A STUDY WAYS AND REMEDIES OF FROZEN SHRIMP INDUSTRIES OF THAILAND, THAILAND 4.0

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Abstract - The purposes of this study were to: 1) study ways problems related to basic factors in operating frozen shrimp industry based on the entrepreneurs' points, 2) the enterprises involved in this study were small and medium industry receiving Thai Frozen Foods Association, and 3) compare the problems of the frozen shrimp industry according to their sizes of operation in BKK and surrounding area. Population in this study consisted of 125 managers from 125 frozen shrimp enterprises Thai Frozen Foods Association which 69 were small size and 56 were medium size. The data were analyzed to find percentage, mean, standard deviation, and independent sample t-test with the significant hypothesis at .05.
The results found that the problems of the frozen shrimp industries of both size were in high level. The needs for government supporting were in high level. The comparison of the problems and the basic factors between SMEs size enterprises showed no statistically significant level at .05. The problems that they mentioned included marketing ,raw materials, labors, production, and the need for academic supporting from the government sector.

Keywords - A Study Ways, Remedies, Frozen Shrimp Industries, Surrounding Area,Thailand 4.0

I. INTRODUCTION

The first 6 months, Thailand's economic output fell by 2.90 % (122,971 million USD) and imports decreased by 2.41% (119,027 million USD), with a trade surplus of USD 3,943.2 million. And imports decreased by 2.41 % (119,027 million USD), with a trade surplus of USD 3,943.2 million. By the year 2019, exports of Thailand in May 2019 by -6.20% (USD 21,017.9 million) -2.15% in June 2019 (21,409 million USD). By deducting gold oil exports by -8.0 % in June 2019, economic output in June 2019 was -2.15 % (21,409 USD).Import -9.44 percent (18,197USD) concluded. The trade surplus of USD 3,212.2 million [1].

The frozen shrimp industry gets raw materials from both natural resource and shrimp farming for the processing of different types of frozen shrimp products of which 92.5 % are exporting products. Frozen shrimp product is one of high potential export of the country. With high potential in production and good quality of products together with the increasing demand of world market, Thai frozen shrimp production has increased at satisfaction level resulted in one of the highest agricultural incomes of the country[10]-[13]. At present, there has been high competition in world frozen food market together with the change of imported regulations on non-tariff barriers especially on the part of health and environment. In addition, the world economic recession caused the consumers to be more careful with their expenses resulted in less consuming of frozen shrimp products. As a consequence, there had been the deceleration of frozen shrimp export during 2018 and 2019[1],[9]-[11]. Thai frozen shrimp export decreased from 68.2 M. Baht in 2018 to 13.9 M. Baht in 2019, or the frozen shrimp production decreased from 259 tons to 78 tons. The decrease of export value of Thai frozen shrimp products affected the producers drastically[1],[11].

With the problems mentioned above, the researcher had an interest in investigating the problems and needs of SMEs frozen shrimp industry in BKK and surrounding area. The results of the study can suggest some guidelines in encouraging the production of Thai frozen shrimp to maintain its world market share and expand new export marketing.

II.METHODOLOGY

Method

A. Purpose of the research –

1) Study ways problems related to basic factors in operating frozen shrimp industry based on the entrepreneurs' points, 2) the enterprises involved in this study were small and medium industry receiving Thai Frozen Foods Association and 3) compare the problems of the frozen shrimp industry according to their sizes of operation in BKK and surrounding area.

B. The study variables-

1. Independent variables included the sizes of Thai frozen shrimp industry which are small size and medium size.2. Dependent variables included basic factors in operation consisting of raw materials, labors, production, marketing, and academic support from the government sector [6]-[8] , and [15].

C. Population/Sample-

Population in this study consisted of 125 managers from 125 frozen shrimp enterprises Thai Frozen

Foods Association which 69 were small size and 56 were medium size [2].

D. Data collection-

According to all number of population, the data could be collected 119 samples 95.2 % which was used as a of this study[2],[4].

E. Data analysis-

The data were analyzed by computer program after being checked for the completion. The data were transformed into coding for the analysis. The demographic information was in the form of checklist of which the data were analyzed to find frequency and percentage. The problem part was in the form of rating scales of which the data was analyzed to find arithmetic mean and S.D. based on the evaluation criteria by Best [3]. The comparison of the problems and the basic operating factors were analyzed to find the difference by T-test [2]. Other suggestions were in the form of open-ended which were analyzed by content analysis to find frequency and grouping [5].

III. RESULTS

The results on the demographic information of Thai frozen shrimp industry showed that most industries were small enterprises with the age of entrepreneurs between 40 and 50 years old. Most of them had master degree and have been operating the business for about 15-20 years. The products are sold locally and exported. They reported the trend of the Thai frozen shrimp industry to be expanding in the future. Most of them were the Thai Shrimp Farmer Association members. Most of the enterprises had their business capitals from bank loans. Half of the enterprises reported their operation time during the day while the other half conducted their operation both day and night shift then Table I.

Operation problems	**μ**	**σ**	**μ**	**σ**	**Level**
Marketing	3.60	0.51	3.56	0.48	High
Raw materials	3.57	0.57	3.60	0.60	High
Labors	3.56	0.52	3.54	0.52	High
Operation	3.55	0.54	3.54	0.55	High
Academic support from the Govt. sector	3.53	0.71	3.59	0.70	High
Total	**3.56**	**0.59**	**3.57**	**0.58**	**High**

Table I : Mean and S.D. of the operation problems in SMEs.

Table I that in general, they reported the operation problems at high level. When considering in details, it was found that 4 aspects, i.e. labors, production, marketing, and the need for academic supporting from the government sector were in high level while the only aspect- raw materials was in medium level.

The level problem of the frozen shrimp industry	**small size**		**medium size**		**t**	**p**
	μ	**σ**	**μ**	**σ**		
1. Raw materials	4.09	0.87	4.08	0.85	11.778	0.000*
2. Production management	4.07	0.85	4.09	0.78	10.654	0.000*
3.Policy and services of the government	4.04	0.90	4.06	0.71	9.231	0.000*
Total	**4.07**	**0.89**	**4.08**	**0.69**	**10.554**	**0.000***

*** A statistical level**. 05

Table II The level problem in the frozen shrimp industry as a whole, and the size of enterprises.

Table II The results revealed that the problems of the frozen shrimp industries of both sizes (small size and medium size) were in high level in TableII. The needs for government supporting were in high level. The comparison of the problems and the basic factors between the small and medium size enterprises showed no statistically significant level. However, the only one aspect with the different need was on academic supporting from the government sector.

They reported their needs on several aspects. The 1st aspect was on raw materials which was not enough for their production. In other words, they could not keep their stock according to the market demand [1],[7]-[14], and [16]-[18].

They also mentioned the insufficient labor problem and high labor turnover. On the production side, the main problem was on the management of industrial wastes. About marketing, there were problems on dealers and uncertain market environment. They needed more marketing opportunity and marketing channels [1],[13]-[14].

IV.DISCUSSION & CONCLUSION

Some suggestions from the open-ended included the support from the government on raw material supply and its quality. The raw material cost was rather high though it came directly from the shrimp farmers. Moreover, the labor cost was higher due to the former government policy on the minimum labor cost at 400-425 baht/day in BKK and 19,500 -20,000 baht minimum salary for the graduate. There was also price cutting among the frozen shrimp enterprises. They required better support from the government on cheaper bank loan, infrastructure, and counseling services in increasing product quality. For continuing long term planning, they needed the measurement on the control of factory number. The authority should issue quality certification to the enterprises faster than nowadays [9]-[14].

In conclusion, the needs for government supporting were in high level. The comparison of the problems and the basic factors between the SMEs showed no statistically significant level [6], [8].

DISCUSSION

A. Marketing

The finding in this part was congruent with the report on The Journal of the industry [17] showing the need of more professionals in marketing.

B. Raw materials

The findings in this part was congruent with the report in the Industrial Economic Journal [1] ,[10] showing that the raw materials were not enough for the production system.

C. Labors

The findings in this part was congruent with the study by The Office of shrimp Economics [12] revealing that the higher labor cost, i.e. the minimum labor cost at 400-425 baht/day and 19,500-20,000 baht minimum salary for the graduate resulted in higher production cost.

D. Production

The findings in this part was congruent with the study by Apisek [5] mentioning about the price cutting among the enterprises resulted in lower margin.

E. The support from the government sector

The findings in this part was congruent with the report on the Trend of The economy and society [13],[14] stating that the government sector should help the enterprises on cheaper bank loan, infrastructure, and counseling services in increasing product quality. For continuing long term planning, they needed the measurement on the control of factory number. The authority should issue quality certification to the enterprises faster than nowadays.

CONCLUSION

A. Research

The findings suggested some guidelines in developing a curriculum on industrial engineering or industrial technology to be in line with the problems and solutions of the enterprises. This supports the strategic plan on sustainable economic structure and the structure of increasing production and the products and services' values based on the knowledge base and being Thai together with the preparation of entering Thailand 4.0.

B. Producers or enterprises

The findings suggested some guidelines in preventing the problems and prepare for the readiness of Thai frozen shrimp production.

C. Government sector

The findings provided useful information related both private and government sectors in planning and developing measurements or policies to solve the export problems of Thai frozen shrimp products.

D. Education

The findings provided useful information for educators and students to be applied in their further researches.

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