

Providing a model for market share development based on strategies to enter international markets with foundational data and hierarchical analysis

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Abstract

The aim of the current research is to design a model to develop the market share based on the strategies for entering the international market of the National Iranian Drilling Company. A quantitative and qualitative mixed method was used to achieve this goal. In the qualitative phase, the data were collected through interviews with 12 experts using the snowball sampling method and analyzed with the help of the Foundation's data theory in three stages of open, central and selective coding. The findings of this phase showed that 39 concepts can be identified, which can be classified into 17 categories by examining the conceptual similarity, which can be classified as components of the paradigm model, which can be based on the main criterion of causal conditions (government support, factors related to the country of origin and factors related to the target market), the central phenomenon (maintaining the market share and increasing the market size), the dominant base (communication and functional infrastructures, specialized infrastructures, appropriate policy-making and planning), intervening conditions (political and economic factors, cultural factors and social), strategies (customer orientation, empowerment and promotion of international capabilities, participation in investment and non-participation in investment) and consequences (improvement of technology, growth and survival, and credibility and reputation of the company). In the second phase, using the opinion of experts and using the AHP hierarchical analysis method, the determined criteria were identified and prioritized. The results of this stage showed that the criterion of the leaders with the highest weight of 0.278 and the criterion of the ruling platforms with the lowest weight of 0.081 can play a role in the development of the market share of this company.

Keywords: market share development, internationalization, international market entry, international market entry strategy, Grounded theory (GT), Structural equation modeling (SEM)

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1 Introduction

In recent decades, there have been fundamental changes in the business environment and international markets have been moving towards a global knowledge-based economy, causing many opportunities and challenges for today's companies and businesses. Iran's domestic market companies must interact with international markets to move towards global development. Internationalization is considered an important strategy to respond to intense competitive conditions and helps companies to achieve great economic benefits [2]. Lack of sufficient opportunities in domestic markets, a saturation of domestic markets, benefiting from economies of scale and economic production, access to low-cost production factors, customer pursuit, the attractiveness of foreign markets, foreign exchange, government support, and the company's desire are the main reasons for international market entry [1]. The government's support for exports and non-oil international activities is another important factor in Iran [22]. The support for international non-oil activities to fight against sanctions and foreign exchange has been recently focused on by the governors, stakeholders, and business activists. Diversification of foreign exchange earnings through non-oil exports and reduction of dependence on the oil economy are the ways to fight against a single-product economy [37]. More importantly, companies must decide on the entry strategy before entering international markets [35]. Every company can perform its activities in international markets in different ways which are called methods of entering international markets [48, 52]. When a company decides to enter international markets and participate in international trade, it has various options to enter. These options have different costs, risks, and degrees of control [60]. Choosing the method of international market entry determines the commitment level of resources in international markets and specifies the company's level of control over its business [11]. The degree of a company's control over its main marketing resources is the most important feature that distinguishes different methods of international market entry [33]. Jin Ko [27] considers the international market entry method a set of structured methods that help companies present their products and services in foreign markets through cooperation with others (partners, brokers, etc.). Gutiérrez & Machuca [19] believe that methods of foreign market entry include a specific type of institutional arrangement that helps firms to present their products to target markets outside their country. Ang et al. [5] argue that the market entry mode refers to the organization of activities and actions that enable the transfer of services, products, technology, and other company resources to foreign countries and markets. Choosing the international market entry type and style is important because it requires the allocation of significant human and financial resources that are irreversible and irreparable; hence, the international market entry chosen by a company plays an important role in the company's success [41]. Cahen et al. [12] believe that the international market entry strategy includes measures such as target market determination, control system, and marketing planning. Choosing the entry method affects the market share of companies and the market share development. The market share shows the success rate of a company in the market [4]. As a rule of thumb for market share development, companies must use methods that are simpler and have less risk at the beginning of an international market entry in a way that the necessary economic profit is created for the continuation of activities. National Iranian Drilling Company is known as a large Iranian company in international markets. This company has rigs that work on international projects. Given the position of the National Iranian Drilling Company and its potential owing to the geographical location of Iran, it is worth examining the status of this company in foreign markets abundantly and scientifically. Therefore, the researcher's challenge was to design a model to develop the market share based on international market entry strategies in the National Iranian Drilling Company.

2 Literature review

Studies on this topic are examined as follows. In this section, we sought to investigate the most relevant domestic and foreign studies on the research topic. Table 1 presents the results of some domestic and foreign studies on the research topic.

Table 1: Review of domestic and foreign studies

Authors	Title	Research method	Data analysis method	Results
Ahmadzadeh et al. [4]	Presenting the international market development model (case study: petrochemical products)	Qualitative	Grounded theory	Based on the research model, 106 concepts were identified and placed in 21 categories and 6 dimensions.

Tahernejad et al. [55]	Designing a causal model for international market entry strategies	Descriptive-survey and applied	Fuzzy Delphi method; fuzzy interpretive structural modeling; and fuzzy DEMATEL method	The government support dimension is the most effective dimension, and international market entry strategies are the most affected dimension in this study.
Azad and Pournaserian [8]	Identifying and ranking the effective factors of international market entry in improving market share mediated by the statistical process control (case study: Pharmaceutical companies in Tehran listed on the stock market)	Descriptive-correlational	Structural equations with AMOS and factor analysis with SPSS	20 variables were classified into 3 components of international market entry, 22 variables were classified into 4 components of market share, and 20 variables were classified into 3 components of statistical process control. Furthermore, the mediating effect of the statistical process control variable was confirmed in the relationship between international market entry and market share.
Pashazadeh and Adel [45]	The effect of the company's specific factors and obstacles to their international market entry strategies using the structural equation modeling technique (case study: companies active in dry fruits)	Descriptive-survey	Structural equation modeling	Company size, international experience, managerial characteristics, tariff barriers, geographical distance, and cultural gap affect the choice of export strategies for international market entry. Furthermore, the effect of product type and non-tariff barriers on the choice of export strategy was not confirmed, but the effect of product type and non-tariff barriers on the choice of non-export strategy was confirmed

Nurcholis [43]	How to improve internationalization strategy based on market characteristics, culture understanding, and knowledge management: the mediating effect of management behavior	Quantitative	Structural equation modeling	Market characteristics, culture understanding, and knowledge management significantly affect management behavior but have no significant effect on the internationalization strategy. Furthermore, management behavior significantly affects internationalization strategy and can mediate the relationships between market characteristics, culture understanding, and knowledge management with internationalization strategy.
Jin Ko [27]	The Differing Foreign Entry Mode Choices for Sales and Production Subsidiaries of Multinational Corporations in the Manufacturing Industry.	Quantitative and qualitative	Logistic regression	Compared to production subsidiaries, multinational corporations in the manufacturing industry are more likely to use the method of entering into full ownership of their production subsidiaries through joint ventures.
Gutiérrez & Machuca [19]	International market entry strategy determinants: an exploratory study in Peru.	Exploratory	Statistical tests in SPSS and component extraction through literature review	Classification of determinants of the entry strategy into two categories, internal and external factors

3 Research methodology

The present research was basic in terms of purpose and had applied orientations. It was also among the mixed-methods studies in terms of data nature and had a descriptive-survey type in terms of data collection. Since the present study presented a general model by leaving aside the components of the grounded theory model, we can claim that it had an inductive approach in terms of philosophical bases. The statistical population of the study consisted of the National Iranian Drilling Company where the implementation process was carried out in both qualitative and quantitative phases.

Methodology in the qualitative phase of research

The grounded theory was the strategy of the qualitative phase. This theory is a method of qualitative research and analyzes data in three stages, open, axial, and selective coding stages. The respondents of the qualitative phase included the National Iranian Drilling Company experts who were selected and surveyed using the snowball sampling method, considering the important property (theoretical data saturation). A semi-structured interview (in-depth interview) was used to survey experts in the qualitative phase of the research. The repeated data were considered after the interview (9), but another interview was conducted to ensure the theoretical saturation of data in the qualitative phase (3), and finally, interviews were conducted with 12 experts in the National Iranian Drilling Company in the qualitative phase. The mean duration of the interviews was 35 minutes, and the interviews were carefully reviewed and written by the research team. During the interviews, guiding questions were also used to obtain important and key points. It continued until the researcher was completely sure of a respondent's data or the respondents admitted that

they had no further answers. The time of each interview was determined according to each respondent's knowledge and willingness. All interviews were fully recorded and then written by the research team. Finally, the texts were carefully analyzed. MAXQDA software was used to analyze data from the qualitative phase. After open coding, a total of 296 codes were extracted, of which 84 codes were removed due to duplication, and finally, 212 codes were used to build concepts. Thereafter, 39 concepts were detected by refining the open codes and were classified into 17 categories by examining the conceptual similarity.

In the second stage of the work, in order to determine the importance and priority of the criteria and sub-criteria of the important categories of market share development based on the strategies of entering the international markets, the Analytical Hierarchy (AHP) method is used.

1. Analytical Hierarchy Process

Saaty [50] developed a strong and helpful tool for managing qualitative and quantitative multi-criteria elements involving in decision-making behavior. This model is called Analytical Hierarchy Process (AHP) and is based on a hierarchical structure. This procedure occupied an assortment of options in the decision and capable to apply sensitivity analysis on the subsequent criteria and benchmarks. In addition, it makes judgments and calculations easy because of paired comparisons. Moreover, it demonstrates the compatibility and incompatibility decisions which is the recompense of multi criteria decision making [32]. Analytical Hierarchy Process is one of the most inclusive system is considered to make decisions with multiple criteria because this method gives to formulate the problem as a hierarchical and believe a mixture of quantitative and qualitative criteria as well. The first step is to create a hierarchy of the problem. The second step is to give a nominal value to each level of the hierarchy and create a matrix of pairwise comparison judgment [31].

2. Steps to Conduct AHP

At the first stage, the issue and goal of decision making brought hierarchically into the scene of the related decision elements. Decision making elements are decision indicators and decision choices. The group established a hierarchy according to Figure 1 which should reflect the understudy problem.

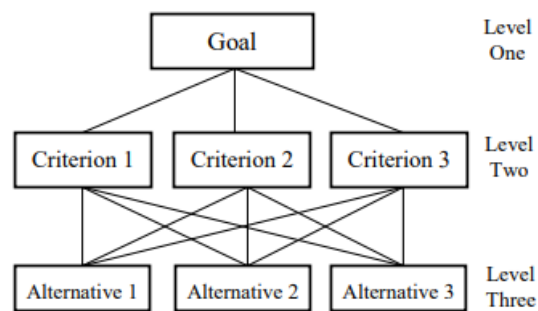


Figure 1: Sample hierarchical tree

In second step and in order to conduct pair comparison, a questionnaire should be designed and distributed among the respondents (can be managers, experts, users and etc.) to collect their opinion. It is noteworthy that each decision maker entered their desired amount for each member and then individual judgments (of each respondents) have been converted into group judgments (for each one of the pair comparison) using their geometrical average. The scale ranges from one to nine where one implies that the two elements are the same or are equally important. On the other hand, number nine implies that one element is extremely more important than the other one in a pairwise matrix. The pairwise scale and the importance value attributed to each number are illustrated in the Table 2, 3 shows the sample of the questionnaire.

Table 2: Relative scale for paired comparison

Intensity of importance		Description
Equal importance	1	Both activities equally contribute to the objective.
Moderate importance	3	Weak or slight importance over another – Experience and judgment slightly favor one activity over another
Strong importance	5	Greater or more essential importance when compared with another – Experience and judgment strongly favor one activity over another.
Very strong importance	7	Very high or demonstrated importance – An activity is favored very strongly over another; its dominance is demonstrated in practice.
Extreme importance	9	Extremely high importance – The evidence favors one activity over another with the highest level of certainty

Source: Adapted from Saaty (1980) and Granemann & Figueiredo (2013)

Table 3: Sample AHP Questionnaire How important are the following security criteria in comparison

Factor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Factor
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Reliability
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Validation
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Verification
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integrity
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Confidentiality
Privacy	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Availability

The data analyze procedure involves the following steps. First the pairwise comparison matrix which is called matrix A is extracted from the data collected from the interviews. The principal right eigenvector of the matrix A is computed as 'w'.

If $a_{ik} \cdot a_{kj} = a^{ij}$ is not confirmed for all k, j , and i the Eigenvector method is selected [26]. If the matrix is incompatible and in case of incomplete consistency, pair comparisons matrix cannot be used normalizing column to get W_i . For a positive and reversed matrix, Eigenvector technique can be used which in it:

$$e^T = (1, 1, \dots, 1)$$

$$W = \lim_{k \rightarrow \infty} \frac{A^k \cdot e}{e^T \cdot A^k \cdot e}$$

To reach a convergence among the set of answers in to successive repetition of this process, calculation should be repeated several times in order to take a decision when facing an incompatible matrix. Then, the following formula is applied to transform the raw data into meaningful absolute values and normalized weight $w = (w_1, w_2, w_3, \dots, w_n)$:

$$Aw = \lambda_{\max} w, \quad \lambda_{\max} \geq n$$

$$\lambda_{\max} = \frac{\sum a_j w_j - n}{w_1}$$

$$A = \{a_{ij}\} \text{ with } a_{ij} = 1/a_{ji}$$

A: pair wise comparison

w: normalized weight vector

λ_{\max} : maximum eigen value of matrix A

a_{ij} : numerical comparison between the values i and j

In the next step, in order to validate the results of the AHP, the consistency ratio (CR) is calculated using the formula, $CR = CI/RI$ in which the consistency index (CI) is, in turn, measured through the following formula:

$$CI = \frac{\lambda_{\max} - n}{n - 1}$$

Table 4: The value of Random Consistency Index, Source: Golden and Wang [18]

Dimension	RI
1	0
2	0
3	0.5799
4	0.8921
5	1.1159
6	1.2358
7	1.3322
8	1.3952
9	1.4537
10	1.4882

The value of RI is related to the dimension of the matrix and will be extracted from Table 4. It should be noted that consistency ratio lower than 0.10 verifies that the results of comparison are acceptable.

Considering that this method is also an expertise-oriented technique and the sample size should be less than 10 people, therefore, in this section, the opinions of the same 12 people selected from the previous stage are again used. Its calculations using Expert choose software, during three stages of pairwise comparisons, normalization, weighting and final ranking, calculation of compatibility rate in judgments, calculation of vectors of local priorities and finally determination of final priorities, market share development criteria based on strategies Entering international markets were prioritized.

4 Research findings

The grounded theory (GT) does not aim to merely describe a phenomenon, but it can produce the theory [14]. The categories and classes presented through coding should be connected with each other in an orderly and structured manner to create a theory. The data are analyzed through three stages, open, axial, and selective coding, in the grounded data strategy. In the open coding stage, the text of the interviews was fully examined and the main and important key points of each text were extracted and a code was assigned to each important point. After conducting the interviews, a total of 296 codes were extracted, of which 84 codes were removed due to duplication, and finally, 212 codes were used to build concepts. After open coding, it is time to extract concepts. The interview text or literature review can be used to extract concepts and codes [54]. In this study, it was sought to use mostly the text of the interviews to extract codes, concepts, and categories because it was expected that a theoretical model would be reached for the research subject by using this process. After open coding, the researcher entered the axial coding stage. At this stage, the researcher refined the open codes and re-examined all the extracted concepts. Thereafter, similar concepts in terms of meaning, typology, and style were placed in the same category. Finally, they were classified based on the conceptual similarity of each abstract concept extracted from the literature, background, and interviews. The categories represented the basis of the grounded theory. In other words, the researcher created a connection between open codes in axial coding and put similar codes in a category, called concepts. Concepts should reflect and indicate their respective codes. Thereafter, similar concepts were placed in a category that created the categories [7]. Thereafter, each category was placed in the main class (dimensions of the grounded theory model). A total of 39 concepts were identified after refining the open codes, and they were categorized into 17 categories by examining conceptual similarity, and each category was placed in a component of the grounded theory strategy.

Table 5: Selective coding

Interview code	Axial code	Selective code
<i>P1, p2, p3, p4, p5, p6, p7, p8, p9, p10, p11, p12</i>	Political and economic factors	Interfering conditions
<i>P4, p6, p7, p9, p10, p11, p12</i>	Social and cultural factors	Interfering conditions
<i>P2, p3, p7, p8, p9, p12</i>	Customer orientation	Strategies
<i>P1, p2, p3, p5, p6, p7, p8, p9, p10, p11, p12</i>	Empowerment and promotion of international capabilities	Strategies
<i>P1, p3, p5, p6, p7, p9, p10</i>	Participation in investment	Strategies
<i>P1, p2, p3, p4, p5, p6, p7, p10, p11, p12</i>	Non-participation in investment	Strategies
<i>P6, p8, p9, p11</i>	Government support	Causal conditions
<i>P2, p3, p6, p7, p9</i>	Factors related to the country of origin	Causal conditions
<i>P9, p11, p12</i>	Factors related to the target market	Causal conditions
<i>P3, p6, p7</i>	Maintaining market share	Axial category
<i>P5, p6, p8, p1, p3</i>	Increasing market size	Axial category
<i>P4, p, p7, p11</i>	Technology upgrade	Consequences
<i>P6, p1, p12, p11</i>	Growth and survival	Consequences
<i>P2, p4, p5, p9, p10, p12, p11</i>	Credit and reputation of the company	Consequences
<i>P6, p8, p2, p10, p12, p3, p7</i>	Communication and functional infrastructure	The existing context
<i>P4, p3, p7, p9, p12</i>	Specialized infrastructure	The existing context
<i>P4, p12, p13, p8, p9, p3, p10, p7, p2</i>	Appropriate policy and planning	The existing context

Selective coding is the main step in grounded theory. In this stage, the axial category is systematically related to other main categories and components of the grounded theory model and is presented in a narrative. In the present study, the researchers expressed the designed paradigm model in the form of a research narrative based on their understanding of the subject. The components included the axial category, causal conditions, existing context, strategies, consequences, and interfering conditions which created a paradigm model.

Now, according to the findings of the qualitative section, the results of the quantitative section are presented. According to the results obtained regarding the pairwise comparison of experts' opinions, the pairwise comparison matrix of National Drilling Company's market share development criteria based on the method of entering international markets is presented as described in Table 4.

4.1 Prioritization of 4 sub-criteria related to the main factor of strategies

The four sub-criteria related to the factor of strategies are:

Customer Orientation; Promotion of international capabilities, participation in investment, non-participation in investment

Table 6: Pairwise comparison matrix of options from the point of view of the whole group before normalization

Non-participation in investment	Participation in investment	Promotion of international capabilities	Customer Orientation	Strategiesc
5.00	0.25	3.00	1.00	Customer Orientation
3.00	0.33	1.00	0.33	Promotion of international capabilities
7.00	1.00	3.00	4.00	Participation in investment
1.00	0.14	0.33	0.20	Non-participation in investment
16.00	1.72	7.33	5.53	columnar plural

Table 7: The final matrix after normalization

Average line	Non-participation in investment	Participation in investment	Promotion of international capabilities	Customer Orientation	Strategies
0.26	0.31	0.15	0.41	0.18	Customer Orientation
0.14	0.19	0.19	0.14	0.06	Promotion of international capabilities
0.54	0.44	0.58	0.41	0.72	Participation in investment
0.06	0.06	0.08	0.05	0.04	Non-participation in investment

Table 8: The final matrix after normalization

Average line	Non-participation in investment	Participation in investment	Promotion of international capabilities	Customer Orientation	Strategies
0.26	0.31	0.15	0.41	0.18	Customer Orientation
0.14	0.19	0.19	0.14	0.06	Promotion of international capabilities
0.54	0.44	0.58	0.41	0.72	Participation in investment
0.06	0.06	0.08	0.05	0.04	Non-participation in investment

Table 9: The consistency rate of expert judgments

CR	CI	λ_{max}	Market development criteria based on the method of entering international markets
0.0138	0.0069	3.06	Main criteria

Source: research findings

In order to ensure the results of this method, the compatibility rate is calculated. The compatibility rate is a measure that shows how much the priorities resulting from pairwise comparisons of experts can be trusted. If the compatibility rate is smaller than 0.1, the compatibility rate is acceptable, otherwise, the comparisons should be repeated and revised. The results of these calculations are presented in above Table. According to the results, it can be seen that the CR rate is less than 0.1. Therefore, the matrix is fully compatible with the opinions of experts.

Table 10: The final weight of the factor indicators of the strategies

Average line	Strategies
0.26	Customer Orientation
0.14	Promotion of international capabilities
0.54	Participation in investment
0.06	Non-participation in investment

In this way, the percentage of relative priority of each of the factors of the strategies is obtained from the point of view of all the respondents:

- The first priority of participation in investment

- The second priority of customer orientation
- The third priority is to improve international capabilities
- The fourth priority of non-participation in investment

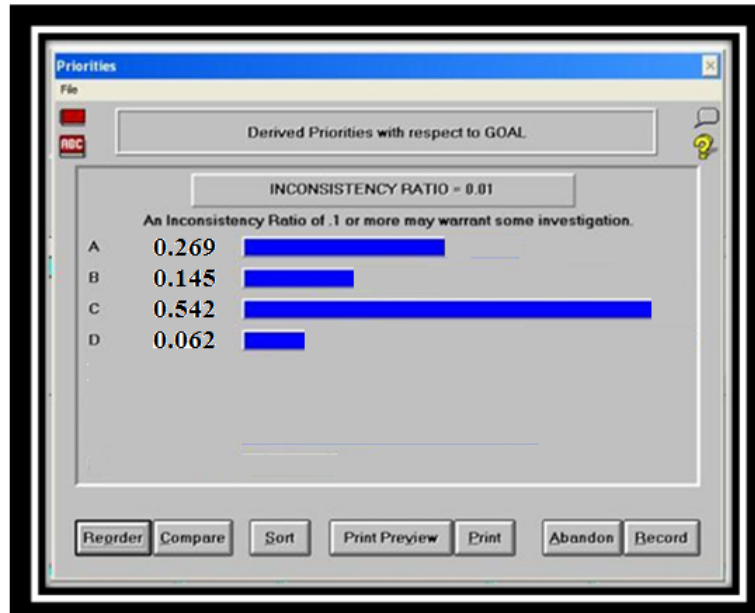


Figure 2: The output of the ranking software of the sub-criteria of strategies

Due to the long and repetitive process of ranking options, for other factors we only refer to the final table and ranking of options:

4.2 Prioritization of 2 sub-criteria related to the main factor of the intervening conditions

Table 11: Prioritization of factor indicators of intervening conditions

rank	Average line	The factor of intervening conditions
First	0.54	Political and economic factors
Second	0.46	Cultural and social factors

The Figure 2 related to the prioritization of the factor indicators of the intervening conditions is presented below:

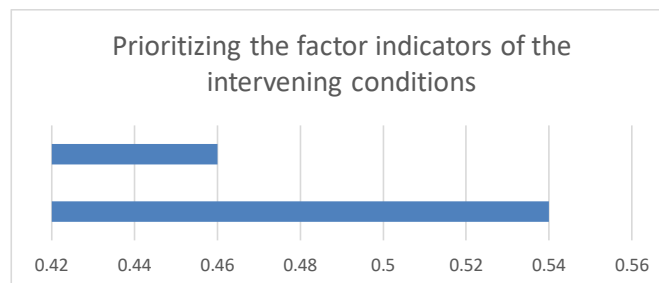


Figure 3: Prioritization of factors influencing the intervention conditions

4.3 Prioritization of 3 sub-criteria related to the main factor of causal conditions

The Figure 3 related to the prioritization of causal conditions factor indicators is presented below:

Table 12: Prioritizing indicators of causal conditions

rank	Average line	Causative agent
Second	0.36	Government support
First	0.44	Factors related to the country of origin
Third	0.20	Factors related to the target market

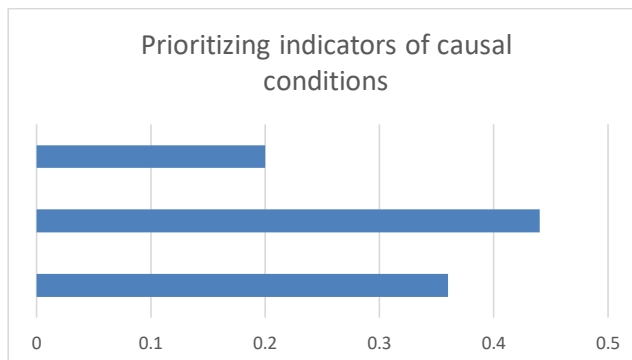


Figure 4: Prioritization of indicators of causal conditions

4.4 Prioritization of 3 sub-criteria related to the main factor of the results

Table 13: Prioritization of indicators of outcome factors

rank	Average line	Consequences factor
Third	0.16	Technology upgrade
Second	0.44	Growth and survival
First	0.51	Credit and reputation of the company

The Figure 4 related to the prioritization of the indicators of the consequences is presented below:

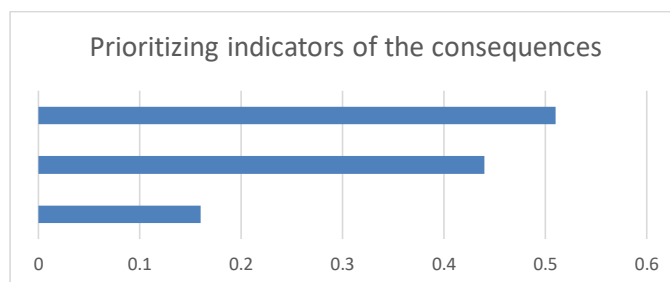


Figure 5: Prioritization of indicators of the consequences factor

4.5 Prioritization of 3 sub-criteria related to the main factor of the central phenomenon

Table 14: Prioritization of indicators of the central phenomenon factor

rank	Average line	The main factor of the phenomenon
Second	0.31	Market share development
First	0.41	Maintain market share
Third	0.28	Increasing market size

The Figure 5 related to the prioritization of the indicators of the central phenomenon is presented below:

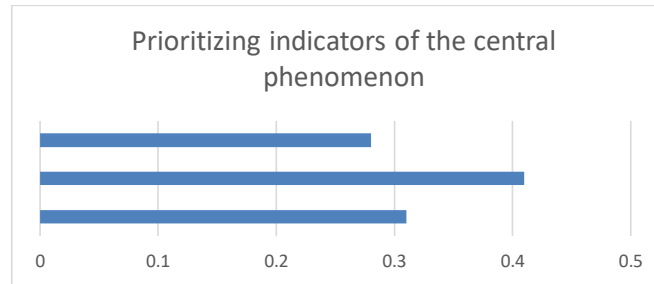


Figure 6: Prioritization of indicators of the central phenomenon

4.6 Prioritization of 3 sub-criteria related to the main factor of the ruling platform

Table 15: Prioritizing the factors of the governing platform

rank	Average line	The underlying factor
Third	0.26	Communication and functional infrastructure
Second	0.29	Specialized infrastructure
First	0.45	Appropriate policy and planning

The Figure 6 related to the prioritization of the factors of the ruling platform is presented below:

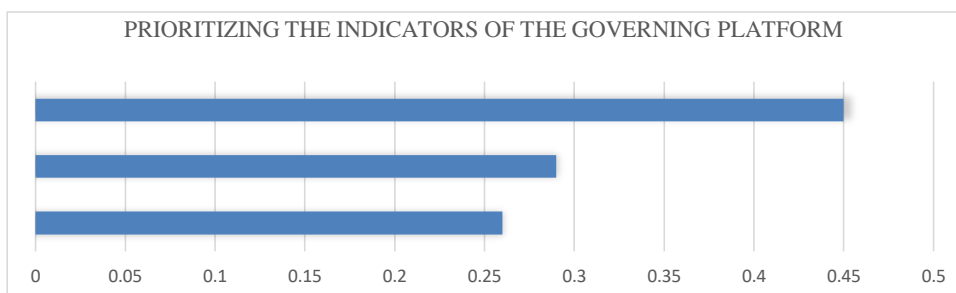


Figure 7: Prioritizing the indicators of the governing platform

Finally, the conceptual form of the research model with the prioritization of the sub-criteria calculated by the AHP method is as follows:

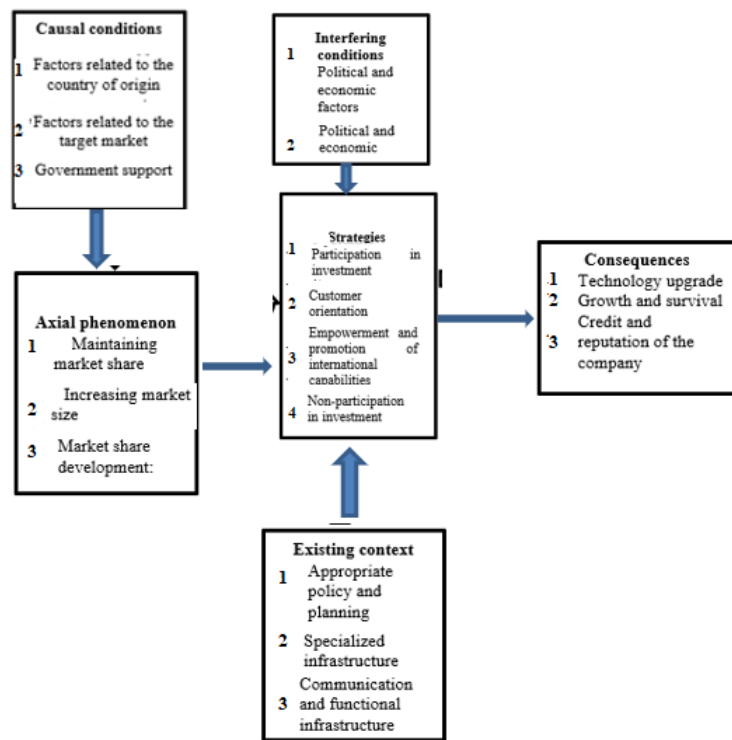


Figure 8: Conceptual model of research

5 Conclusion and suggestions

The most important goal of companies entering international markets is to exploit profitable opportunities. When a company decides to enter the international arena and global markets, it is necessary to make decisions about how to enter and how to operate. As a general rule, it can be said that companies at the beginning of entering international markets should use methods that are simpler and have less risk, in such a way that the economic profit necessary for the continuation of the company’s activities is created. Of course, it is worth mentioning that the importance of each of the entry methods is different from each other. International markets have different characteristics; that companies should carry out studies on the demand capacity of each market, the variability of competition and the conditions of competition in each market, to investigate the feasibility of market needs, and after identifying these issues, to choose a market that can meet its needs compared to competitors take action to fix it in a more efficient and effective way.

Important companies such as Iran’s National Drilling Company, which is known as one of the largest companies in international markets, usually have a range of options to enter international markets that must be identified. Therefore, in this study, an attempt was made to design and explain a model for the development of market share based on strategies to enter foreign markets for this company with a quantitative and qualitative study. This model was obtained in the form of a qualitative model, which after refining the open codes, 39 concepts were identified, and these concepts were classified into 17 categories by examining the conceptual consistency, which were finally classified into 6 main criteria, which are the causal conditions, categories The main ones are the intervening conditions, the ruling platform, strategies and consequences.

In order to check the importance of each of these criteria and their levitization for the final use of Iran’s National Drilling Company to develop its market share, AHP hierarchical analysis method was used, in order of importance and final weight: strategies, central phenomenon, consequences, the causal conditions, the intervening conditions and finally the ruling platform. Therefore, as a general rule, it can be said that important companies generally use simple and less risky methods in the way of entering international markets and developing their market share so that they can expand it while maintaining their market share. Therefore, at first, by relying on strategies such as: customer orientation, empowerment and promotion of global capabilities, it is participation in new investments that can expand its market share.

In the next step, companies can take action by planning to develop the market share, as well as maintain the current market share, find a new market and increase the market size, and ensure profit and its increase. It is natural that along with these two important criteria, paying attention to the outcome criteria will also be very important. The development of technology, the effort to grow and continue to survive, and finally gain the company's global reputation are among the factors that facilitate the development of the company's market share.

Paying attention to different causal conditions, such as obtaining government support, paying attention to various cultural, social and economic factors related to the country of origin and business partner, as well as paying attention to the characteristics of the target markets, are also criteria for facilitating market share. It is natural that in addition to these factors, it will be important to pay attention to intervention conditions such as political-economic factors as well as cultural and social factors of the target markets. Finally, the last criterion, i.e. the ruling platform, also tells about its important impact on the development of the market. Providing communication and functional platform and infrastructures as well as expertise infrastructures and finally proper planning and policymaking are among the important things that, along with other factors, will develop the market share. Therefore, there are a set of these factors that together will determine the market share of Iran's National Drilling Company and other similar companies.

Therefore, the results of this study in relation to important criteria and sub-criteria affecting the development of the market share of companies, with the results of several researches such as Bagheri et al.'s study [10], Tahernejad et al. [55] Mohammadzadeh et al. [38], Malek Akhlaq et al.[39], Rezvani and Gol Alizadeh [49], Pashazadeh and Adel [45], Pham et al. [46] and Verbeke et al. [57], Zamani et al. [59], Khosh Taynet et al. [30] Shakib et al. [53], Ashraf Ahmadian and Parsa Menesh [3], Norochoulis [43] and Jin Koo [27] have agreed.

Therefore, according to the findings of this study, it is suggested that companies that do not have a long experience in the market and intend to expand their market share should first consider the criteria of strategies and its sub-criteria in order to maintain the current market share and expand the current share. also facilitate. Therefore, by following a long-term development strategy, while finding more serious markets, they should also use the benefits of expanding the market scale, and therefore, with various methods such as increasing joint investment and increasing customer orientation, do not neglect the capabilities of foreign partners and attracting the attention of customers. Therefore, as a final suggestion to the managers of these companies, it can be said that before developing the market, it is appropriate to examine all aspects of the issue in order to achieve long-term goals while reducing the costs of possible errors. In addition, due to the involvement of other influential factors, other cases are also suggested as follows:

- * Focusing on foreign markets in countries that have close diplomatic relations with Iran.
- * Removal of cumbersome and redundant regulations by the government for export
- * Providing an integrated strategic marketing plan to enter foreign target markets
- * Gaining experience from strategic and experienced partners in the field of export
- * Identifying ways to expand technology and technology cooperation with neighboring countries
- * Providing suitable policies for export development
- * Development of e-commerce and information and communication infrastructure
- * Development of communication distribution networks to access foreign target markets
- * Providing appropriate qualitative and quantitative standards in line with international and global standards to serve foreign target markets
- * Using modern information and communication technologies to access the target markets and facilitate the process of purchasing assignments and services for foreign customers.
- * Amendment of trade laws by the government in order to strengthen and support international trade activities
- * Training and development of human resources
- * Creating a suitable platform from the government to strengthen economic activities
- * Adjusting government policies to support international business activities
- * Creating a culture of work and effort and institutionalizing and strengthening the cultural spirit
- * Empowering the company, which will have a significant impact on its success in exporting.

References

- [1] H. Abbasi Esfenajji, M. Salimi Baher, and M.T. Khodaei Gargari, *A study on the effect of business knowledge on the process of internationalization of businesses*, Roshde Fanavari Pub. **15** (2019), no. 58, 13–22.
- [2] E. Affum-Osei, E.A. Asante, S.K. Forkouh, M.O. Aboagye, and C.O. Antwi, *Unemployment trends and labor market entry in Ghana: Job search methods perspective*, Labor History **60** (2019), no. 6, 716–733.
- [3] A.A. Ahmadian and M. Parsamenesh, *Identifying the determinants of successful presence of Iranian exporting companies in foreign markets*, Bus. Rev. **14** (2016), no. 77, 1–15.
- [4] M. Ahmadzadeh, A. Naami, and S.M. Hashemi, *Presenting the international market development model (case study: petrochemical products)*, Bus. Admin. **13** (2021), no. 2, 384–411.
- [5] S.H. Ang, M.H. Benischke, and J.P. Doh, *The interactions of institutions on foreign market entry mode*, Strategic Manag. J. **36** (2015), no. 10, 1536–1553.
- [6] M. Ayati Mehr and F. Beigi, *Statistical analysis in business*, First edition, Tarava Publications, Ahvaz, Iran, 2018.
- [7] M. Ayati Mehr and F. Beigi, *Research Methodology in Management*, First edition, Ghahveh Publications, Ahvaz, Iran, 2020.
- [8] N. Azad and N. Pourahmadian, *Identification and ranking of the factors influencing the entry into international markets on the market share with the mediation of statistical process control (case study: drug manufacturing companies located in Tehran, present on the stock market)*, Third Conf. Ind. Engin. Econ. Manag., 2019.
- [9] A. Azar and M. Momeni, *Statistics and its application in management (statistical analysis)*, Second edition, Tehran, SAMT, 2017.
- [10] A. Bagheri, J. Bammad Soufi and R. Entezari, *Identifying and ranking the effective factors of international market entry (Case study: Major car manufacturers of Iran)*, Technol. Dev. Manag. Quart. **1** (2013), no. 2, 111–134.
- [11] X. Bai, *Research on the Strategy of Chinese Automobile Enterprises Entering Overseas Markets*, 2019.
- [12] F.R. Cahen, S. Lahiri, and F.M. Borini, *Managerial perceptions of barriers to internationalization: An examination of Brazil's new technology-based firms*, J. Bus. Res. **69** (2016), no. 6, 1973–1979.
- [13] W.W. Chin, J.-H. Cheah, Y. Liu, H. Ting, X.-J. Lim, and T.H. Cham, *Demystifying the role of causal-predictive modeling using partial least squares structural equation modeling in information systems research*, Ind. Manag. Data Syst. **120** (2020), no. 12, 2161–2209.
- [14] H. Danaeifard, S. M. Alvani and A. Azar, *Qualitative Research Methodology in Management: A Comprehensive Approach*, Saffar Publications, 6th Edition, Tehran, Iran, 2019.
- [15] A. Farrokhbakht Foumani, V. Mirabi, Gh. Bazaei, and H. Amiran, *Designing a tea export marketing strategy model for target markets*, Int. J. Agricul. Manag. Dev. **9** (2019), no. 2, 177–190.
- [16] M. Faryabi, S. Rahimi Aghdam, V. Ebrahimi Kharajo, and S. Kazemi, *A study on the effect of organizational, strategic, and environmental factors on export performance: Analysis of the role of innovative export among export companies*, Sci. Res. J. Int. Bus. Admin. **4** (2021), no. 2, 63–86.
- [17] H. Ghazvini and M. Maleki Minbash Zargah, *Identifying and prioritizing marketing sub-mixes with an Islamic marketing approach in international market entry (case study: plaster factories of Semnan province)*, Strategic Manag. Thought **12** (2018), no. 2, (serial No. 24), 334–351.
- [18] B.L. Golden and Q. Wang, *An alternate measure of consistency*, B. L. Golden, A. Wasil & P.T. Harker (eds.), Analytic Hierarchy Process: Applications and Studies, Springer Verlag, New-York. 1990, pp. 68–81.
- [19] F.R. Gutiérrez and K.L.J. Machuca, *International markets entry strategy determinants: An exploratory study in Peru*, Cuadernos Admin. **33** (2017), no. 59, 2–19.
- [20] J.F. Hair, W.C. Black, B.J. Babin, and R.E. Anderson, *Multivariate data analysis*, (8th ed.), Cengage Learning, London, 2019.
- [21] J.F. Hair, G.T.M. Hult, C.M. Ringle, and M. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*, (3rd ed.), Thousand Oaks, Sage, 2022.

- [22] A.A. Hassanvand, D. Hassanvand, and Y. Nadami, *The effects of sanctions on Iran's non-oil exports*, Strategic Macro Policy Quart. **4** (2018), no. 6, 666–684.
- [23] F. Hemmati, M. Hamidizadeh, B. Hajipour, and Sh. Azizi, *Designing and explaining the international capability model of companies exporting agricultural products to enter global markets*, Public Admin. Res. **11** (2018), no. 41, 29–56.
- [24] J. Henseler, C.M. Ringle and M. Sarstedt, *A new criterion for assessing discriminant validity in variance-based structural equation modeling*, J. Acad. Market. Sci. **43** (2015), no. 1, 115–135.
- [25] H. Hwang, M. Sarstedt, J.-H. Cheah, and C.M. Ringle, *A concept analysis of methodological research on composite-based structural equation modeling: Bridging PLSPM and GSCA*, Behaviormetrika **47** (2020), no. 1, 219–241.
- [26] N. Jalaliyoon, N.A. Bakar, and H. Taherdoost, *Accomplishment of critical success factor in organization; using analytic hierarchy process*, Int. Jo. Acad. Res. Manag. **1** (2012), no. 1, 1–9.
- [27] S. Jin Ko, *The differing foreign entry mode choices for sales and production subsidiaries of multinational corporations in the manufacturing industry*, Sustainability **11** (2019), no. 5, 4089.
- [28] L. Kaufmann and J. Gaeckler, *A structured review of partial least squares in supply chain management research*, J. Purchas. Supply Manag. **21** (2015), no. 4, 259–272.
- [29] G. Khan, M. Sarstedt, W.-L. Shiau, J.F. Hair, C.M. Ringle, and M. Fritze, *Methodological research on partial least squares structural equation modeling (PLS-SEM): A social network analysis*, Internet Res. **29** (2019), no. 3, 407–429.
- [30] B. Khoshtinat, A. Shahabadi, M. Shojaei Shad, and A. Moradi, *The effect of innovation on the market share of selected countries in the world's non-oil exports*, Innov. Manag. **8** (2019), no. 4, 151–171.
- [31] M. Krejnus, J. Stofkova, K.R. Stofkova, and V. Binasova, *The use of the DEA method for measuring the efficiency of electronic public administrations as part of the digitization of the economy and S=society*, Appl. Sci. **13** (2023), no. 6, 3672.
- [32] M.C. Lee, *A method of performance evaluation by using the analytic network process and balanced scorecard*, Int. Conf. Converg. Inf. Technol., 2007.
- [33] G. Li, X. Zhang, S.M. Chiu, M. Liu, and S.P. Sethi, *Online market entry and channel sharing strategy with direct selling diseconomies in the sharing economy era*, Int. J. Prod. Econ. **218** (2019), 135–147.
- [34] J.-B. Lohmöller, *Latent variable path modeling with partial least squares*, Heidelberg, 1989.
- [35] G.D. Markman, P. Gianiodis, G. Tyge Payne, C. Tucci, I. Filatotchev, R. Kotha and E. Gedajlovic, *The who, where, what, how, and when of market entry*, J. Manag. Stud. **56** (2019), no. 7, 1241–1259.
- [36] M. Masoum, R. Mohammad Kazemi, and B. Zarei, *Identifying and prioritizing methods of international market entry (case study: organic fertilizers)*, Busi. Rev. **18** (2020), no. 100, 77–90.
- [37] S. Mirghorbani Ganji, *A study on obstacles to the development of non-oil exports and identifying export enhancing factors*, Smart Ind. Manag. (2013), no. 10/ serial no. 151, 23–29.
- [38] S.H. Mohammadzadeh, A. Karbasi, and H. Mohammadi, *Determinants of the choice of strategies for entering the foreign market of medicinal plants; case study: Razavi Khorasan Province*, Agricul. Dev. Econ. **32** (2018), no. 2, 185–197.
- [39] E. Malekakhlagh, S.M. Nopasand Asil, and Kh. Jamali Abbasali, *Evaluation strategies to enter foreign markets Iran Khodro using BSC and fuzzy AHP*, J. Bus. Admin. Res. **5** (2013), no. 9, 85–104.
- [40] M.R. Moreira, M.A. Maia, P.S. Sousa, and R.F.C. Meneses, *Factors influencing the internationalization of services firms: The case of design, engineering and architecture consulting firms*, Explor. Serv. Sci.: 4th Int. Conf. IEES 2013, Porto, Portugal, February 7-8, 2013. Proc. 4. Springer Berlin Heidelberg, 2013, pp. 246–262.
- [41] E.R.D. Muhlas and S. Prihatiningtyas, *Marketing strategy for creative SMEs in entering the export market*, INCOME: Innov. Econ. Manag. **1** (2021), no. 1, 16–21.
- [42] C. Nitzl, *The use of partial least squares structural equation modeling (PLS-SEM) in management accounting research: Directions for future theory development*, J. Account. Literature **37** (2016), 19–35.

- [43] L. Nurcholis, *How to improve internationalization strategy based on market characteristics, culture understanding, and knowledge management: The mediating effect of management behavior*, J. Knowledge Econ. **12** (2021), no. 4, 1717–1740.
- [44] S.A. Oboudi and M. Basirat, *A study on the effect of marketing culture on the performance of National Iranian Drilling Company from the managers' perspective*, First Int. Conf. Manag. Account. Educ. Sci. Resistance Econ. Action Practice, Sari, Baran Andisheh Scientific-Research Company, 2016.
- [45] Y. Pashazadeh and Z. Adel, *The effect of company's specific factors and obstacles to their international market entry strategies using the structural equation modeling technique (Case study: Companies active in dry fruits)*, Explor. Bus. Manag. **11** (2019), no. 21, 141–161.
- [46] V.Q. Pham, B.K.Q. Nguyen, and T.Q. Le, *Success factors affecting internationalization process of large Vietnamese companies: A conceptual framework*, J. Asian Finance Econ. Bus. **7** (2020), no. 11, 905–913.
- [47] S.C. Manley, J.F. Hair, R. I. Williams, and W.C. McDowell, *Essential new PLS-SEM analysis methods for your entrepreneurship analytical toolbox*, Int. Entrepreneur. Manag. J. **17** (2021), 1805–1825.
- [48] E. Reková, *Marketing strategies of "Born Globals" companies when entering the foreign market*, Trends Econ. Manag. **12** (2018), no. 31, 87–100.
- [49] A. Rezvani Gol and F. Alizadeh, *Evaluation and analysis of food product entry strategies in foreign markets*, J. New Market. Res. **1** (2011), no. 3, 193–218.
- [50] T.L. Saaty, *The Analytic Hierarchy Process*, McGraw-Hill, New York, 1980.
- [51] M. Sarsted, J.F. Hair, C.M. Ringle, K.O. Thiele, and S.P. Gudergan, *Estimation issues with PLS and CB-SEM: Where the bias lies!*, J. Bus. Res. **69** (2016), no. 10, 3998–4010.
- [52] M. Schellenberg, M.J. Harker and A. Jafari, *International market entry mode—a systematic literature review*, J. Strategic Market. **26** (2018), no. 7, 601–627.
- [53] B. Shakib, B. Nazem Roaya, and S. Liravianian, *Identification of determinants of choosing international market entry strategies*, Int. Conf. Chall. Sol. Econ. Dev. Manag., 2017.
- [54] A. Strauss and J. Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Thousand Oaks, CA: Sage, 2008.
- [55] K. Tahernejad, H. Rangriz and M.M. Mozaffari, *Designing a causal model for international market entry strategies*, Int. Bus. Manag. **4** (2021), no. 3, 23–43.
- [56] Z. Valipouri and B. Tabrizian, *Designing the process of increasing sales and market share of dairy companies based on the sensory marketing model*, Bus. Manag. Explor. **26** (2021), no. 20, 435–454.
- [57] A. Verbeke, L. Ciravegna, L.E. Lopez, and S.K. Kundu, *Five configurations of opportunism in international market entry*, J. Manag. Stud. **56** (2019), no. 7, 1287–1313.
- [58] G.F. Watson IV, S. Weaven, H. Perkins, D. Sardana, and R.W. Palmatier, *International market entry strategies: Relational, digital, and hybrid approaches*, J. Int. Market. **26** (2018), no. 1, 30–60.
- [59] A. Zamani, M.H. Rahmati, H. Zandhesami, and H. Yazdani, *An analysis of motivating and inhibiting factors of international strategic cooperation of knowledge-based companies (case study: Iranian and German biotechnology companies)*, Sci. Res. J. Int. Bus. Manag. **2** (2019), no. 2, 145–169.
- [60] S. Zerihun, *A firm's choice between direct and indirect export channel of exports by: A study of manufacturing firms in Sub-Saharan African Economies*, 2012, Available at SSRN: <https://ssrn.com/abstract=2167982> or <http://dx.doi.org/10.2139/ssrn.2167982>.