

Chapter 3

Research Model and Hypotheses

Critique of Past Researches

Statistical analysis of data based on successful industries in ten industrialized countries is used to construct the diamond framework. International competitiveness is defined by successful export. Porter describes international competitiveness at national level of analysis by evaluating attributes internal to firm, attributes external to firm, and effect of external environment factors. These attributes are factor conditions, demand conditions, company's structure, strategy, and rivalry, and related and supporting industries. External environment factors are government-related factors and chance events. The four attributes of diamond framework and the two external environment factors are interdependent of each other. While Porter defines level of analysis to be national level, he agrees that firms, not the nation, compete in international markets. Questions arise whether all these attributes and external factors can be used to explain the international success of an industry operating in the environment of developing country.

This study attempts to clarify whether each of the diamond attributes and each of the external factors contribute to the success of a particular industry under environment of developing country. Each attribute and each external factor is tested for their correlation with the export performance. The study, further, tries to explain the extent to which these attributes together contribute to the export success. As Porter has pointed out firms, not the nation, compete in the international markets. This study analyzes data based on information obtained at firm's level.

Propositions

Diamond framework defines determinant factors governing the export success as factor conditions, demand conditions, company's structure and strategy, intensity of domestic competition, and related and supporting industries. Two external environment factors effecting the export performance are roles of government and chance events. The research study to identify whether there is correlation between each of the attributes and the successful export performance. Diamond framework is tested through series of propositions.

Under factor conditions, Porter suggests that favorable factor conditions lead to successful export performance. These factors are availability of quantity and quality of raw material, cost of raw material, availability of quantity and quality of labor, cost of labor, competent employees, qualified R&D personnel, human resources training, products development, controlled production standard, production technology, and technology development.

P1: Favorable factor conditions lead to successful export performance.

Favorable demand conditions include large domestic demand, high growing domestic demand, sophisticated or demanding domestic demand, and internationalization of home demand. These conditions are positively related to the successful export.

P2: Favorable demand conditions lead to successful export performance.

Favorable company's structure and strategy govern the successful export performance. Existents of export department and export commitment are favorable conditions for company's structure that lead to success export performance. Export performance is affected by company's strategy. These strategy are export sales plan, customer plan, customer relationship, prompt

delivery, quantity and quality control, low price strategy, differentiated strategy, brand name, and Thailand origin.

P3: Favorable company's structure and strategy leads to successful export performance.

Porter suggests that high level of competition in domestic market lead to constant upgrading and improving performance. Improved performance leads to successful in both domestic and export.

P4: High level of domestic competition lead to successful export performance.

Upstream industries can contribute to the success of company's performance. Availability of competitive supporting industries can add to the success of downstream industry. Related industries can coordinate and share activities of complement products. These related and supporting industries are domestic transportation, international transportation, domestic telecommunication, utility system, finance and banking, insurance, packaging, machinery, food additive, and biotechnology.

P5: Competent related and supporting industries lead to successful export performance.

Government roles and policies can provide both negative and positive operational environment to successful export performance. These roles and policies are custom department administration, tax exemption and tax return system, and export promotion.

P6: Government roles and policies influence the level of export performance.

Unpredictable events can alter the competitive position of companies within nation. Chance events affecting export performance are currency

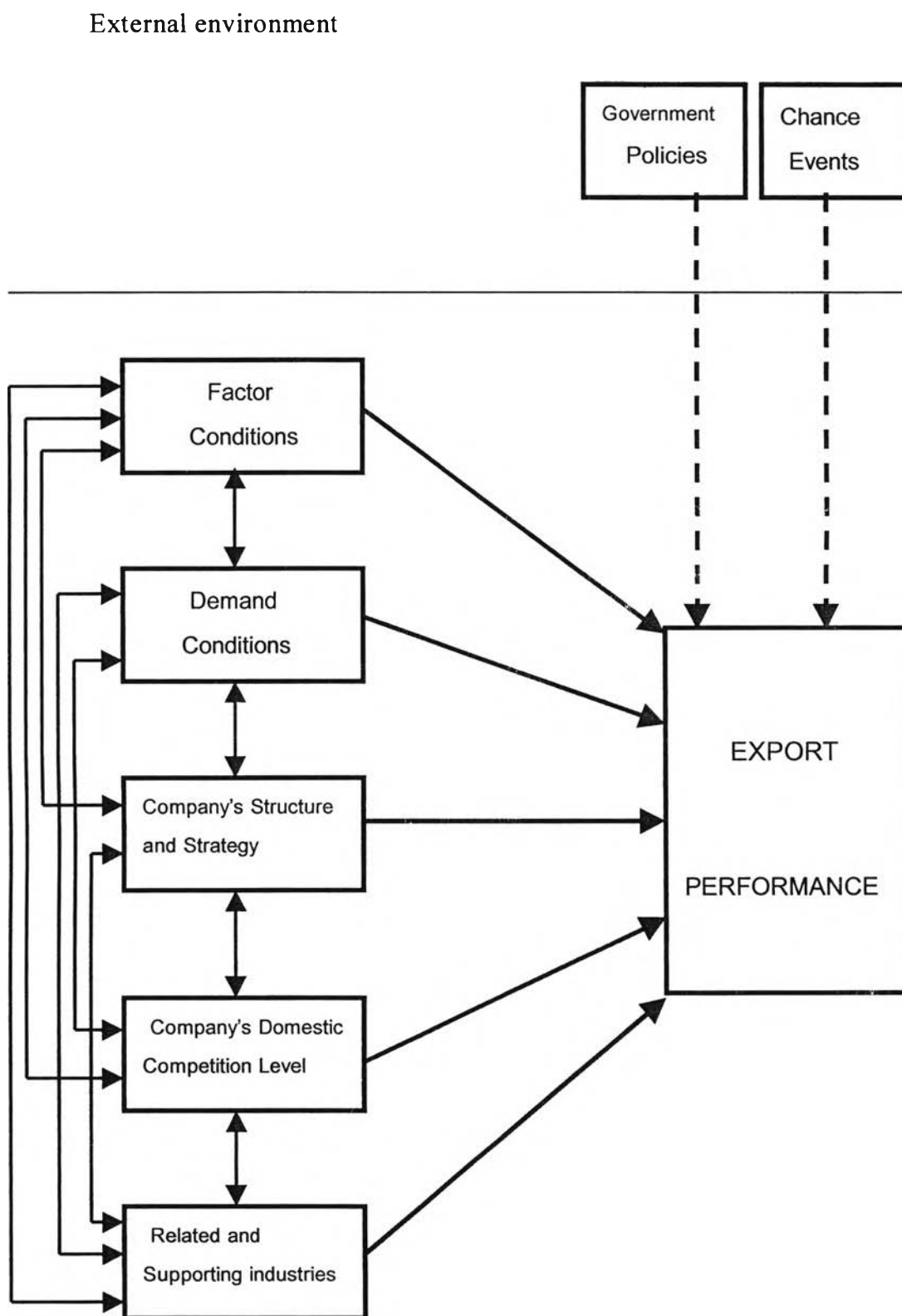
devaluation, importing support cut, changes in importing policies, production standard imposition, new product invention or innovation, political changes, war, oil crisis, natural disaster, and epidemic. Affecting chance events can occur in exporting countries, importing countries, and export competing countries.

P7: Chance events influence the level of export performance.

Proposed Framework for Export Performance

Framework for export performance can be drawn from the above 7 propositions. The 5 factors determining export performance are factor conditions, demand conditions, company's structure and strategy, domestic competition level, and related and supporting industries. The 2 external environment factors affecting export performance are government roles and policies and chance events. The proposed framework for the study is shown in figure 3.1.

Figure 3.1 Proposed Framework of Export Performance



Hypotheses

Propositions are tested according to the following hypotheses.

1. Relationship between factor conditions and the Thai food export performance.

Porter classifies factor conditions into two categories, basic factors and advanced factors. Basic factors are defined by 6 questions in the questionnaire. These questions are Question 21 to Question 26. Basic factors are concerned with quantity, quality, and cost of raw material, and quantity, quality, and cost of labor. Advance factors are defined by the next 7 questions, Question 27 to Question 33. Advanced factors are concerned with competence employees, R&D personnel, human resources training, product invention and product innovation, production standard control, production technology, and technology development. Following hypotheses test each of the two factors separately. One hypothesis tests whether basic factors contribute to the success of Thai food export. The other tests whether advanced factors contribute to the success of Thai food export.

H_{O11}: Basic factor conditions are not positively related to the Thai food export performance

H_{A11}: Basic factor conditions are positively related to the Thai food export performance.

H_{O12}: Advanced factor conditions are not positively related to the Thai food export performance

H_{A12}: Advanced factor conditions are positively related to the Thai food export performance.



2. Relationship between demand conditions and the Thai food export performance.

Porter points out that domestic demand conditions influence the companies or industry ability to compete internationally. Important demand conditions in shaping up the international success are the size and growth rate of domestic market. Demanding domestic consumers are good at stimulating companies to develop, enhance, and upgrade their products. Therefore, tough domestic demands provide strong ground for international success. While Porter's framework is based on industrial countries, this study based on food industry in Thailand, the question is whether Porter's demand conditions apply to Thai food industry. Question 45, 46, 49, and 50 are concerned with demand conditions.

H_{O2}: Specific demand conditions are not positively related to the Thai food export performance.

H_{A2}: Specific demand conditions are positively related to the Thai Food export performance.

3. Relationship between company's structure and strategy and the Thai food export performance.

Similar to Aaby and Slater (1988) and Chetty and Hamilton (1993), Porter agrees that company's structure and strategy in which companies are managed and choose to compete affect the ability of companies' export performance. Question 34 and Question 35 are concerned with company's structure. These questions are organization structure and export commitment. Question 36 to Question 44 are concerned with various strategies. These questions are export sales plan, customer plan, customer relationship, prompt delivery, quantity and quality control, cost strategy, differentiated strategy, brand name, and Thai origin. They test which strategies are appropriate for food export industry.

H_{O3}: Company's structure and strategy are not positively related to the Thai food export performance.

H_{A3}: Company's structure and strategy are positively related to the Thai food export performance.

4. Relationship between level of competition of domestic competition and the Thai food export performance.

Intense or vigorous domestic rival forces companies to constantly improve its products and processes in order to stay competitive. The domestic competitiveness extends internationally. Further more, intense domestic competition drives companies to expand their markets abroad, thus, a need to improve their international competitiveness. Question 47 and Question 48 test level of domestic competition.

H_{O4}: Level of domestic competition is not positively related to the Thai food export performance.

H_{A4}: Level of domestic competition is positively related to the Thai food export performance.

5. Relationship between related and supporting industries' competitiveness and the Thai food export performance.

Supporting industries can provide early, easy, and rapid access to the most cost-effective inputs. There are advantages to be gained from ongoing coordination between upstream and downstream industries. Internationally competitive related industries coordinate and share activities in the value chain for the benefit of both industries. Question 51 to Question 60 test the importance and the competency of related and supporting industries. These industries are domestic transportation, international transportation, domestic telecommunication, utility, finance and banking, insurance, packaging, machinery, food additive, and biotechnology.

H_{O5}: Competence related and supporting industries' competitiveness is not positively related to the Thai food export performance.

H_{A5}: Competence related and supporting industries' competitiveness is positively related to the Thai food export performance.

6. Relationship between government policies and the Thai food export performance.

Government can influence the competitiveness of industry through its roles and policies. These roles and policies are custom department administration, tax exemption and tax return system, and export promotion. These questions are represented by Question 61 to Question 64.

H_{O6}: Government policies are not related to the Thai food export performance.

H_{A6}: Government policies are related to the Thai Food export performance.

7. Relationship between chance events and the Thai food export performance.

Chance events can influence the competitiveness of industry. While it is difficult to predict and guard against chance events, chance events are important as they can alter the competitive position. Chance events impacting the export success are currency devaluation, importing support cut, changes in importing policies, production standard imposition, new product invention or innovation, political changes, war, oil crisis, natural disaster, and epidemic. Question 16 to Question 18 test the impact of chance events on export performance.

H_{O7}: Chance events are not related to the Thai food export performance.

H_{A7}: Chance events are related to the Thai Food export performance.