M_{12},24}

Paradigm	Indicators	References
	creation of tax incentives in production and employment The emergence of industry, the need to design and implement a national and joint platform of domestic automakers, macro and enforceable policy based on the coverage of regional export markets, the development of the leasing industry with the participation of the private sector, international sanctions, integration of domestic automakers and integrated management	
Consequences	Proper policy-making in the country's automobile industry, proximity of policies and implementation	{M_2,10} {M_4,9} {M_9,15} {M_2,4} {M_1,1} {M_4,2}

According to the identified categories, the initial research model can be designed. The following figure shows the research model based on the foundation data approach (Strauss and Corbin, 1994).

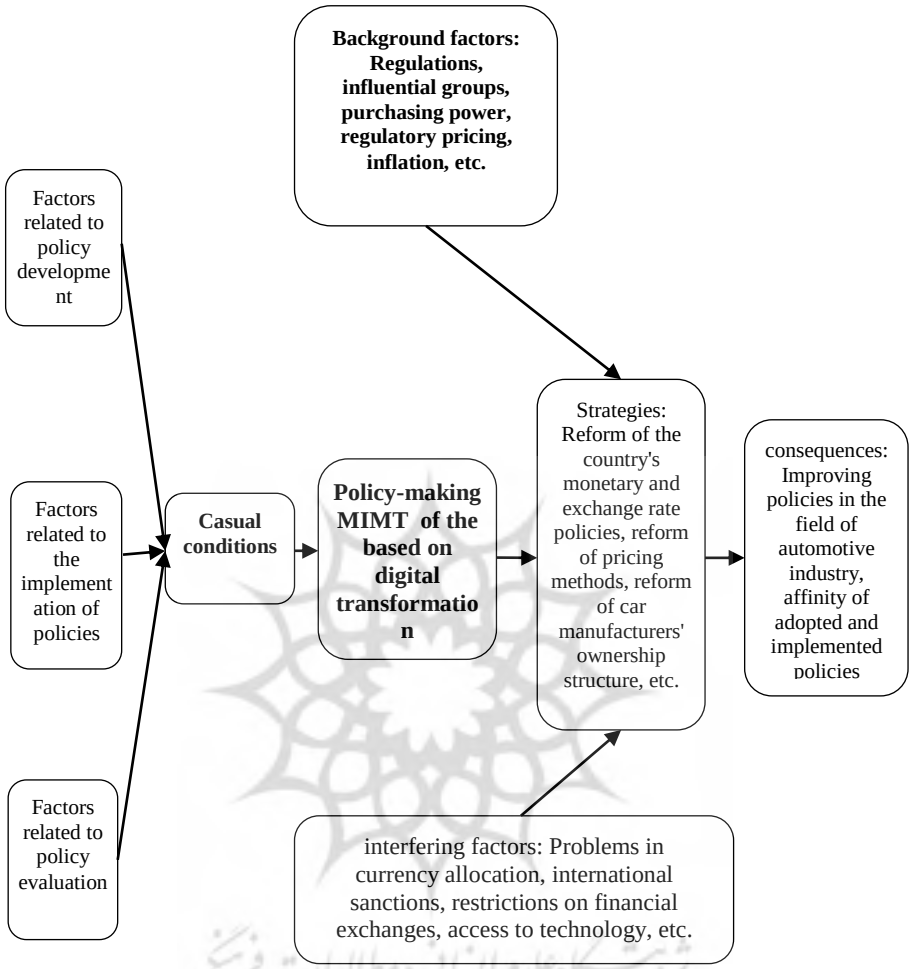

Figure 1 - Research model based on the grounded theory approach

After the initial pattern of the MIMT's Policy model was designed based on digital transformation, the structural equation model (SEM) method was used to validate and present the final pattern. The normality of the data was evaluated using the Kolmogorov-Smirnov test.

Table 3 - Data normality test

Variables	Statistics of Kolmogorov Smirnov	Significance level	Test result
Casual factors	0.847	0.183	Normal

Background factors	0.968	0.345	Normal
interfering factors	0.857	0.245	Normal
Strategies	0.910	0.117	Normal
consequences	1.108	0.098	Normal

Based on the results of the Kolmogorov-Smirnov test, in all cases, the value of significance greater than the error level (0.05) was obtained. Therefore, there is no reason to reject hypothesis 0 and the data distribution is normal. Because the data is normal, the structural equation modeling method can be used. The structural model of the research in standard estimation mode is shown in Figure 2. In this model, which is the output of LISREL software, a summary of the results related to the standard factor load of factor relations is presented. The t-statistic for measuring the significance of relationships is also presented in Figure 3.

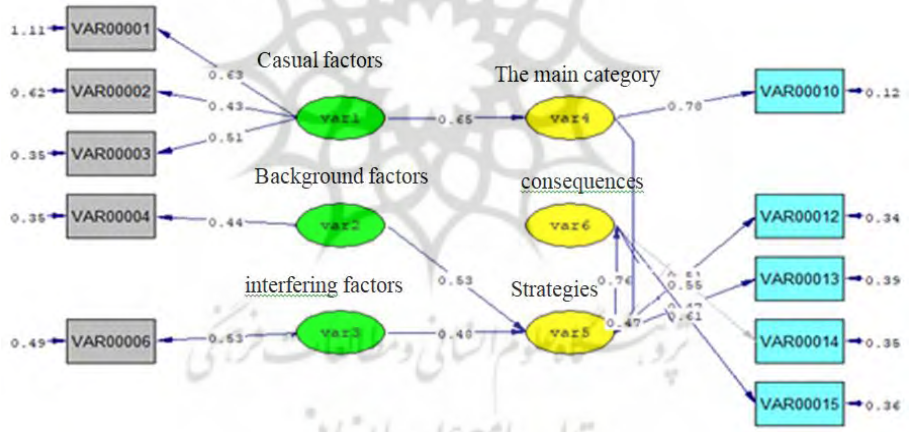

Figure 2 - Structural equation modeling (standard estimation)

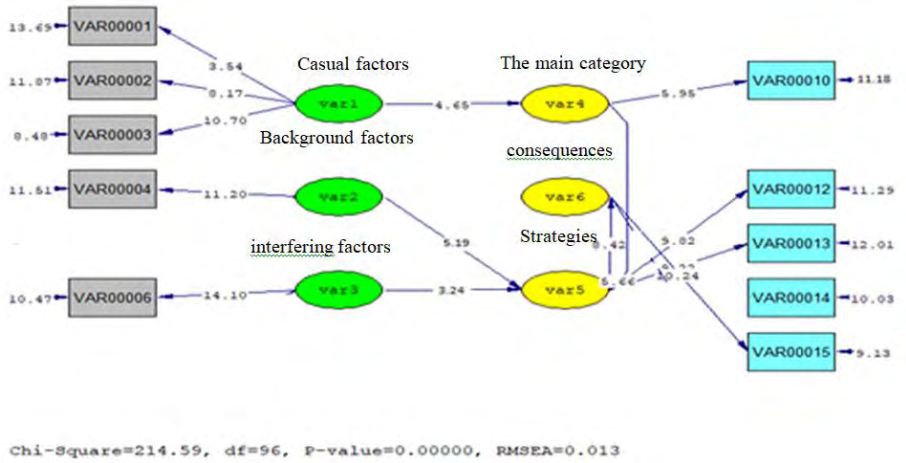

Figure 3- Structural equation modeling (standard estimation)

According to the table, the factors identified in the data model of the foundation have affected each other. The factor load of causal factors on the main category is 0.65 and its t-statistic is 4.65, the factor loading of underlying factors on strategies is 0.53 and its t-statistic is 5.19. The factor load of the intervening factors on the strategies is 0.48 and its t-statistic is 3.24, the factor load of the main category on the strategies is 0.47 and the t-statistic is 5.66. Finally, the factor load of the strategies on the consequences is 0.76 and the TN statistic is 8.42. Therefore, it can be said that the research model is approved.

Table 4 - Summary of validation results of the final research model

the effect	t	Significance level	factor loading	Result
Causal factors on the main category	0.65	4.65	0.000	Confirmation of relationship
Underlying factors on strategies	0.53	5.19	0.000	Confirmation of relationship
Interfering factors on strategies	0.48	3.24	0.000	Confirmation of relationship
The main category on strategies	0.47	5.66	0.000	Confirmation of relationship
Strategies on consequences	0.76	8.42	0.000	Confirmation of relationship

The structural model of the research is saturated in two stages. The normal chi-square value is 2.235, which is in the acceptable range of 1

to 3. The RSMEA and SRMR fit indices are 0.040 and 0.036, respectively, which is less than 0.05. The GFI index, the Bentler-Bount index (NFI), and the Tucker-Lewis index (TLI) are also greater than 0.9, which have been accepted in the range.

$$\frac{\chi^2}{df} = \frac{214.59}{96} = 2.235; RMSEA = 0.013; SRMR = 0.036; GFI = 0.92; NFI = 0.94; TLI = 0.92$$

Therefore, the research model is in a good state and can rest on results.

Discussion, conclusions, and suggestions

Many countries with continuous efforts have brought their industry to a level of growth and prosperity in order to be able to export their products to other countries and allocate a high percentage of employment, income, and added value to their country because the growth of the industry in addition to creating employment and Comfort leads to the production of better and more suitable products. Due to the expansion of Iran's automotive industry, this industry has an irreplaceable role in terms of influencing business development, increasing job opportunities and creating sustainable employment, developing public transportation, and increasing social welfare. The relationship between this industry and various social and economic sectors reinforces the belief that in Iran, the automobile industry and related industries are the driving force of the country's industry and are the main pillars of the economy and trade. Therefore, the present study was conducted with the aim of presenting the modeling policy of the automotive industry in the era of digital transformation. Based on the results, it was found that the background conditions and bedrock for the meshing line of the automotive industry in the digital age are important. These factors include high costs of financing, the ownership structure of major automakers (government nature and government management interventions), regulatory problems in insufficient support for the automotive industry, regulatory problems in over-protection of the automotive industry, and inflation. High in the country, the unwillingness of the world's leading automakers to cooperate with the country's automobile industry, lack of support of the country's infrastructure (industry, transportation, electricity, etc.),

low purchasing power due to the general economic conditions of the country, monetary policy and Inadequate banking to support the automotive industry negative impact of influential and profiteering groups (parts manufacturers and industry stakeholders) , negative impact of influential and profiteering groups (companies importing cars and parts) , negative impact of groups Influential and profit-seeking (politics), imposing dictatorial policies on the type of automotive products, problems with car pricing and the number of authorities involved, regulatory weaknesses in the field of quality standards of manufactured cars, the international and political situation of the country mentioned in Ismaili studies and Et al. (1400) and humble et al. (1400) also the components of the ownership structure of automakers, The low purchasing power of the people due to economic conditions and the imposition of dictatorial policies are mentioned and from this perspective are in line with the results of the present study. Previous studies have not mentioned the components of the negative impact of influential and profit-seeking groups and regulatory weaknesses in the field of quality standards of production vehicles, which is an important indicator of the innovation of the present study.

Also, according to the results of the research, the intervening conditions include lack of access to the modern production technology of cars and parts, unwillingness for foreign investment in the country's automotive industry, problems due to limited international financial exchanges, problems in allocating foreign exchange required by the automotive industry sanctions were identified internationally and are consistent with the results of studies by Farouk and Tahmasebi (1399) and Jia et al. (2021), Liopis et al. (2021) and Jolley (2018).

The results of the research showed that the existence of causal conditions in this field has led to the need to provide a policy model of the MIMT to remove barriers in the automotive industry. Among these factors one is the lack of understanding of policymakers of major issues and priorities of the automotive industry, insufficient attention to the will of the public and executives in selecting major issues of the automotive industry, and poor operational planning to implement the policy. Pointed out in the MIMT. It should be noted that the results are in line with the results of the studies of Kooshan and Ebrahimi (2021) and Hosseini and Saei (2018).

. These components not mentioned in previous studies include lack of expertise and knowledge in the field of design and production of cars/parts, lack of application of modern technology in the field of design and production of cars/parts, low manpower productivity rates, mismanagement in major automotive companies. To put it in a nutshell, it can be said that structural problems have prevented the mother and specialized automotive industry, which in a way could have played a role as a locomotive of the country's industry from thriving in terms of product quality , and power competition in the international arena . To solve the problems, a coherent plan must be formulated and implemented in accordance with the realities of Iran's economy and current capacities, so that all the above-mentioned items are taken into account in the short-term, medium-term, and long-term horizons. It should be noted that the real determination of the legal-executive bodies to specialize in this industry; especially in terms of manpower structure will be a fundamental strategy in the industry's comprehensive plan, although in the current context, and at least in the medium term, the issue of overseeing the industry to protect the rights of the people is a necessary and undeniable principle.

Privatization in the automotive industry can greatly reduce the existing problems. Attention to the private car industry will create competition, free trade and it will increase quality in general and after-sales service quality, and this will cause the state-owned carmaker to change in this competitive environment and produce a quality car. However, the privatization of the industry in the current economic and political conditions of the country is like releasing a bird that has lost its ability to fly in a vast wilderness.

Transparency and working in a systematic and process environment can also be a useful practical solution so that all stakeholders should have access to our outcomes. Parts makers are the business partners of the industry and should be aware of the production, just as the automaker should be aware of the status of the manufacturer of the parts.

Finally, establishing regular and systematic mechanisms for pricing, solving industry problems, qualitative and quantitative goals, and monitoring the realization of industry prospects, along with a transparent and accurate implementation of the research process and accurate reports should be acknowledged. Any intention will be

effective in implementing the policy-making model of the MIMT to dislodge obstacles of the automotive industry.

With the advancement of technology and the advent of digital technologies, car sales models in the form of B2C and market trends have also undergone many changes, and the buying patterns of consumers confirm this. While retail models are still popular, many carmakers still do not pay much attention to them; however, this strategy needs to change. Currently, few automakers are ready to offer an end-to-end solution, a comprehensive solution that meets zero to one hundred customer needs without the need for any other source. On the other hand, fewer automakers are also business. They have integrated online and offline. Although there are no specific technical issues that prevent the use of an integrated model for retailing products, there are several operational barriers that automakers must overcome. These challenges include the following:

- Need for large investments
- It is not easy to change work processes
- Working with retailers
- Providing the possibility of driving test (Drive Test)
- Transfer of traditional or offline sales unit experiences to digital or online
- Reducing the productivity of retailers
- Building mutual trust between sellers and the company

Before deciding to transform processes and entering the digital arena, it is necessary to assess the readiness of the organization as well as its human resources to accept this change. Merely choosing tools to make cars smarter and the process of buying them is not a holistic approach and is likely to lead to failure. But what is important is that the implementation of this great plan requires preparation and fundamental changes, otherwise it is just like building a tower on weak columns that will result in nothing but collapse. Finally, it can be said that the implementation of the automotive industry policy for digital transformation will make the MIMT the digital leader in the automotive industry.

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