

# Investigating The Effect of Market Intelligence Activity on The Sales Strategy and Export Performance of The Study: Companies Exporting Petrochemical Products in Shiraz

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## ABSTRACT

The purpose of this study is the interaction between market intelligence activities and sales strategy on export performance. The current research is of an applied type and because it investigated and analyzed the current situation, the method used in this research is a descriptive survey. According to the statistical population of the research, 57 companies export petrochemical products according to the information of the Petrochemical Products Exporters Union in Shiraz, the sample size is 170 managers and senior experts, a simple random sampling method was used and the question The letter was distributed among these people. Library and internet sources including books, articles and case studies were used to collect data related to theoretical foundations and extract primary factors and indicators. In inferential statistics, after checking the reliability and validity of the questionnaire, the normality of the data was checked using Kolmogorov Smirnov, and then the assumptions were checked using structural equation modelling test and lisrel software. Based on the obtained results, all hypotheses were accepted. The results of the structural equation model showed that the dissemination of export market information on the performance of the export market, considering the mediating role of prioritizing and targeting the export customer, has the greatest impact with a value of 74%.

## **1. Introduction**

Considering that salespeople must increase their efforts to achieve the performance goals set by senior management, paying attention to the sales strategy is an important factor because success in this matter is achieved through implementing a well-designed sales strategy. comes (Terhu et al., 2021). The sales strategy guides the customer engagement process and determines the required salespeople and the appropriate sales management processes, activities, and technologies. Another basic suggestion for improving performance is to pay attention to the "information" aspect of market orientation because it is an important factor in the internal process that leads to the development of an effective strategy for export sales (Oztran, 2020). This study deals with the production of export market information and export information dissemination activities, which provide useful insights into customers, competitors and other environmental forces in each foreign target market, these activities provide the knowledge base for developing strategic decisions at the customer level. It provides an export, which is used in the effective strategy to sell the company's exports. Export information activities - the generation and dissemination of information - are an important antecedent of export sales strategy, as they are expected to facilitate certain sales strategy tasks, such as the effective segmentation of foreign customers, and the identification and targeting of the most profitable ones. In none of these studies, export sales management has emerged as a major research topic. Traditional marketing literature suggests that companies create a marketing mix to meet the needs and preferences of broad customer segments that result from a careful process of market segmentation and targeting (Kotler et al., 2016).

Today, the main concern of researchers and practitioners of international marketing is the determinants of export performance. With the development of this field, export marketing strategy has emerged as an important factor in export performance (Chen et al., 2016). The lack of access to information in a company may limit the effectiveness of strategic decision-making and the development of new courses of action (Hermankello et al., 2020). Both information activities help companies effectively respond to the current and future needs of customers and adapt faster to foreign market trends (Aztoran, 2020).

Exporting is a mode of entering a foreign market, especially among small and medium enterprises. The success of small and medium exporters depends on their ability to establish and maintain long-term relationships with foreign customers. Determinants of export performance are the main subject of concern among international marketing researchers and researchers (Leonido et al., 2002: 2018). An export marketing strategy provides a tool for exploiting the strengths and dealing with the weaknesses in the internal environment, as well as discovering opportunities and successfully dealing with the risks that are created in the external environment, to meet export-related goals. Cowsgill and Zo, 2018: 202

Export performance is very important for decision-making in the international field. Identifying market segments and their components depends on the components (variables and criteria) and methods used to identify them. It is very important to choose the appropriate segmentation components and their identification methods about the number and type of segments that are identified in the segmentation research, as well as their usefulness for the company. The choice of the basis of segmentation follows the purpose of the study and the type of market, consumer or industrial, and the choice of different components may lead to different segments. In addition, the selection of methods and components are not independent of each other, and segmentation methods need to be based on the specific objectives of the study and segmentation and selected segmentation components (Zou, 2020, 17).

The use of export market information includes the dissemination of information at all levels of the company. The collection of information is done by a specialized department in the company or by a foreign market research company. The application of export market information related to customers and competitors in the company enables the development of a platform between employees and senior managers. This in turn increases the creation of greater intelligence through

the sharing of collaborative experience across business units and individuals. In addition, quick and free access to export market information leads to improved strategic insight. On the other hand, the amount of access to information in a company can limit the effectiveness of strategic decision-making and the development of new courses of action (Katsika et al., 2020: 2081).

According to the said contents, the main question of the research is: To investigate the effect of the market intelligence activity on the sales strategy and export performance of the studied: companies exporting petrochemical products in Shiraz, to what extent?

## **Theoretical foundations of research**

### **Export sales strategy**

Sales strategy is concerned with how the firm achieves its marketing goals by allocating sales resources at the individual customer level. Despite the great importance of sales performance for the success of business organizations, previous research has devoted limited attention to conceptually defining and measuring this construct or identifying the main antecedents and outcomes of sales performance. Strategy effectiveness (Terho et al., 2021). In contrast, numerous studies have focused on factors influencing the work outcomes and performance of individual salespeople. The lack of attention to sales strategy is quite surprising given that salespeople must direct their efforts toward achieving performance goals set by top management through the implementation of a well-designed sales strategy. The sales strategy drives the process of customer interaction and defines the types of salespeople needed as well as the appropriate sales and management processes, activities and technologies. The field of export marketing management has largely ignored the role of the sales function. Empirical evidence shows that small and medium-sized exporters usually promote their sales by employing travelling salesmen. These individuals are based in the exporting country of the exporting company and travel abroad to meet foreign customers and perform personal selling activities (Katsika et al., 2017).

### **Export market information activities and export sales strategy**

Previous studies in the field of export marketing have examined the role of market orientation as a potential determinant of competitive advantage and superior performance in export markets (Bosso, 2018 Hay, 2018). Export market orientation is defined as production, distribution and response to export market intelligence. Most researchers expect export market orientation to have a positive effect on export performance because it fosters a thorough knowledge and understanding of the current and future needs and preferences of foreign customers, as well as a systematic and effective response to such characteristics (Cadogan et al., 2002). However, although there is a consensus among researchers about the main role of market orientation in marketing and its potential positive contribution to the achievement of marketing goals, there is debate in the literature about the exact process of market orientation's impact on performance. (Murray et al., 2022.)

### **Performance**

Performance is a multi-dimensional structure that includes effectiveness (in the sense of how far it has achieved organizational goals and objectives) in terms of the company's products and programs in front of competitors, and indicators such as growth and sales can show effectiveness. Efficiency (which is the ratio of performance results provided to the input required to achieve them) and profitability are the main indicators that show this dimension as adaptability (the ability of the organization to respond to environmental changes). Business performance consists of three parts: market performance, customer performance, and financial performance. In market performance, sales volume, sales growth, and market share are emphasized, in customer performance, customer loyalty and satisfaction are emphasized, and in financial performance, profit and profit margin are emphasized (Ratin, 2018, 16).

## **Background Research**

Kordi (1400) in investigating the effect of marketing intelligence on performance improvement

(case study: private banks in Ilam city), the results of this research showed that both dimensions of marketing intelligence (effectiveness and usefulness of marketing and support of technology and communication) have a positive effect on organizational performance and have meaning

Kasraei (2018) in presenting the relationship model between sales strategies and export performance showed that sales strategies and four components (customer segmentation, customer prioritization and targeting, communication goals and sales models, use of multiple sales channels) have a significant correlation and They are positive with export performance. The results of the regression analysis showed that the customer prioritization and targeting strategy explains purely 7% of the variance of the export performance of the export companies studied in the equation.

Guarda (2019) in the study titled market intelligence as a competitive advantage of the company states that the progress in information and communication technologies provides more alternative ways to access information and storage data as well as more access to different devices. It provides the transformation of the Internet of Things into a gigantic digital ecosystem and causes transformation in business models in the field of marketing as well. Market intelligence will have a major impact on the economy, facilitating and creating opportunities for new business models. This article covers a wide range of techniques, tools and patterns that deal with market intelligence and how the benefits of these can help to be more effective in marketing campaigns and maintain or gain a competitive advantage.

Direction (2019) in the study titled "Increasing performance in international markets: why market intelligence and sales strategy are very important" states that obtaining key information about targeted foreign markets and subsequently disseminating this information in different functions to the organization allows to create an effective strategy for export sales and as a result increases the export performance. By using the knowledge gained to address the three dimensions of ESS, the effectiveness of strategic decision-making can be increased.

Katsika (2019) states in the interaction between market information activities and sales strategy as drivers of performance in foreign markets, the findings indicate that the activities of dissemination and dissemination of information in the export market are proportional to the development of effective strategies for export sales. It supports and facilitates foreign foreign accounts by servicing them. This study conceptualizes and operationalizes export sales strategy and provides an empirical evaluation of a comprehensive model that includes key antecedents and outcomes of export sales strategy performance.

Navarro (2018) in the effect of market intelligence on perceived psychological distance, strategic behaviours and export performance in small and medium industrial companies shows that: strategic decisions to adopt marketing mix elements to adapt to foreign markets, have a positive effect on performance exports; Strategic adaptations increase when export managers perceive greater psychological distance; The export sector contributes to the development of market intelligence and positively moderates the effect of strategic adaptation on export performance, and the size of the effect is not significant in correlation studies.

### **Research Methodology**

The purpose of this research is applied research. Also, this research is descriptive and survey research from the point of view of data and information collection methods.

The statistical population of the present research is 57 companies that export petrochemical products according to the information of the Petrochemical Products Exporters Union in Shiraz, and the sample size is 170 managers and senior experts working in these 57 companies.

The sampling method in the present study is used as a simple random method available

Sampling method:

To determine the sample size, considering that the statistical population of the research is limited, Cochran's formula for determining the sample size was used for the limited population.

$$n = \frac{\frac{z^2 \times p \times q}{d^2}}{1 + \frac{1}{N} \left( \frac{z^2 \times p \times q}{d^2} - 1 \right)} = \frac{\frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}}{1 + \frac{1}{170} \left( \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} - 1 \right)} = 118$$

To collect the data for this research, a researcher-made questionnaire tool is used using the research indicators of Katsika et al. (2020). Then, using the structural equation modelling test and Lisrel software, the hypotheses were investigated.

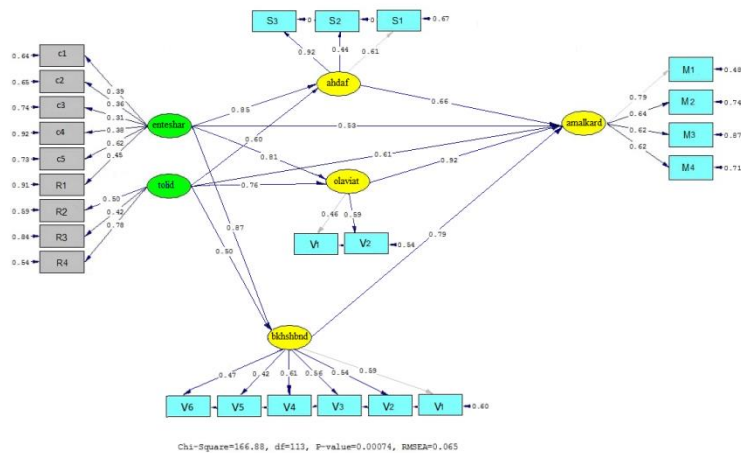
**Research findings**  
**Inferential statistics**

In this research, the level of education was (21.7%) of diploma and postgraduate students, (43.1%) of undergraduate students, (31.8%) of master’s students, and (3.4%) of doctoral students. have been. Also, in the current research, the average work experience of the participants in the research was 12.35±3.72 years. The people with the least experience and the most experience were 7 and 25 years old, respectively.

Research model using Lisrel structural equations

**1-Testing hypotheses using linear structured relationships**

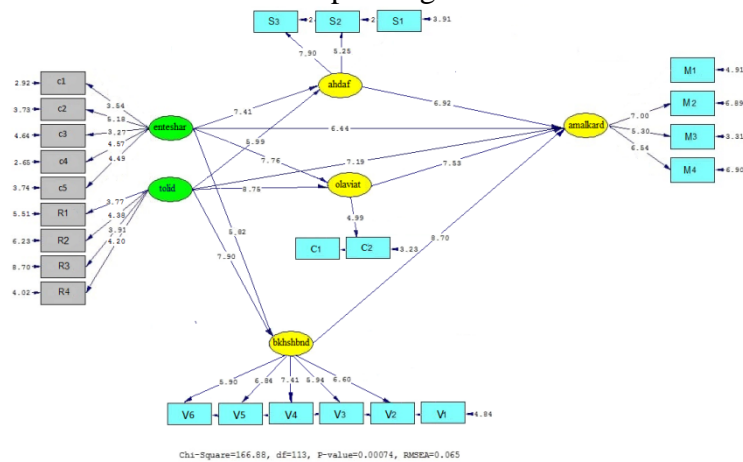
After determining the measurement models to evaluate the conceptual model of the research, as well as ascertaining the existence or non-existence of a causal relationship between the research variables and checking the fit of the observed data with the conceptual model of the research, the research hypotheses using the structural equation model are also tested. became The results of the hypothesis test are reflected in the graph.



**Figure 1- Measurement of the general model and the results of the hypotheses in the standard mode**

The above diagram shows the structural equation model of the research in the standard coefficient estimation mode. All the variables of this model are divided into two hidden and obvious categories. Obvious (rectangle) or observed variables are directly measured by the researcher, while implicit (ellipse) or unobserved variables are not directly measured, but are inferred based on relationships or correlations between the measured variables. The present variables represent a set of theoretical structures such as abstract concepts that are not directly observable and are created and observed through other observed variables. In turn, the variables are divided into two types endogenous variables or receiving variables and exogenous variables or transmitting variables. Each variable in the structural equation model system can be considered both an endogenous variable and an

exogenous variable. An endogenous variable is a variable that is affected by other variables in the model. On the other hand, an exogenous variable is a variable that does not receive any effect from other variables in the model but affects itself. In this chart, numbers or coefficients are divided into two categories. The first category is called measurement equations, which are the relationships between hidden variables (ellipses) and obvious variables (rectangles). These equations are called factor loads. The second category is structural equations, which are the relationships between hidden and latent variables and are used to test hypotheses. These coefficients are called path coefficients. Based on the factor loadings, the index with the highest factor load has a greater contribution to the measurement of the corresponding variable, and the index with smaller coefficients plays a smaller contribution to the measurement of the corresponding construct.



**Figure 2-Measurement of the general model and the results of the hypotheses in a significant state**

The above diagram shows the structural equation model of the research in the significance state of the coefficients (t-value). This model tests all measurement equations (factor loadings) and structural equations using t-statistics. According to this model, all path coefficients and factor loadings are significant at the 95% confidence level in the standard mode. If the value of the t statistic is outside the range of -1.96 to +1.96, the model is significant, indicating that all factor loadings are significant at the 95% confidence level. The calculated values of t for each of the factor loadings of each indicator with its construct or hidden variable are above 1.96. Therefore, it is possible to show the alignment of questionnaire questions to measure concepts as valid at this stage. The results of the above table show that what the researcher intended to measure through the questionnaire questions has been achieved by this tool. Therefore, the relationships between constructs or hidden variables can be cited. To show to what extent these obtained values correspond with the realities in the model, the fit indices should be studied.

**Interpretation of the model**

**Table 1- Interpretation of the structural equation model**

Limit	Estimates of the original model	index name
3 less than	1.47	(Chi-square on the degree of freedom)
0/9 Above	0.93	GFI (goodness of fit)
0/09 less than	0.065	RMSEA (root mean square error of estimation)
0/9 Above	0.96	RMSEA (root mean square error of estimation)
0/9 Above	0.91	NFI (softened fit)
0/9 Above	0.93	NNFI (Unsmoothed Fit)
0/9 Above	0.95	IFI (incremental fit)

In general, in working with the Lisrel program, each of the indicators obtained for the model alone is not the reason for the fit of the certainty model, and in some sources, the value below 3 is acceptable for the ratio of the chi-square statistic to its degree of freedom, which is acceptable in the model of this research. This value is calculated as 1.47. The GFI criterion indicates a measure of the relative amount of variances and covariances that are explained by the model. This criterion is a variable between zero and one, the closer it is to one, the better the fit of the model with the observed data. The reported GFI value for the model is 0.93. The second root mean square of the residuals means the difference between the elements of the matrix observed in the sample group and the elements of the estimated or predicted matrices assuming the correctness of the desired model. To check how well a model performs in terms of explaining a set of observed data, especially in comparison with other possible models, the values of Softened Fit Index (NFI), Non-softened Fit Index (NNFI), Incremental Fit Index (IFI) and comparative fit index (CFI) has been used. The values above 0.9 of these indices indicate a very suitable fit of the designed model in comparison with other possible models. Finally, to check how the desired model combines efficiency and economy, the very powerful index of the second root of the estimation of the variance of the approximation error, RMSEA, has been used. The RMSEA index is the root mean square of the approximation. In this research, (0.065) has been estimated for the research model. As the fit characteristics in the above model and table show, the data of this research has a good fit with the factor structure and the theoretical foundation of the research, and this indicates that the questions are aligned with the theoretical structures. The results showed that the results of all hypotheses were accepted and the greatest effect was related to the effect of publishing export market information on the performance of the export market considering the mediating role of prioritizing and targeting the export customer at the rate of 0.74 and the effect of producing export market information on the performance of the export market considering Having the mediating role of prioritizing and targeting the export customer is 0.69.

## **Conclusion**

Based on the results obtained using structural equations, only a few assumptions were accepted, which are the following results:

The production of export market information affects the performance of the export market.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

The release of export market information affects the performance of the export market.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

The production of export market information has an effect on the performance of the export market considering the role of intermediaries in the segmentation of export customers.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

The production of export market information affects the performance of the export market, considering the role of a mediator in prioritizing and targeting the export customer.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), and greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted

with 95% confidence.

The production of export market information has an effect on the performance of the export market considering the mediating role of export relationship goals and sales model.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), and greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

Dissemination of export market information has an effect on the performance of the export market considering the mediating role of export customer segmentation.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), and greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

Dissemination of export market information has an effect on the performance of the export market considering the mediating role of prioritizing and targeting the export customer.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

Dissemination of export market information has an effect on export market performance considering the mediating role of export relationship goals and sales model.

This hypothesis has a t value for this parameter (according to the five per cent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter), and greater than 1.96 was calculated. Therefore, it can be stated that the above hypothesis is accepted with 95% confidence.

According to the study conducted and the results obtained, the following suggestions are presented: It is suggested to the managers of companies exporting agricultural products to help improve their export performance by using various sales methods in foreign markets.

Apply as much intelligence and information collected from the export target market as possible to improve export performance.

In formulating the company's strategies, consider the information needed for creating and applying export market intelligence.

Exporting companies try to create different sales models in segmented markets and increase their sales volume.

Conducting research in a larger statistical community to ensure the accuracy of the research results.

Conducting and implementing research in different industries and companies to create a better and more appropriate knowledge and understanding of the relationships between these variables.

Conducting qualitative research to identify new dimensions of the creation and application of export market intelligence.



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