

Causal Influence Analysis Model of Foreign Environment on Export Capability

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Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 20 April 2021

Abstract: The objectives of this research aim 1) To research the elements of the environment in foreign countries that affect the export capability and 2) To analyze the causal influence between the elements of the foreign environment on the export capability. The researcher collected samples from a specific target group of 145 companies. Data were analyzed by using descriptive statistics. Moreover, the researcher also analyzed information by descriptive statistics. In the part of analytical statistics analyzed, researcher using factors analysis and the causal influence analysis between variables according to the conceptual framework by structural equation modeling. The results revealed that foreign situation had influence on export capability. On the contrary, the analysis showed that had positive influence on the capability of exporting as same as the export regulation and the Muslim consumption had positive influence on the capability of exporting. Assessment on goodness of fit from the model found that export capability was consistent with the empirical data, chi-square = 133.60, the degrees of freedom = 114, chi-square relative (χ^2/df) = 1.17, the probability (P-value) = 0.101, goodness of fit index (GFI) = 0.91, comparative fit index (CFI) = 0.95, Root mean square error of approximation (RMSEA) = 0.035.

Keywords: Foreign Situation, Export Regulation and the Muslim Consumption, Export Capability

1. Introduction

Economic diversion affects all sectors, especially exports in which planning and careful research are required; for example, the unrest in many European countries affects the sluggishness of tourists, or even the stagnation of the gross income of each country; therefore, the exports have been reduced. After all, the civil war in many Middle East countries has been attributed to goods that are not exported abroad or in small quantities. According to the [1] and the [4] has found that the world economy has been shrinking; as a result, the export business situation of Thailand has decreased, especially for agricultural, industrial and food industries. While the food industry was down at 1.6 percent from the previous year. In addition, the Office and Trade Strategy of the [5] has predicted that Thai exports will decline again at 4.0%, which will affect exports in many markets. In particular, the exports to ASEAN-5 CLMV and South Asian markets are likely to shrink at a high level in collaboration with the Office of Industrial Economics, the [5] has predicted that the situation of exports of industrial products in 2020 (excluding gold, weapons, tanks and combat aircraft) are likely to shrink by 14.11 percent. Industrial products with a contraction in exports will be automobile components and accessories, gems and jewelry (gold), plasmas, air-conditioner. Regarding the exports for industrial products are likely to continue to expand especially in the United States and China, while the exports to ASEAN, EU, and Japan markets are likely to shrink. In the meantime, agricultural industries valued at \$ 1,483,389 million are likely to contract at 5.34 percent. As for the export marketing, the most important industrial products are electronics. The export value will be 2964.8 million US dollars with a contraction of 0.4 percent. The export value will be 1,857.6 million US dollars, shrinking 6.9 percent. Plastic resins with the export value at 612.7 million US dollars are likely to shrink at 24.0 percent. Equipment and components will be with the export value of US \$ 2,213.6 million. Textiles and garments with the export value at 459.3 million US dollars are likely to contract 22.7. Gems and jewelry. (excluding gold bars) with the export value of US \$ 351.9 million are likely to contract at 39.9 percent. In addition, from the circumstances of the occurrence of Covid-19, Thailand is likely to have an export direction with \$ 19621 million, down 3.86% compared to the same period of 2020, while imports were \$ 17,391 million, a decrease of 9.08%, a trade surplus of \$ 2,230 million. Thai shipping in Thailand (SOR) had expected that exports in 2020 were likely to be less negative and might come back positive, but some goods, such as food, there would still be obstacles because the exhibition could not be held and unable to travel between countries as usual. In addition, the [4] reported that Thailand's exports were less negative, which was a continuing recovery for exports due to the recovery of many exports that were less negative, including many products, starting to expand. The three main groups of products exported were food products such as cassava products, palm oil, frozen fresh pigs, beverages, food seasonings and pet food, including products related to work from home and electrical appliances such as computers and furniture and refrigerator parts and freezers as well as washing machines and solar cells, and products related to infection prevention and epidemic reduction, such as rubber gloves. Meanwhile, many products continued to decline, such as sugar, rice, rubber, fresh chicken, frozen and processed gems; and Jewelry - excluding gold, radio receiver, television and its components, automobile, and components and products related to oil and gold. Many products

continue to be exported, such as sugar, rice, rubber, frozen chicken and gemstone processing and jewelry excluding gold. Tv radio receivers and components Automobiles, equipment and components, oil and gold related product

On the demand for products in this group, It was found that although countries around the world experienced economic problems, however, their dietary requirements did not decrease partly due to the bird flu crisis, consumers turn to eat more food as well as the way of life of people today which is in a hurry, they cannot cook by themselves Choosing to consume products that are processed or cooked becomes more and more.

When considering the situation of the overseas market, it was found that it had influenced the planning of exporting to foreign markets. For example, the economic instability affected the export sector significantly owing to the political instability which would result in declining exports or being unable to carry out exports. In addition, it was found that the economic situation in the country in which the export operation was instable would affect the export less to that country and at the same time that country was unable to export a much as expected due to domestic economic problems [19][20]. It can be said that exports have a positive effect on the exporting country. For example, a study by [15] found that Portugal had exported to other countries more than 60 percent of countries, which was the highest in Europe , bringing more than \$ 1 billion a year into the country or [19] found that exports also helped surplus payments to the country. it played an important role in building a standard of living and helped create jobs for the people of the country. For example, the employment of workers within Germany 1/3 was the employment in the export sector. It also found that exports in the United States helped create jobs. 22,000-23,000 positions per export for every \$ 1 billion.

For the exporters themselves, they also benefit from exports, causing the employment Increased product development and company growth. It also helps to expand the export base to more countries, maintain a stable financial status. The exporter, therefore, receives a wide variety of exporting countries, especially generating profits and confidence to the operator itself. Moreover, export companies also contribute to economies of scale, lower costs and production costs per unit, and increase profitability for the company in addition to providing a competitive advantage and increasing productivity. Besides, [14] found that the export supply chain had an acceptable relationship with cost-based export competitive advantage and advantages that the business unit, obtained from the use of available resources could only be sustained if its opponent were not be able to copy it.

In this research, the researcher was interested to study the food industry products because since the year 1991, they have generated more than 76,459 million baht per year in revenue, and also found that Thai canned seafood was exported to countries around the world as the number 1 since the year. 1999 [7][9]. Moreover, it was found that the food industry products were more valuable than agricultural products, including other industrial products as well, and most of the raw materials in the production could be sought within the country. Office of the [3] said that exports of agricultural products and food industry relied on the import of raw materials at a low rate. It could support Thailand's economic expansion more than any other product group, for example, an increase of 10.000 million baht in fishery exports would increase GDP 3, 854 million baht; meanwhile, the cars increased by 10 billion baht. The GDP would increase by only 2,256 million baht. For the trend of exports of food products, the food institute (2016) showed an increase of 5.8 percent compared to 2015 due to the weakening base currency, including lower production costs.

For example, exports of fishing products increased by 10 billion baht, resulting in an additional GDP of 3,854 million baht. The car segment increased by 10,000 million baht; GDP increased by only 2,256 million baht. [10] showed a 5.8 percent increase in growth, compared to 2015 due to the weakening major currencies as well as lower production costs.

Therefore, the researchers aim that this research will be able to find answers to the food export business practices of the food industry effectively as well as pointing out environmental factors in the international market. It is important to focus on export planning including new recommendations and findings that contribute to future export decisions.

2. Research Objectives

1. To research the elements of the environment in foreign countries that affect the export capability
2. To analyze the causal influence between the elements of the foreign environment on the export capability.

3. Research Methodology

Research Design

This research is a cross-sectional design with the following research methods:

1. Target population and sample groups.

The population studied in this research was the food industry executives in Bangkok Metropolitan Region based on the database of the Department of Export Promotion. It was found that the target population of the food industry was in the total of 1,415 by specifying the sample size from Yamane's calculation table at 95% reliability level, with the static error at 0.05, gaining 316 samples and then selecting specific samples from the group of entrepreneurs in the food industry.

Key Informants

The food industry executives in Bangkok Metropolitan Region based on the database of the Department of Export Promotion

Research Tool

The research instrument was a questionnaire developed from [19] [20]. In this research, the researcher defined the ten-point Rating Scale (Numeric Scale) as used by [9] studied in Romania and China etc. The scale was used because it had a higher resolution and the respondents could choose to answer that was more relevant to their actual opinions.

Data Analysis

Method for analysis of statistical data used for analysis (1) Descriptive statistics were descriptive analysis of various factors used in the analysis. It also described the general condition of the collected data and described the general properties of the studied population. The statistics used in quantitative measurements were the percentage value, maximum and minimum and (2) Analytical statistics with the exploratory factors analysis (EFA) was used to classify the variables or decrease the variables. After that, the survey elements were analyzed to confirm that the variables belonged to the actual theoretical study group as well as testing the relationship between the variables and the hypothesis according to the conceptual framework and the confirmation analysis (Confirmatory Factor Analysis (CFA) to confirm the accuracy of the variables from the exploratory element analysis. At the end, the researcher chose to use the LISREL program of causal influence analysis to aid the research. In addition, in assessing the harmony of conceptual frameworks, structural equations with the Structural equation modeling (SEM.) with the overall empirical data, [2] proposed that the SEM. had the potential to analyze conceptual frameworks, structural equation modeling (SEM). There were many important types including (1) Measurement model (2) Path analysis model (3) Full SEM. model etc. Therefore, according to a study by [27], the root means square error of approximation (RMSEA) was less than 0.05. If there were a value of 0.08-0.10, it would estimate that the conceptual framework would be appropriate, (2) the relative square value (χ^2/df) should be less than 5 (3) comparative fit Index (CFI) value should be 0.90 or more.

4. Research Results

The food industry group consisted of 41 locations for canned and processed seafood (28.2%), 27 locations for canned and processed fruit (18.6%) and 10 locations for canned and processed vegetables (6.9%), 14 locations for meat-based and processed industries (9.7%) and 8 locations for animal feeds (5.5%), 9 locations for semi-prepared foods / sauces (6.2%), cereal foods / beverages, 12 locations for rice industries (8.3%), 4 locations for sugar products (2.8%) and 4 locations for beverage industries (2.8%).

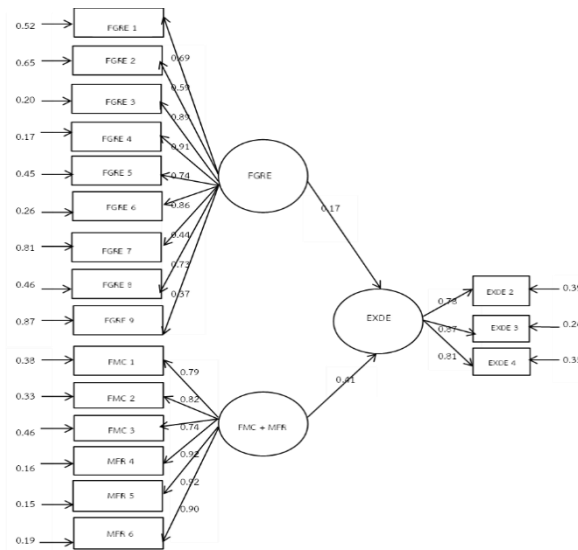
When considering the size of the factories according to [18], they were classified into three levels: small, medium and large, so the factories that were smaller, with less than 100 workers, were found in this study in a number of 50 locations (34.5%). The medium-sized factory employed between 101 and 499 people (31%) and from this study, 50 locations (34.5%) were large factories with 500 employees or more. In other words, a small factory and large sizes had the same number of factories.

In terms of personal characteristics, it was found that the study sample had the average age around 37.8 years old. The majority of people in the group graduated with bachelor's degree (57.2 percent), had traveled abroad on average 1-2 times per year (61.4 percent). It also found that up to 20 people who could speak other foreign language which were Japanese or Chinese except English (13.8%) and had the experience in the exports between 1-5 years were (21.4%).

The results of the exploratory factor analysis (EFA) of Foreign Markets Commission (FMC) consisted of 9 questions. It was found that with a minimum element weight of 0.641 and a maximum of 0.899, all with an element weight of more than 0.50 of all data variations could be explained around 67.920 percent.

Analysis of the survey elements of the Foreign Government-Related Entities (FGRE) and the Muslim Consumption Principles (MFR) found that the program incorporated the two variables into one component, measured by 6 questions. The lowest element weighted at 0.806 and the highest element weighted at 0.923. All questions had element weight greater than 0.50 and could explain the variation in the data at 77.036%.

After the survey component analysis was performed, a Confirmatory Factor Analysis (CFA) was performed. The results of the Confirmatory Factor Analysis of the Foreign Markets Commission (FMC) found that the 9 elementary measurement questions had more t-test scores or approached 2. The lowest t-test valued at 4.57 and the highest t-test valued at 13.88. The results of the verification for the harmony of the conceptual framework were $\chi^2=18.53$, $df = 20$, $P\text{-value} = 0.552$ and $RMSEA = 0.000$. It can be analyzed that the conceptual framework was very consistent.



Fit index: $\chi^2=133.60$, $df=114$, $\chi^2/df=1.17$, $P\text{-value}=0.101$, $NFI = 0.96$, $CFI = 0.95$, $GFI = 0.91$, $IFI = 0.99$, and $RMSEA=0.035$

Figure 1 Conceptual framework analysis model, structural equation

The results of construct reliability(ρ_c) analysis of the overseas market situation (FMC), foreign government regulations (FGRE) and Muslim consumption principles (MFR), export capacity (EXDE), were at 0.890, 0.940 and 0.673 respectively and the average variance extracted: (ρ_v) were at 0.990, 0.997, and 0.719, respectively.

5. Discussion

From the first objective of researching the foreign environmental elements affecting the export capability, it could be concluded that all elements have element weight greater than 0.50, described as the component weight of that variable. When studying survey elements, it was also found that the value of weight, the composition of the situation of the overseas market, and the government regulations abroad and the principle of consumption of all Muslims had an element weight more than 0.50, explaining that every question was an element of such a passive variable. When considering the composition of the situation of the overseas market, it was found that Question item 3, the size of the overseas market had an elemental weight at 0.91 in consistency with a study by [24] found that the size of the market was clearly correlated with its export capabilities. That was to say, companies in the United States took into account the size of the market and took it very seriously because it helped to anticipate further export planning in the future, as well as the profits to be earned. It also corresponded to a study by [26] found that marketing and foreign trade had an impact on the economy through both exports and imports. The exports were considered to support national income and economy, while the imports were generally considered the exit from the economy. In literature, it was generally argued that the exports had a direct positive and indirect impact on the economy while the imports had a direct impact on national income. In addition, the relationship between marketing for the exports - imports and economic growth was one of the most common among economists: the exports had a positive effect on economic growth [27]. In addition, it also provided market opportunities further. In terms of foreign government regulations and Muslim consumption principles, when considering the analysis of confirmation elements, it was found that question item 4, the rules for consumption according to Islamic principles, had the highest element weight of 0.92 in correspondencetothe studyof [6], proposing that the reliability in obtaining food certification affected food consumption according to Islamic principles including family and reference group which resulted in increasing religious consumption. Therefore, the entrepreneurs had to produce food according to the strict standards as well. Furthermore, in the 21st century there have been many efforts to create organizations. For example, the Muslim consumer group has used the H-MCG symbol for Halal certification which has given the Muslims evidence that ingredients and methods of production have been examined, tested and announced including being licensed by a

certification body. It also provided authentication and permission for companies to export their products to the Middle East and Southeast Asian countries. [17]

For the second objective to analyze the causal influence between the foreign environmental elements on the export capability. The results of the study concluded that the path of influence between the situation of the overseas markets to the export capacity was statistically significant ($\beta = 0.17$, t -test = 1.98), consistent with the [14] reported the results of a study in Greece that the situation of the overseas market had influenced export capability. If such an environment did not receive the attention from the exporter, it would create a barrier to export and bring an obstacle since the aforementioned factors were factors related to the economic, political and social conditions, etc. If there was an uncertain condition in a foreign country, it would cause the exports to the overseas market to slow down. It was also in line with [11].

6. Conclusion

Concluded that three elements of a particular external environment had Influences related to export activities, including real changes in production of products, technology with the product itself, businesses that compete in a high industry and marketing strategy and operations. Therefore, many companies needed to change their strategies to keep up with changing customer demands. Concentration was defined as expanding the path of influence between foreign government regulations and Muslim consumption principles significantly influencing export capacity ($\beta = 0.41$, $t = 4.26$) in line with [16] found that overseas government regulations and Muslim consumption principles, especially high or overspriced import tariffs could cause export problems, as a study in the Netherlands [27], 123 export companies in the United States [22] and Finland [21] found that overseas laws affected exports. Therefore, exporters had to pay attention to the rules for export, including the principle of Muslim consumption. Nowadays, it is considered one of the standards that exporters must adhere to in order to obtain certification and to pass the basic regulations, thus allowing exporters to operate their exports more smoothly.

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