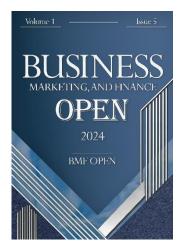


# Identification and Evaluation of Marketing and Sales Models in Industrial Markets (Case Study: The Bitumen Industry)



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Abstract: The aim of this research was to identify and evaluate marketing and sales models in industrial markets, with a focus on the bitumen industry. The study was conducted using both exploratory and survey methods. In the qualitative section, the Delphi method was employed, while in the quantitative section, Interpretive Structural Modeling (ISM) and Structural Equation Modeling (SEM) were utilized. In the qualitative section, as well as in the Interpretive Structural Modeling method, the population consisted of managers and experts from companies active in the bitumen industry in the year 2024. A purposive sampling method was used, selecting 14 individuals. Relevant factors influencing the model were identified using library research techniques. Initially, the Delphi method was used to filter and evaluate the identified factors. Subsequently, using both the Delphi method and Interpretive Structural Modeling, the modeling process was carried out. The software tools used were EXCEL and MICMAC. The quantitative population comprised the employees and customers of the bitumen industry, with an unlimited number of individuals. Using Cochran's formula, a sample size of 384 individuals was selected. A total of 1000 questionnaires were distributed, with 669 valid responses selected for analysis. Based on the researcher-designed questionnaire and qualitative analysis, data analysis was carried out using coding and path analysis techniques. To fit the proposed model, Structural Equation Modeling (SEM) techniques were used in the SMARTPLS software. According to the Delphi technique, 17 categories were identified: optimal marketing performance, increased profitability, economic conditions, laws and regulations, political conditions, technology, product innovation, market conditions, product quality, pricing, financial strategies, brand management, production capabilities, increased customer satisfaction, market differentiation, increased market share, and improved product quality. As a result, the design of marketing and sales models in industrial markets, especially in the bitumen industry, requires a comprehensive and multifaceted approach. This model should carefully consider factors such as product quality, competitive pricing, production capabilities, and innovation at the highest level, as well as the impacts of political conditions and laws and regulations at the secondary level. On the other hand, optimizing marketing performance and increasing profitability as primary goals can only be achieved when companies utilize precise market analysis, product innovation, and the use of new technologies to improve the supply chain and enhance exports. Ultimately, this approach can help companies in the bitumen industry enhance customer satisfaction and achieve sustainable success in both domestic and international markets with high competitiveness.

Keywords: Marketing, Sales Management, Industrial Marketing, Bitumen Marketing.

#### 1. Introduction

The initiation of any bitumen marketing activity requires identifying the market and customer needs. Conducting market research, analyzing competitors, assessing communities, and identifying customer needs are initial steps in bitumen marketing [1]. The marketing and sales model in industrial markets encompasses the methods and strategies companies employ in selling their products and services to other industries and companies. Industrial markets generally involve the sale of products and services to corporations, organizations, manufacturing units, and businesses [2].

In designing the marketing and sales model for industrial markets, factors such as market analysis, customer identification, pricing strategies, advertising, customer communication, and relationship management play a key role. A precise understanding of the market and competitors is essential for designing the marketing and sales model in industrial markets [3-5]. Market analysis is conducted by examining competitors, target customers, their needs and preferences, the company's competitive advantages, and environmental factors [6]. A thorough understanding of target customers and their needs for the company's products and services is the most crucial factor in designing the marketing model. By understanding customer needs and preferences, effective marketing and sales strategies can be developed to attract and retain them [7].

In industrial markets, pricing strategy holds high importance. Prices should be set in a way that satisfies customer demands and ensures profitability for the company, considering the company's competitive advantages, costs, added value of products and services, and customer needs [8]. The use of appropriate advertising methods and effective communication with customers is part of the marketing and sales strategies in industrial markets [9]. Direct advertising, participation in industrial exhibitions and events, the use of specialized industrial media, online advertising techniques, and providing useful content about products and services are among the methods used in this area [10].

Furthermore, in industrial markets, long-term and constructive relationships with customers are crucial [11]. Customer relationship management includes maintaining continuous communication, addressing customer needs and issues, providing after-sales services, and establishing close and effective relationships with customers. In industrial markets, collaboration networks and relationships with other companies and individuals are important. Establishing effective relationships with suppliers, distributors, secondary customers, and other related entities can contribute to enhancing the sales and marketing of products and services [12].

Based on conducted studies, issues in the bitumen industry include the lack of quality standards, absence of modern equipment and devices, insufficient training, and non-compliance with health regulations. Additionally, some of the challenges in the bitumen industry include a lack of focus on environmental concerns, reduced product quality, and insufficient oversight of the production process [13].

To resolve these challenges in the bitumen industry, adherence to quality standards, the use of modern equipment and devices, sufficient training, compliance with health regulations by workers, oversight of the production process, development of new and clean technologies, use of high-quality raw materials, proper storage and transportation of raw materials and products, recycling and reusing bitumen, expanding the export market for bitumen, and collaborating with universities and research centers are recommended [14]. Additionally, improving the quality of bitumen can be achieved through adherence to quality standards, the use of modern equipment and devices, adequate training, and compliance with health regulations by workers, as well as oversight of the production process [15]. The use of high-quality raw materials and the proper storage and transportation of raw

materials and products can also help improve bitumen quality [16]. Furthermore, according to information available on petrochemical websites, the marketing dilemma in the bitumen industry results from mismanagement in this sector and lack of proper planning. Therefore, private sector proposals should be included in the Seventh Development Plan to ensure an efficient future development strategy [17].

Finally, it can be concluded that designing a marketing and sales model in industrial markets should be done considering the characteristics and needs of these markets. Additionally, flexibility and adaptation to market changes, optimal resource management, and leveraging new technologies are essential in this context. The integration of sales and marketing has recently become an academic topic of interest, requiring further research. There is now compelling empirical evidence that the integration of sales and marketing has a positive impact on business and industry performance [18]. This raises the question of when sales and marketing management is effective in industrial changes based on market conditions [19].

This study examines the bitumen industrial market. The bitumen industry in Iran, with more than 80 production units, hundreds of billions in private sector investment, and an annual production of 6 million tons of bitumen across the country, is responsible for supplying the bitumen required for national infrastructure projects and construction projects. An examination of the changes in the bitumen industry in Iran and worldwide last year indicates [20, 21].

Iran's share in the global market has decreased for four reasons: the prominent presence of Russia in informal markets, Western sanctions, domestic regulations affecting the sector, and increasing customer preference for lowquality bitumen. The latest analyses and statistical data indicate that bitumen production in Iran reaches approximately 6 million tons annually, with a dollar value of around 1.5 billion dollars. Given the very high consumption of this material in the country and Iran being recognized as one of the raw bitumen producers from petroleum derivatives, innovative projects in this industry hold significant importance. Therefore, this research, considering the bitumen industry as a case study, seeks an answer to the question of how the marketing and sales model in industrial markets works.

#### 2. Methodology

The research was conducted in an exploratory and survey-based manner. In the qualitative section, the Delphi method was used, while in the quantitative section, the interpretive structural modeling (ISM) method and structural equation modeling (SEM) were employed. In the qualitative section, as well as in the interpretive structural modeling method, the study population consisted of managers and experts from companies active in the bitumen industry in the year 2024, from which 14 individuals were selected using a judgmental sampling technique. The factors influencing the model were identified through library research. Initially, the Delphi technique was used to screen and evaluate the identified factors. Subsequently, the Delphi method and interpretive structural modeling were used for modeling. The software used for analysis were EXCEL and MICMAC.

In the quantitative section, the population consisted of the employees and customers of the bitumen industry, with an unlimited number of individuals. Using Cochran's formula, 384 individuals were selected as the sample. A total of 1,000 questionnaires were distributed, and 669 suitable questionnaires were chosen for analysis.

Based on the researcher-designed questionnaire and the qualitative analysis, data analysis was performed using coding and path analysis. Data analysis was carried out using interpretive structural modeling and path analysis methods. Interpretive structural modeling is a qualitative data analysis method used in social sciences and management. In this method, various factors involved in a research phenomenon are identified using interviews

or other qualitative sources. Then, using the interpretive structural method, the relationships between these factors are established, and structural diagrams are created to represent these relationships. This method allows for analyzing the complexities, connections, and patterns present in qualitative data.

Structural equation modeling is a quantitative data analysis method used to examine the relationships between variables and to confirm or reject research hypotheses. In this method, using statistical modeling, the relationships between variables and their effects on each other are explored. Structural equation modeling allows researchers to investigate causal relationships resulting from the direct or indirect effects of variables and, through hypothesis testing, either confirm or reject the results of the analysis. Based on the sampling process, the proposed model was fitted using the structural equation modeling technique in SMARTPLS software.

#### 3. Findings and Results

In this study, a total of 17 main components were identified through a literature review. To ensure the validity of the identified dimensions and components and to verify their credibility, the Delphi technique was used to answer the research questions. The Delphi method was implemented as follows:

Questions	Mean	Median	Mode	Standard Deviation	Range	First Quartile	Second Quartile	Third Quartile	Status
Optimal marketing performance	3.769	4	5	1.268	4	3	4	5	Confirmed
Increased profitability	3.243	3	3	1.291	4	2	3	4	Confirmed
Economic conditions	3.589	4	3	1.110	4	3	4	5	Confirmed
Laws and regulations	3.289	3	3	1.000	4	3	3	4	Confirmed
Political conditions	3.000	3	3	0.939	4	2	3	4	Confirmed
Technology	3.487	4	4	1.065	4	3	4	4	Confirmed
Product innovation	3.371	3	3	0.981	4	3	3	4	Confirmed
Market conditions	4.179	4	5	0.922	4	4	4	5	Confirmed
Product quality	3.038	3	3	0.844	4	3	3	3.25	Confirmed
Pricing	3.153	3	3	1.057	4	2.75	3	4	Confirmed
Financial strategies	3.730	4	4	0.935	4	3	4	4	Confirmed
Brand management	3.025	3	3	0.882	4	3	3	4	Confirmed
Production capacity	3.730	4	4	1.052	4	3	4	5	Confirmed
Increased customer	3.205	3	3	0.930	4	3	3	4	Confirmed
satisfaction									
Market differentiation	3.896	3	3	0.981	4	2	3	3	Confirmed
Increased market share	3.038	3	3	0.959	4	2	3	4	Confirmed
Improved product quality	3.157	3	3	1.046	4	3	3	4	Confirmed

Based on the results obtained from the Delphi technique, all components scored above 5. Therefore, no component was removed, and all were confirmed. The Kendall statistic was also found to be 0.765, which is deemed acceptable. Hence, the first round of the Delphi method is confirmed.

To further analyze the data, the Interpretive Structural Modeling (ISM) method was applied using the MICMAC software. ISM is a method used to examine the effect of each variable on other variables; it is a comprehensive approach for measuring relationships and is used to develop a framework model to make the research objectives achievable.

To determine the relationships and ranking of criteria, the output and input sets for each criterion were extracted from the received matrix.

- Achievement Set (row elements, output or effects): Variables that can be reached through this variable.
- Pre-requisite Set (column elements, input or influences): Variables that can lead to this variable.

The output set includes the criterion itself and those that are influenced by it, while the input set includes the criterion itself and those that influence it. After determining the two-way relationships of criteria, the following table illustrates the input-output sets for each variable:

Row	Variables	Row Set	Column Count	
1	Optimal marketing performance	1	17	
2	Increased profitability	1	17	
3	Economic conditions	11	13	
4	Laws and regulations	13	6	
5	Political conditions	12	7	
6	Technology	11	9	
7	Product innovation	11	1	
8	Market conditions	10	6	
9	Product quality	11	1	
10	Pricing	10	1	
11	Financial strategies	7	8	
12	Brand management	6	9	
13	Production capacity	16	5	
14	Increased customer satisfaction	10	10	
15	Market differentiation	9	12	
16	Increased market share	7	14	
17	Improved product quality	10	13	

Table 2. Input and Output Sets (Influences) for Each Variable

For variable C\_i, the achievement set (output or influences) includes the variables that can be reached through C\_i, while the pre-requisite set (input or influences) includes the variables that lead to C\_i. After determining both sets, the intersection of the two sets is calculated. The first variable whose intersection of both sets equals the achievement set will be assigned the first level. Thus, the variables at level one will have the highest influence in the model.

After identifying the first-level variables, these are removed, and the input-output sets are recalculated without considering the first-level variables. The intersection set and variables whose intersection equals the input set are selected as the second-level variables.

The variables C4-C5 are the second-level variables.

The variables C3-C6-C8 are the third-level variables.

The variables C11-C12 are the fourth-level variables.

The final pattern of the identified variable levels is displayed in the figure. In this diagram, only the meaningful relationships of elements at each level with elements at the lower levels and the internal meaningful relationships of elements within each row are considered.

Based on the structural-interpretive modeling calculations, 17 categories have been identified and classified according to these concepts. These 17 categories are as follows: optimal marketing performance, profitability increase, economic conditions, laws and regulations, political conditions, technology, product innovation, market conditions, product quality, pricing, financial strategies, brand management, production capabilities, customer

satisfaction increase, market differentiation, market share increase, and product quality improvement. The qualitative questionnaire was designed based on these categories. The descriptive statistics of the identified criteria are shown in Table 3 below.

Variables	Ν	Mean	Skewness	Kurtosis	Variance	Range
Optimal marketing performance	668	3.6	0.808	0.002	0.375	3
Profitability increase	668	3.775	1.461	-0.584	0.446	3.33
Economic conditions	668	4.0842	-0.058	-0.263	0.231	2.33
Laws and regulations	668	3.825	-0.216	0.566	0.225	2
Political conditions	668	3.6729	-0.496	0.314	0.339	2.25
Technology	668	4.2229	-0.625	-0.47	0.358	2
Product innovation	668	4.0938	0.018	-0.032	0.192	2.25
Market conditions	668	3.8734	-0.883	0.163	0.465	2.5
Product quality	668	3.7405	-0.301	-0.171	0.473	3
Pricing	668	4.3938	-0.241	-0.621	0.302	2
Financial strategies	668	4.1	-0.938	0.134	0.319	2
Brand management	668	3.8397	0.273	-0.318	0.399	3
Production capabilities	668	4.1542	-0.8	0.051	0.259	2
Customer satisfaction increase	668	3.9	0.088	-0.558	0.439	3
Market differentiation	668	3.9125	1.215	-0.628	0.41	3
Market share increase	668	4.1417	1.677	-0.749	0.213	2.67
Product quality improvement	668	3.6937	-0.001	0.041	0.459	3

Table 3. Mean and Standard Deviation of Model Components

As seen in Table 3, the mean, standard deviation, and the minimum and maximum values for the components of the marketing and sales model in industrial markets (specifically the asphalt industry) are shown separately. Considering the five options for each statement, the number 3 is considered the average for each of the statements. As observed, the mean of all components is greater than 3, indicating that they are at a satisfactory level in the statistical population. Additionally, since the skewness and kurtosis values for the mentioned variables fall within the range of ±2, it can be concluded that the data distribution is likely normal. Table 4 presents the convergence validity of the criteria based on Cronbach's alpha, composite reliability, and extracted variance indices.

Table 4. Results of Cronbach's Alpha, Composite Reliability, and Convergence Validity for the Marketing
and Sales Model in Industrial Markets (Asphalt Industry Study)

Variables	Cronbach's Alpha	AVE	CR
Optimal marketing performance	0.726	0.563	0.816
Profitability increase	0.722	0.519	0.853
Economic conditions	0.738	0.534	0.740
Laws and regulations	0.764	0.538	0.755
Political conditions	0.865	0.530	0.801
Technology	0.790	0.566	0.864
Product innovation	0.737	0.601	0.783
Market conditions	0.811	0.604	0.764
Product quality	0.825	0.633	0.758
Pricing	0.803	0.614	0.794
Financial strategies	0.784	0.628	0.733
Brand management	0.775	0.570	0.832
Production capabilities	0.856	0.611	0.896
Customer satisfaction increase	0.736	0.535	0.827
Market differentiation	0.794	0.582	0.736
Market share increase	0.781	0.620	0.804

Business, Marketing	, and Finance Open,	Vol. 1, No. 5
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0.764 0.609 0.763	Product quality improvement	0.764	0.609	0.763
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Since the appropriate value for Cronbach's alpha is 0.7, for composite reliability is 0.7, and for AVE is 0.5, and according to the findings in Table 5, all criteria for the latent variables have adequate values. Therefore, the reliability and convergence validity of the identified criteria can be confirmed.

To examine discriminant validity, the Fornell-Larcker criterion was used, as shown in Table 5. This table shows the correlations between the latent constructs of the research model to assess the discriminant validity.

# Table 5. Correlation Coefficients of the Latent Constructs in the Research Model (for Divergent Validity

								Confi	rmatio	n)							
	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11	C12	C13	C14	C15	C16	C17
C0	0.85																
1	3																
C0	0.82	0.89															
2	0	5															
C0	0.83 6	0.81 0	0.87 7														
3 C0	6 0.59	0 0.41	7 0.37	0.88													
4	2	0.41	0.37 6	0.00 9													
C0	0.54	0.84	0.85	0.87	0.89												
5	3	9	9	0	1												
C0	0.54	0.53	0.80	0.53	0.66	0.89											
6	9	7	4	6	3	2											
C0	0.60	0.77	0.81	0.71	0.53	0.46	0.89										
7	4	5	0	7	6	3	4										
C0	0.59	0.75	0.65	0.55	0.72	0.60	0.62	0.86									
8	7	6	3	3	9	0	7	6									
C0 9	0.58 4	0.74 0	0.58	0.63	0.58 2	0.62 7	0.73	0.75	0.81								
9 C1	4 0.66	0 0.71	4 0.73	4 0.33	2 0.75	7 0.53	5 0.63	5 0.53	0 0.69	0.84							
0	0.66 7	0.71	0.73 6	0.55	0.75 3	0.55 7	0.83 5	0.55 7	0.69 6	0.84 8							
C1	0.33	0.59	0.61	0.73	0.78	0.52	0.63	0.62	0.63	0.81	0.85						
1	0	5	0	8	2	6	8	9	6	1	4						
C1	0.43	0.64	0.53	0.74	0.71	0.53	0.62	0.66	0.55	0.59	0.83	0.89					
2	5	7	7	9	1	8	0	2	6	3	6	0					
C1	0.43	0.63	0.68	0.53	0.53	0.32	0.33	0.53	0.73	0.71	0.62	0.86	0.88				
3	9	9	4	8	7	7	3	5	5	9	8	4	6				
C1	0.37	0.77	0.64	0.63	0.66	0.38	0.50	0.73	0.63	0.46	0.50	0.63	0.73	0.83			
4	3	3	7	8	6	4	0	9	8	4	2	7	7	4	0.00		
C1 5	0.51 7	0.73 9	0.40 3	0.73 8	0.72 8	0.73 8	0.38 3	0.52 7	0.73 9	0.43 9	0.55 3	0.38 8	0.63 6	0.50 8	0.83 7		
C1	0.40	0.37	0.63	0.62	0.42	0.35	0.77	0.63	0.33	0.68	0.45	0.48	0.59	0.79	0.72	0.84	
6	2	4	0	7	9	2	3	9	3	6	7	3	3	3	8	0	
C1 7	0.43 0	0.33 4	0.63 8	0.63 6	0.48 3	0.34 2	0.36 2	0.52 5	0.71 8	0.53 5	0.71 0	0.44 2	0.53 9	$\begin{array}{c} 0.48 \\ 4 \end{array}$	0.79 9	0.80 6	0.81 9

As shown in Table 5, the square root of the AVE for the specified constructs is greater than their correlations with other constructs, meaning that the correlation between a construct and its indicators is higher than its correlation with other constructs. Therefore, the discriminant validity of the latent constructs in the research model is confirmed.

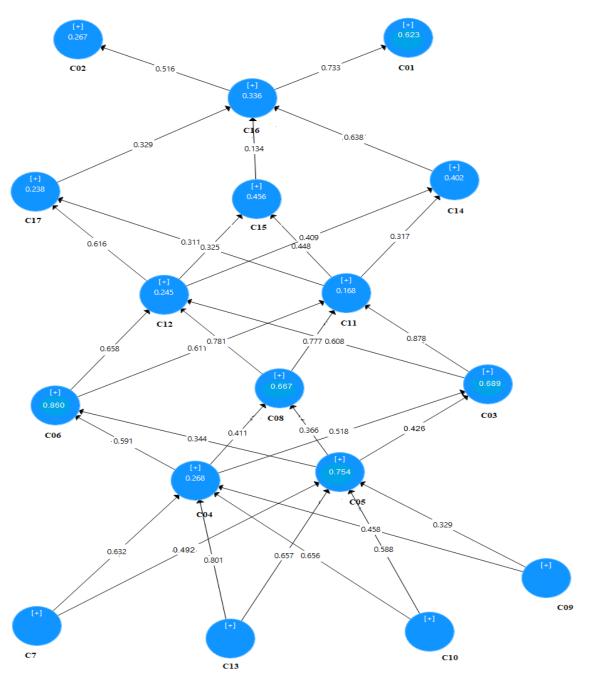


Figure 2. Analysis of the model with significance coefficients

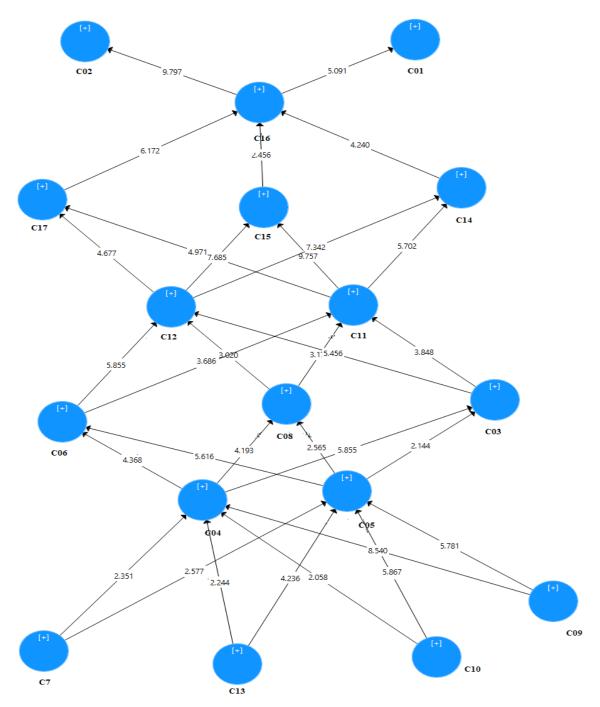


Figure 3. Analysis of the model with t-statistics

Table 6 shows the results of assessing the factor loadings of the dimensions and components related to the variable.

		1 5	L	
	Factor Loading	T-Statistic	Test Result	
C7	C4	0.632	2.351	
	C5	0.402	2.577	
C13	C4	0.801	2.244	
	C5	0.657	4.236	
C10	C4	0.656	2.058	

Table 6. Results of Partial Least Squares Analysis of Model Components

	C5	0.588	5.867	
C9	C4	0.458	8.540	
	C5	0.329	5.781	
C4	C6	0.591	4.360	
	C8	0.411	4.193	
	C3	0.518	5.855	
C5	C6	0.344	5.616	
	C8	0.366	2.656	
	C3	0.426	2.144	
C6	C11	0.611	3.686	
	C12	0.658	5.855	
C8	C11	0.777	3.152	
	C12	0.781	3.020	
C3	C11	0.878	3.848	
	C12	0.608	5.456	
C11	C17	0.311	4.971	
	C15	0.448	9.757	
	C14	0.317	5.702	
C12	C17	0.616	4.677	
	C15	0.325	7.685	
	C14	0.409	7.342	
C17	C16	0.329	6.172	
C15	C16	0.334	2.546	
	C14	0.638	4.240	
C6	C1	0.733	9.707	
	C2	0.516	5.091	

According to the output of the PLS software and the significance levels for confirmatory factor analysis of the indicators and components of the marketing and sales model in industrial markets (with a focus on the asphalt industry) presented in Table 6, all the factors had appropriate factor loadings, and their relationship with the latent variable was confirmed (the significance level for all questions is less than 0.05). Additionally, the model fit was assessed using t-values, which should be greater than 1.96 to confirm their statistical significance at the 95% confidence level. As indicated in Table 6, all the t-statistics exceed 1.96, confirming the statistical significance of all questions and the relationships between the variables at the 95% confidence level.

#### 4. Discussion and Conclusion

The objective of this research was to develop a structural model for marketing and sales strategies in industrial markets, with a specific focus on the asphalt industry. The seven-level model was constructed based on the technique of interpretive structural data analysis. Seventeen categories were classified according to these concepts. These categories include optimal marketing performance, increased profitability, economic conditions, laws and regulations, political conditions, technology, product innovation, market conditions, product quality, pricing, financial strategies, brand management, production capabilities, increased customer satisfaction, market differentiation, increased market share, and improved product quality. The qualitative questionnaire was designed based on these categories. In the structural model for marketing and sales in industrial markets, product quality, pricing, pricing, production capabilities, and product innovation had the highest impact.

In this structural model, product quality is recognized as a fundamental influencing factor. This is due to the high sensitivity of industrial customers to the performance and reliability of products. Higher-quality products

have a lower risk of defects or failures, which is particularly important in sectors where precision and durability are essential. Product quality can increase customer trust in a company's brand and products, leading to customer loyalty and repeat purchases. Pricing also plays a crucial role in industrial markets. In these markets, customers typically seek the best balance between cost and quality. Therefore, strategic pricing must not only be competitive but also reflect the value the product provides. Setting appropriate prices based on production costs, customer needs, and competitive market conditions can directly impact demand and market share. Product innovation and production capabilities are complementary factors that determine a company's ability to offer new and enhanced products. Innovation enables companies to predict and meet the changing needs of the market and customers, offering unique products and services that create market differentiation and competitive advantage. On the other hand, production capabilities refer to a company's capacity to produce high-quality products on time and at efficient costs, allowing it to meet customer demands and strengthen its competitive position.

Political conditions and laws and regulations are positioned at the second level of influence in the model. In the asphalt industry's marketing and sales model, political conditions and laws and regulations are identified as influential factors at this level. This industry is significantly affected by government policies, sanctions, and international political fluctuations. Changes in trade policies, taxes, or export and import restrictions can directly impact prices, market access, and raw material procurement.

Moreover, both domestic and international regulations play a pivotal role in determining the standards for production and distribution in the asphalt industry. Environmental laws, quality and safety standards, and transportation requirements can increase production and distribution costs and affect companies' ability to export to various markets. Strict compliance with these regulations is essential for companies in this industry to avoid legal penalties or trade restrictions. Changes in political conditions and regulations can lead to market volatility. Companies active in the asphalt industry must have strategic planning and flexibility to adapt quickly to these changes and remain competitive in the market.

Optimal marketing performance and increased profitability are the most influential factors. In the asphalt industry's marketing and sales model, optimal marketing performance is recognized as the factor with the highest impact on company success. Optimal marketing performance refers to the effective use of marketing resources to achieve sales goals and attract new customers. This performance includes strategies for advertising, branding, customer relationship management, and market analysis. By employing smart methods in this area, companies can better understand and respond to customer needs, thereby increasing market share and strengthening their competitive position.

Alongside marketing performance, increased profitability is a key factor in the marketing and sales model for the asphalt industry. Higher profitability can be achieved by optimizing production processes, managing costs effectively, and capitalizing on market opportunities. By improving marketing performance, companies can offer more strategic pricing, which not only attracts customers but also increases profitability. The use of new technologies and digital strategies can also enhance marketing efforts and ultimately contribute to profit growth. The combination of optimal marketing performance and high profitability leads not only to the growth and development of companies in competitive markets but also enables them to leverage political, economic, and regulatory changes. This model suggests that to achieve success in the asphalt industry, companies must continuously focus on improving marketing performance and achieving sustainable profitability, which ultimately enhances their market position and increases customer satisfaction. For improving and identifying the marketing and sales model in industrial markets with a focus on the asphalt industry, the following practical recommendations could be useful:

- Industrial markets typically comprise different sectors with varying needs and expectations. Therefore, companies should properly segment the market and target specific segments based on criteria such as project size, the type of asphalt use (road construction, construction industries, export), and geographical location. This approach can help focus marketing resources on more profitable segments.
- One effective strategy in industrial markets is to establish long-term relationships with key customers. Asphalt companies can gain customer loyalty and ensure sustainable sales by offering long-term contracts and providing discounts or additional benefits for major customers.
- To improve productivity and reduce costs, companies should optimize their logistics and supply chain systems. The use of modern technologies such as the Internet of Things (IoT) and blockchain can increase transparency and accuracy in supply chain management, reducing delivery times and enhancing customer satisfaction and competitiveness.
- Given the global demand for asphalt products, export development can help increase company profitability. Companies should invest in new markets such as the Middle East, Africa, and Asia, utilizing government support programs to facilitate exports.
- Companies should focus on improving production processes and innovating in asphalt products. Producing products with enhanced features, such as polymer-modified asphalt and weather-resistant products, can provide companies with a competitive advantage and differentiate them from competitors.
- Providing educational and specialized content to customers through articles, webinars, and workshops can help increase customer trust and awareness of company products. This approach enables companies to position themselves as a reliable authority in the asphalt industry and strengthen their relationships with customers.

In conclusion, designing a marketing and sales model for industrial markets, particularly in the asphalt industry, requires a comprehensive and multidimensional approach. This model should accurately consider factors such as product quality, competitive pricing, production capabilities, and innovation at higher levels, as well as the impact of political conditions and regulations at the second level. Furthermore, optimizing marketing performance and increasing profitability as primary objectives can only be achieved when companies conduct thorough market analysis, innovate products, and leverage modern technologies to improve supply chains and develop exports. Ultimately, this approach can help companies in the asphalt industry increase their competitiveness, enhance customer satisfaction, and succeed sustainably in both domestic and international markets.

#### **Authors' Contributions**

Authors equally contributed to this article.

#### **Ethical Considerations**

All procedures performed in this study were under the ethical standards.

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## **Conflict of Interest**

The authors report no conflict of interest.

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#### References

- [1] A. S. Krishen, Y. K. Dwivendi, N. Bindu, and K. S. Kumar, "A broad overview of interactive digital marketing: a bibliometric network analysis," *Journal of Business Research*, vol. 131, pp. 183-195, 2021, doi: 10.1016/j.jbusres.2021.03.061.
- [2] K. Burka and B. Kelly, "Martech intelligence report: B2B marketing automation platforms: A marketer's guide, 6th edition," 2018.
- [3] A. Jahed, E. Abedi, and H. Saeednia, "Explanation and validation of the coordination model of the marketing and sales department in the insurance industry in Iran," *Journal of value creating in Business Management*, vol. 4, no. 1, pp. 123-141, 2024, doi: 10.22034/jvcbm.2024.414360.1171.
- [4] H. Karimi Shirazi and Y. Vakil Alroaia, "Identification of the challenges of using the technology of 4.0 industry in the circular supply chain of sustainable agriculture," *Journal of Public Service Marketing*, vol. 2, no. 5, pp. 19-35, 2024. [Online]. Available: https://www.noormags.ir/view/fa/keyword/%D8%B2%D9%86%D8%AC%DB%8C%D8%B1%D9%87\_%D8%AA%D8%A7 %D9%85%DB%8C%D9%86\_%DA%A9%D8%B4%D8%A7%D9%88%D8%B1%D8%B2%DB%8C.
- [5] L. M. De Luca, D. Herhausen, G. Troilo, and A. Rossi, "How and when do big data investments pay off? The role of marketing affordances and service innovation," *Journal of the Academy of Marketing Science*, 2020, doi: 10.1037/t87909-000.
- [6] W. Rand and C. Stummer, "Agent-based modeling of new product market diffusion: an overview of strengths and criticisms," *Annals of Operations Research*, vol. 305, pp. 425-447, 2022, doi: 10.1007/s10479-021-03944-1.
- [7] A. Fürst, M. Gabrielsson, and P. Gabrielsson, "The role of marketing in new ventures: How marketing activities should be organized in firms' infancy," *Journal of the Academy of Marketing Science*, vol. 51, pp. 966-989, 2023.
- [8] N. Bendapudi and R. P. Leone, "Managing business-to-business customer relationships following key contact employee turnover in a vendor firm," *Journal of Marketing*, vol. 66, no. 2, pp. 83-101, 2002, doi: 10.1509/jmkg.66.2.83.18476.
- [9] J. P. Graesch, S. Hansel-Borner, and J. Hensler, "Information technology and marketing: an important partnership for decades," *Industrial Management & Data Systems*, vol. 121, no. 1, pp. 123-157, 2021, doi: 10.1108/IMDS-08-2020-0510.
- [10] Rajagopal, Industrial Marketing Generations Transgenerational Marketing. Palgrave Macmillan, Cham, 2020.
- [11] O. Heydari, V. Nasahi Far, and M. Feyz Arefi, "Industrial Marketing Strategy: Designing a Conceptual Model for Marketing Management in Organizations with Complex Products and Advanced Technology," in *First International Conference on Industrial Marketing Management*, Tehran, 2021.
- [12] M. Bock, M. Wiener, and C. Saunders, "Non-ownership business models in the manufacturing industry: Uncertaintyexploiting versus uncertainty-mitigating designs and the role of context factors," *Electron Markets*, vol. 33, no. 16, 2023, doi: 10.1007/s12525-023-00630-x.
- [13] T. Mahlamäki, K. Storbacka, S. Pylkkönen, and M. Ojala, "Adoption of digital sales force automation tools in supply chain: Customers' acceptance of sales configurators," *Industrial Marketing Management*, vol. 91, pp. 162-173, 2020, doi: 10.1016/j.indmarman.2020.08.024.
- [14] L. Ma and B. Sun, "Machine learning and AI in marketing-Connecting computing power to human insights," *International Journal of Research in Marketing*, vol. 37, no. 3, pp. 481-504, 2020, doi: 10.1016/j.ijresmar.2020.04.005.
- [15] S. Lacoste, "From selling to managing strategic customers-a competency analysis," Journal of Personal Selling and Sales Management, vol. 38, no. 1, pp. 92-122, 2018, doi: 10.1080/08853134.2018.1426991.
- [16] C. Flavián, S. Ibáñez-Sánchez, and C. Orús, "The impact of virtual, augmented and mixed reality technologies on the customer experience," *Journal of Business Research*, vol. 100, pp. 547-560, 2019, doi: 10.1016/j.jbusres.2018.10.050.
- [17] J. Järvinen, "The use of digital analytics for measuring and optimizing digital marketing performance," Academic dissertation, Jyväskylä Studies in Business and Economics, Jyväskylä, 2016.
- [18] C. Ancillai, L. Marinelli, and F. Pascucci, *Digital-driven business model innovation: the role of data in changing companies' value logic Digitalization and firm performance.* Palgrave Macmillan, 2022.
- [19] J. Mero, A. Tarkiainen, and J. Tobon, "Effectual and causal reasoning in the adoption of marketing automation," *Industrial Marketing Management*, vol. 86, pp. 212-222, 2020, doi: 10.1016/j.indmarman.2019.12.008.

- [20] H. Ghorbani Dinani and M. Mohammadi Hasanlouei, "The Impact of Using Social Media in Industrial Marketing on Competitive Advantage and Adaptive Selling," in *First International Conference on New Challenges and Solutions in Industrial Engineering, Management, and Accounting*, Sari, 2020.
- [21] B. Sezen and D. Hanssens, "Financial returns to corporate brand extensions: does typicality matter?," *Journal of Marketing Analytics*, 2023, doi: 10.1057/s41270-023-00220-y.