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Strategies for Creating Marketing Advantages in Agro-Processing Industry Business

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Abstract

The Agro-Processing Industry is one field of business crucial to the national economy which is currently facing challenges due to the declining prospect in the export sector. This research aims to study the strategies of creating marketing advantages in the Agro-Processing industry business. The research was conducted in both quantitative and qualitative methodologies, collected quantitative data from 500 marketing executives in the agro-processing industry, applying descriptive, inferential, and multivariate statistics in data analysis.

The research revealed that there were strategies of creating marketing advantages in the Agro-Processing industry business, ranking from its of priority in four areas as; Organisation Management ($\bar{X}$ = 4.15), with the most important part of "establishing an agency to have a direct responsibility in marketing activity" ; Value Creation ($\bar{X}$= 4.08), with the most important part of "having various and convenient payment services for the customers" ; Innovation and Technology ($\bar{X}$= 4.07), with the most important part of "applying telecommunication system for data researching" ; and Business Alliance ($\bar{X}$= 4.02), wih the most important part of "registering for membership in organisations or agencies concerning agro-processing products to be informed of significant policies and information". The hypothesis test results show that, overall, large-scale and medium to small-scale agro-processing businesses give priority to the strategies of gaining marketing advantages differently, with statistically significant level of 0.05.

The analysis result from developed structural equation model show that "passed according to the assessment criteria, having an accordance with empirical data with the probability level of Chi-Square equals 0.254, relative Chi-Square value equals 1.070, Goodness of Fit index value equals 0.966, and Root Mean Square Error of Approximation index value equals 0.012.

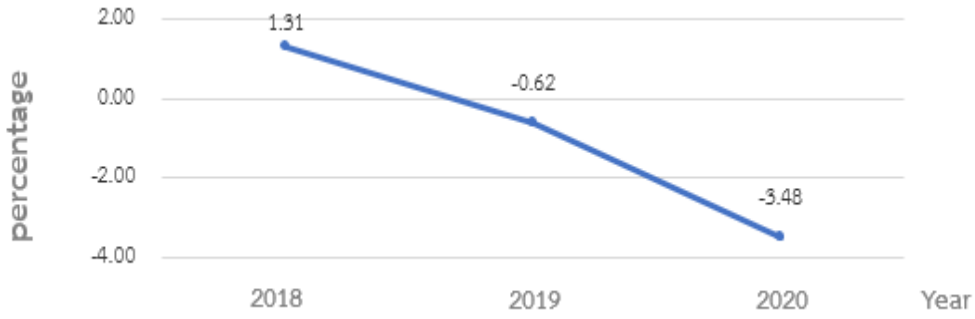
Key Words : the strategies of creating marketing advantages in the Agro-Processing industry business, structural equation model

Introduction

The 20-year National Strategy B. E. 2561-2580 indicated that Thailand to have constant economic growth in order to achieve a "high-income country" status, for the population to have good quality of life and receive equal opportunities and benefits, for a strong domestic economy, and for thoroughly development in all regions, with the inclusion of building foundations of economy and a society of the future. To be in line with the changing development context, the government has designated the strategy on stimulating the country's competitiveness with the goals of stable and sustainable economic development with higher competitiveness level. In the light of the value creation of the agricultural sector, the government emphasises on the productivity increase, technological adaptation, and local

wisdom-based innovations in the form of agricultural goods processing for more diversity and creating differences among the products into both domestic and international markets (Office of the National Economic and Social Development Board, 2018) in accordance with the 12th Economic and Social Development Plan B.E. 2560-2564 which designates the agricultural sector development while taking advantage from biological resource base to expand the knowledge and develop products for more added value, with the agricultural industrial expansion indicators must be at least 3%, 4%, 5%, and 6%, respectively (Prime Minister's Office, 2016).

For Thailand, the data shows that the export value of the agricultural industry year B.E. 2561-2563 has a constant declining prospect, in contrast with the 20-year National Strategy which set the goal of driving the economy to stable and sustainable growth and to develop for a higher competitiveness level.



Figue 1: Percentage of expansion for agricultural-industrial products export value, Year B.E.2561-2563 (Information and Communication Technology Center, 2021)

The graph above shows the constant declining prospect of expansion percentage, the agricultural industrial export value year B.E. 2561-2563 did not meet the the goal set in the 12th Economic and Social Development Plan.

Research objectives

1. To examine the strategies of creating marketing advantages in the Agro-Processing industry business
2. To develop the structural equation model and the strategies of creating marketing advantages in the Agro-Processing industry business

Research Hypotheses

1. Organisation Management element directly influences Value Creation element.
2. Organisation Management element directly influences Business Alliance element.
3.Organisation Management element directly influences Innovation and Technology element.
4. Innovation and Technologyelements directly influence Value Creation element.
5. Business Alliance element directly influences Innovation and Technology elements.

6.The significance level of the strategies of creating marketing advantages in overall Agro-Processing industry business is different classifying from the different scales of business.

Research Methodology

This research is the development of new knowledge using the Mixed methodology

Quantitative research using in-depth interviews from 9 experts consisting of 3 entrepreneurs or executives of agro-processing firms, 3 government executives or related agencies, and 3 academic experts. The interview questions are open-ended from theory and literature review which consists of 4 components including 1) Organisation Management 2) Value Creation 3) Innovation and Technology and 4) Business Alliance. The Index of Item Objective Congruence (IOC) values between 0.80-1.00 (acceptance level at >0.5) when bringing 100 questions of 4 components to try out and analyse to find the confidence level of the survey by applying Conbach's Alpha Coefficient, it results in 0.980 (accepted at >0.8) while the results of the analysis of the discriminant power of both the checklist questionnaires were analyzed by the standard deviation analysis. The value was between 0.31–0.91 and the scale question analyzed with the Corrected Item–Total Correlation values, the values were between 0.31–0.77, respectively.

Quantitative Research, by sending questionnaires to the executives of agro-processing firms with 3-year consecutive profit, total 3,120 people (Department of Business Development, 2020) including small and medium-scale businesses (the ones with less than 200 million Baht registered capital or employing less than 200 people), and large-scale businesses (those with more than 200 million Baht worth of permanent assets and employing more than 200 people) , of which the size of samples is 500 (Comrey and Lee, 1992 mentioned in Thanin (2020)) consists of 250 from small to medium-scale firms and 250 from large-scale firms. The questionnaires are in forms of Checklist and Rating Scale with the criteria for score weighting to 5 levels according to Likert method. The data analysis using both descriptive statistics and SPSS programme-referred statistics while the multivariate statistical analysis and structural equation model development utilise the AMOS programme with 4 criteria evaluating the Data-Model Fit used in the consideration as followed; 1) Chi square probability value of >0.05, 2) Relative Chi-Square value <2.00, 3) Goodness of Fit index value >0.90, and 4) Root Mean Square Error of Approximation index value <0.08

Qualitative research using focus group technique with 11 qualified experts guarantee the structural equation model of the strategies of gaining marketing advantages in the Agro-Processing industry.

Research Results

The general analysis results of the samples, the study found that the respondents from small to medium-scale agro-processing firms are equal in number with those from the large-scale (accounting for 50.00% each), 4-6 respondents are marketing staff, making the majority (accounts for 37.80%). Majority of the surveyed agro-processing businesses are in the vegetable and fruit category (accounts for 29.20%), running the business for more than 20 years (50.20%), and were awarded as International-level outstanding products (25.60%).

The analysis results on the Organisation Management found that the entrepreneurs prioritise organisation management with high average value ($\bar{X}$= 4.15). When separately considered by items or parts, it is found that establishing agencies to have a direct responsibility in marketing activity have the highest average value ($\bar{X}$ = 4.53).

The analysis results on the Value Creation found that the entrepreneurs prioritise on value creation with high average value ($\bar{X}$ = 4.08). When separately considered by items or parts, it is found that having various and convenient payment services for the customers have high average value ($\bar{X}$4.38).

The analysis results on the Innovation and Technology found that the entrepreneurs prioritise on Innovation and Technology with high average value ($\bar{X}$= 4.07). When separately considered by items or parts, it is found that applying telecommunication systems for convenient and fast data research regardless of location has a high average value ($\bar{X}$= 4.38).

The analysis results on the Business Alliance found that the entrepreneurs prioritise on business alliance with high average value ($\bar{X}$= 4.02). When separately considered by items or parts, it is found that registering for membership in organisations or agencies related to agro-processing products to be informed of crucial policies and information has high average value ($\bar{X}$= 4.30).

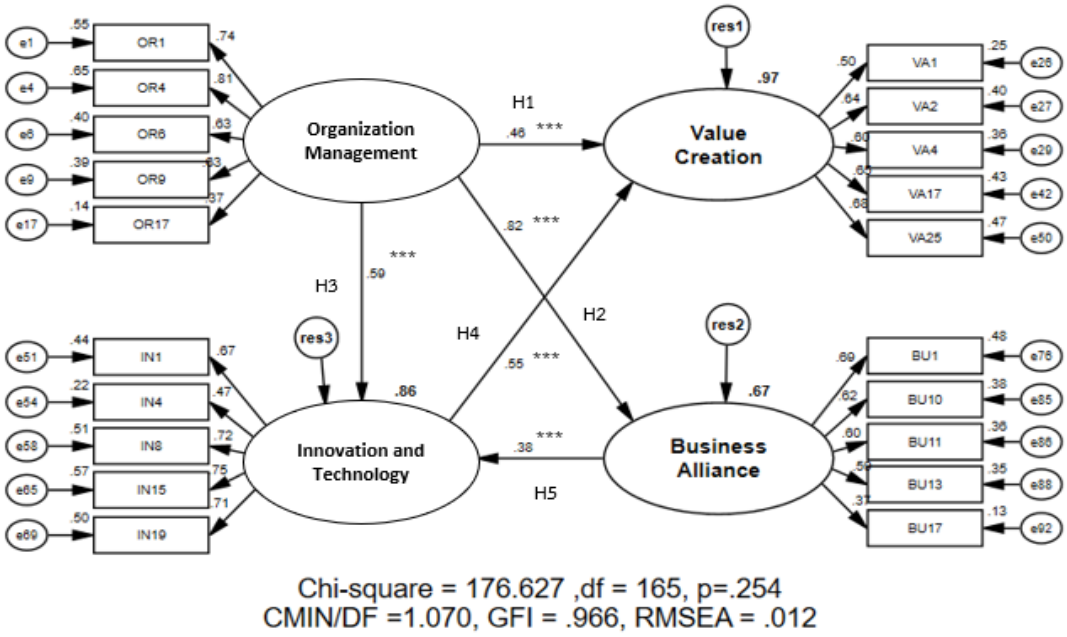
The analysis according to the research objective of studying the strategies of gaining marketing advantages in the Agro-Processing industry consists of 4 components that are Organisation Management, Value Creation, Innovation and Technology, and Business Alliance, all 4 components deived from reviewing of related literature. It appears that the empirical information has the congruence with having the p-value = 0.254, CMIN/DF = 1.070, GFI = 0.966, and RMSEA = 0.012, with statistical significance at 0.001, the Congruence with the literature and empirical information pass the designated criteria.

The analysis according to research objective of develop the structural equation model andthe strategies of creating marketing advantages in the Agro-Processing industry business by analysing the direct, indirect, and overall influences of the variables developed within the Structural Equation Modelling (SEM) as presented in Figure 2.

Table 1: Observed variables, the strategies of creating marketing advantages in the Agro-Processing industry business

Abbreviation	Strategies for Creating Marketing Advantages in Agro-Processing Industry Business
Organization Management	
OR1	Analysing strengths, weaknesses, and opportunities to designate as a vision, mission, and strategy.
OR4	Apply business management tools in planning to align with strategies and policies.
OR6	Develop a marketing standard of operation that clearly outlines the process in order to establish standards in operation.
OR9	Organizations have flexibility to adapt to future changes such as new business environments, changing business models.

OR17	Campaign to create awareness for personnel at all levels to utilize the avaiable resources in the organization effectively
Value Creation	
VA1	The organization has allocated an adequate and reasonable budget for marketing operations.
VA2	Having a policy to act according to the agreements given to customers strictly
VA4	There are personnel to answer inquiries through various channels such as telephone, webboard, online.
VA17	Emphasis on creating products that can convey a unique brand story that is different from competitors.
VA25	pushing for products to be certified in international level
Innovation and Technology	
IN1	laying out business strategy and innovation strategies in the organization to be consistent in the same direction
IN4	Implement information technology systems to search information easily and quickly, no matter where you are.
IN8	Demand on linking information through the whole supply chain among personnel, suppliers and customers.
IN15	Modern production technology is used to improve production in order to gain an competitive advantage.
IN19	The organization focuses on reducing the production process time (Lean) to increase the efficiency of work.
Business Alliance	
BU1	There is a plan to invest in new businesses together with trade partners by emphasizing on expanding from the existing business.
BU10	Cooperate with manufacturers of similar products to exchange mutual benefits.
BU11	Develop advertising and promotional campaigns with partners.
BU13	Organize training or learning skills together with trade partners to increase the potential of personnel.
BU17	Become a member of organizations or agencies involved in processed agricultural products to know important policies and information.



Item 2 presenting the relationships within Structural Equation Modelling

Table 2 Standard weighing values of direct influence line, indirect influence line, and overall influences between independent and dependent variables

Latent Variable	Organization Management	Business Alliance	Innovation and Technology	Value Creation
Business Alliance	0.82	0.00	0.00	0.00
Innovation and Technology	0.90	0.38	0.00	0.00
Value Creation	0.95	0.21	0.55	0.00

From Item 2 and Table 2, the congruence between influences of variables can be explained in the following hypothesis ;

The analysis result of the overall influence of latent variables within the structural equation model of the strategies of creating marketing advantages in the Agro-Processing industry business in the Standardised Estimate Mode, after model adjustment, found that the high-value overall influence belongs to organisation management, overall influencing Value Creation, having standardised Regression Weight equals 0.95 (0.32+0.17+0.46 = 0.95) which comes from 1) indirect influence between organisation management to Innovation and Technology at the value of 0.59, to Value Creation at the value of 0.55 (0.59x0.55= 0.32) 2) Indirect influence between organisation management influencing business alliance at the value of 0.82 then to Innovation and Technology at the value of 0.38 and then to Value Creation at 0.55 (0. 82×0.38×0.55=0.17) and 3) Direct influence between organisation management to value Creation at 0.46.

Result Discussion

The importance level of the strategies of creating marketing advantages in the Agro-Processing industry business found that, overall, its importance is in the high level, the average value equals 4.08. On organisation management, the importance level is high, the average value equals 4.15. On value creation, the importance level is high, the average value equals 4.08. On innovation and technology, the importance level is high, the average value equals 4.07. On business alliances, the importance level is high, the average value equals 4.02, respectively.

Organisation Management element directly influences value creation element which has statistical significance at the level of 0.001, influence line weighing value at 0.46. The firm's internal factors including organisational structure, working system, shared values among the staff, and working skills all contribute to the creation of the products' value, complied to Barrales-Molina, Martínez-López, and Gázquez-Abad (2014) mentioned about organisation management to adapt toward the business-conducting environment. Emphasising on value creation that complies with the target customers, such as high-quality goods and service production, reasonable pricing, excellent service, and providing useful information for the customers on a regular basis – all these activities will provide the competitive advantages and eventually affect the conduct of the business. Alberti and Belfanti (2019) once mentioned organisation management as value creation, for the long-term success leading to business outcomes in the forms of income, profit, market share, building of a new market, cost cutting or reducing in many areas.

Organisation Management element directly influences business alliance element, with statistical significance at the level of 0.001, influence line weighing value at 0.82. To be successful, an entrepreneur must rely on business alliances, a capable connection that is outstanding and unique will provide business experience to enhance competitive limits, complied to Rehman (2017), saying an organisation may have a strong connection with both public and private agencies and may profit from such relationship to get a rapid access to information significant for business development. Engchuan (2018) argued that if an organisation has a cooperative connection with public and private agencies, Universities, Research institutions, and local communities, it can utilise such connection to push the competitive limits of the entrepreneurs. Wantanakomol (2021) argues that proper administering an organisation to be prepared for cooperation with other entrepreneurs will lead to the new business connection that will expand the market further

Organisation Management element directly influences innovation and Technology element, with statistical significance at the level of 0.001, influence line weighing value at 0.59. Organisation Management by increasing the capability of production cost cutting and waste reduction will enhance the business to own an innovation for high-quality goods production, hard to duplicate, and completely unique, all of these will make the business be conducted in higher quality, complied to Nanthasudsawaeng (2020) saying organisation management in accordance to a proper structure has a direct influence on innovation enhancement. Kotler and Keller (2009) argue that successful business operations must emphasise on organisation management, to operate the business successfully and effectively depends on orderly organisation management. Chairattanaphanich and Saijam (2019) argue that the main strategy of an organisation must focus on making new business opportunities

from applying Innovations to be ready for competitions and changes both internal and external.

Innovation and technology elements directly influences value creation element, with statistical significance at 0.001, influence line weighing value at 0.55. Due to the rapid technological change in this era, an organisation must have the innovative capability to develop the products that can meet the customers' and the market's demands to retain the long-term competitive potentials, fitting complid with Nyeadi, Kunbuor, and Ganaa (2018) suggestion that innovation helps lessen wastefulness and increase production effectiveness, consumes less time and labour, generating more opportunities in new markets and also generates new demands for the products. Naiman (2018) says the success of innovations and creative ideas lead to valuable product designs which breeds higher sales for the firms. Phumsiri, Bua-In, and Silpcharu (2020) mention that the success of a firm depends on the application of telecommunication technology to expand the selling channels.

Business Alliance element directly influences innovation and technology elements with statistical significance at 0.001, influence line weighing value at 0.38. A firm that has a cooperative connection with public and private agencies can take advantage of the web to support its own innovations and increase its competitiveness. Hareebin, Aujirapongpan, and Siengthai (2016) say that the participation of the business network can enhance the innovative capability of both participants and the network if there is the build-up and administering of such network in the correct and orderly fashion and truly encouraging for all participants. Török, Tóth, and Balogh (2019) mentioning the relationship between firms and a form of knowledge sharing between entrepreneurs which both are helping in innovation development.

When comparing each components ofthe strategies of creating marketing advantages in the Agro-Processing industry business, overall, it is found that there is a significant statistical differences at 0.05 due to the large-scale firms having numerous facilities, large number of skilled labour that have wide-ranging aptitudes and responsibilities, receive diverse investments from varying organisations or partners, and owning more modern innovations and production technology, all contribute to them having more complex than the small and medium sized firms. This narrative is in line with the research by Phonkhen and Ruangchoengchum (2017) stated that the competitiveness evaluation on the Entrepreneurship and the resource management, the entrepreneurs in large industries have the effectiveness in production factors and the suitability of the machines and output quantity adequate for the markets' demands, saving from the size and with the higher number of labour leads to more output produced than those of small and medium sized.

Suggestions

1. The high-ranking executives must modify the strategies to be flexible for the future changes such as new business environments to lead the firm to constant competitiveness.
2. The firm must produce the goods of quality and meet the customers' demands by emphasising the differences and innovativeness of the products, also applying modern production technology to develop the quality of the goods.
3. The firm should conduct proactive marketing, entering new markets to increase the sales constantly by applying telecommunication technology such as participating in online markets to offer easier access to goods for the customers.

4. The firm should cooperate with the partners to plan new investment in new industries for the mutual benefits.

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