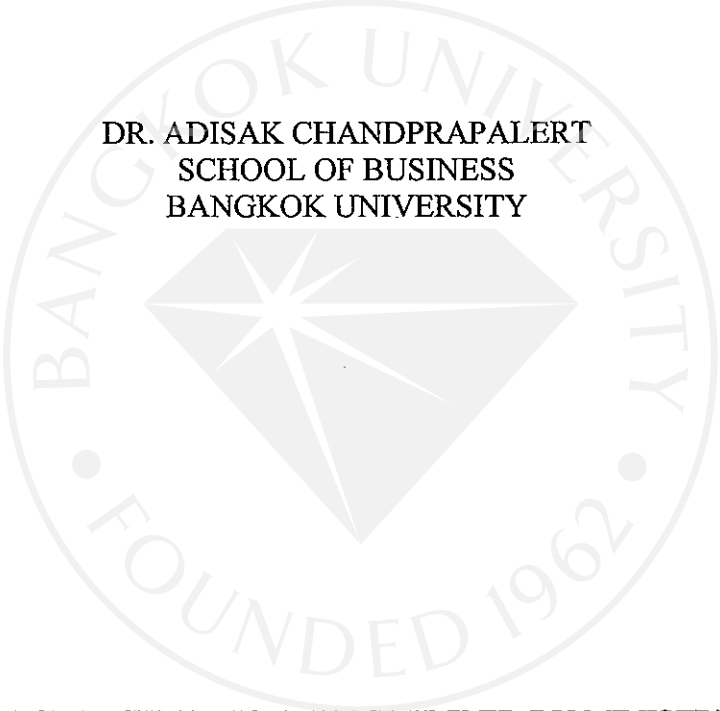# THE THAI BUYER'S SELECTION CRITERIA TOWARD INDUSTRIAL MACHINERY FROM JAPAN, GERMANY, AND UNITED STATES: AN INVESTIGATION ON THAI TEXTILE COMPANY

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THE THAI BUYER'S SELECTION CRITERIA TOWARD INDUSTRIAL MACHINERY FROM JAPAN, GERMANY, AND UNITED STATES: AN INVESTIGATION ON THAI TEXTILE COMPANY

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ABSTRACT

The main objective of this study was to investigate the nature and relative importance of selection criteria of a foreign supplier of industrial machinery products in both supplier and product characteristics among Japanese, the United States, and German exporters. The research model and research hypotheses were developed of three industrial buying behavior concepts; one by Webster & Wind (1972), one by Sheth (1973), and one by Samli, Grewal & Mathur (1988). The survey method was used in this research study through a personal interview of 310 textile companies that imported textile machinery product from Japan, United States, and Germany. The statistical technique of an analysis of co-variance (ANCOVA) was used in this research study to analyze the dependent variable (matrix) and independent variable (group cateory and matrix). The results indicated that there was a significant difference between selection criteria and decision making for buying industrial machinery products by Thai import purchasing managers. There were significant difference of product characteristics and supplier's country image among Japanese, the United States, and German exporters by Thai import purchasing managers' perceptions. Meanwhile the satisfactory with a past purchase and supplier's characteristics show a no direct effect on the selection decision on a foreign supplier

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CHAPTER ONE

INTRODUCTION

Problem

Global economic and business conditions have forced international business

researchers to study the international dimensions of business and marketing.

Unfortunately, the increased study of the international dimensions of business have

focused on exporting and export activities, while the buyer's (importer's) processes and

its management have been ignored. Despite that, understanding of buyer (importer)

behavior is necessary for developing effective export strategies. As Ghymn (1980)

stated, "international marketing should be a tool valuable to both exporters (sellers) and

importers (buyers) in theory and practice. Therefore, international marketing should

include the importing process and its management (p.262)."

Ghymn (1980); Garrett (1985); Habte-Glorgis (1986); and Deng (1987) have

attempted to study importer buying behavior in order to provide some understanding of

the decision criteria used to evaluate and select foreign suppliers. Moreover, there are

only a few existing research studies that have investigated the selection criteria used by

Thai import companies. Thus, the researcher will investigate what selection criteria are

used to evaluate the foreign suppliers by Thai import companies, especially textile

industrial machinery products. In 1996, more than 60 percent of the total imports of

industrial machinery products in Thailand come from the following countries—Japan, the

United States, and Germany (Business Economic Department of Thailand, 1996).

Among these three major industrial machinery product exporters to Thailand, Japanese

exporters have the largest market share followed by United States, and the German

exporters. Therefore, the researcher will examine how Thai import purchasing managers perceive both supplier and product characteristics of these three major textile machinery exporters. The results of this investigation can help both suppliers—the United States, and Germans, strengthen the weak points of their products and suppliers attributes in order to compete with Japanese exporters. Eventually, they can get higher market shares in the Thai textile machinery market. On another hand, the higher the competition, the more benefit to the consumers (Thai import companies). Higher competition of textile machinery exporters generates more opportunity, and more potential choices for Thai import companies to have a good product, and a good supplier.

In addition, importer's buying behavior is very complex. Study needs to be done not only of foreign supplier decision criteria but also the influence of various individual, organizational, and situational factors on the evaluation and selection decisions for foreign suppliers.

Finally, individual factors may have significant effects on buying behavior such as individuals' perceptions, beliefs, personality, experience, and so on. The present study emphasizes only individuals' perceptions on country-of-origin stereotypes and experience of past purchasing (loyalty concept) that have influenced on selection decisions of suppliers by Thai import companies. As Jolibert & Lohnes (1982) found, country-of-origin effects have played an important role in the perception process of American and French purchasing managers for evaluating industrial products made in England, France, West Germany, Japan, and the United States. Similarly, Wind (1970) noted that the concept of loyalty is one of the major determinants in industrial buying decisions. These researchers found that both country-of-origin effects and past

purchasing experiences have a significant effect on industrial buyers' decisions. There are, however, no research studies on the importance of the impact of country-of-origin stereotypes and loyalty concepts for Thai import companies when making decisions in buying textile machinery products from foreign suppliers. Thus, Thai import purchasing managers' perceptions of country-of-origin images and past purchasing experiences in buying industrial machinery products are investigated in this research study.

Problem Background

As global economic growth occurs, international trade is becoming increasingly important (Beamish, Killing, Lecraw, & Crookell, 1991). This leads to high competition in the world market. The understanding of marketing in all cultures is a significant element to consider in all exporting firms in any firm or nation. Many firms and nations need to improve their abilities to compete successfully in the international marketplace in order to capture a larger market share.

Today, some of the less developed countries (LDCs) have emerged in the world market as a large proportion of the consumers in international marketplaces, especially in Asian countries. These consumers have increased their purchasing power in world trade. Thailand is one Asian country that has increased its role as an importer and exporter in the world market. Thailand has drastically increased its amount of importation since 1991.

Table 1

Thai Importation by Commodity Group in 1996-2001 (Billion baht.)

Year	Total	Industrial Goods	Consumer Goods
1996	1,833	279	151
1997	1,924	256	161
1998	1,774.1	169.7	154.5
1999	1,907.7	151.8	159.7
2000	2,494.2	222.3	199.6
2001	2,756.7	269.9	224.9

Source: *Bangkok Bank (2002), Thailand Economic Data.*

The table 1 indicates that Thailand is likely to be a huge market in the future. It is an exciting marketing for exporting countries. This is particularly true for industrial products that are of major importance in the business system of the nation. The understanding of Thai industrial importers' buying behavior is necessary to the success of the Thai market.

There are three Thai major industrial exporting countries--Japan, the United States, and Germany. These three countries are considered the biggest exporters of industrial products to Thailand. Table 2 shows the amount of Thailand's importation of industrial machinery from these three countries between year 1996 through year 2001.

Table 2

Thai's Importation of Industrial Machinery in 1990-2001 (in Billion Baht)

Year	1996	1997	1998	1999	2000	2001
Japan	518	492	420.3	464.4	615.7	616.5
USA	229	267	249.7	243.5	293.6	318.7
Germany	93	91	76.2	60.2	78.4	113.8

Source: *Bangkok Bank (2002), Thailand Economic Data.*

Table 2 indicates that Japan is the largest exporter of industrial machinery to Thailand, while the United Sates and Germany are the second and third exporters of industrial machinery, respectively. Thus, in order to be competitive exporters, these three major exporting industrial countries should understand Thai importer buying behavior and the important variables involving supplier selection decisions. This information can lead them to be leading exporters in the Thai market and other Asian countries.

Similarly, as the growth rate of Thai's importation has continued to increase, the selection of foreign suppliers or exporters will become more important than ever. Consequently, Thai import companies' purchasing managers have to seek out the best supplier in order to obtain competitive advantage in the international marketplace. Therefore, an understanding of the elements of product and supplier selection criteria can help to make buying decisions more effective and efficient.

Understanding the conceptual models of organizational buying behavior by Webster & Wind's (1972); Sheth's model (1973); and Samli, Grewal, & Mathur's model (1988) can add to the understanding of exporting in general. Another important approach to the study of importers' perceptions is the work of Khanna (1986); Ghymn (1983); and Yavas (1987) who found that the importers' perceptions of exporters have strongly affected the importers' purchasing decisions. In addition, other factors that may influence Thai importer purchasing managers' perceptions are the impact of country-of-origin, impact of price and quality, impact of risk, impact of the loyalty concepts, and the impact of governments and regulations (White, 1979; Shipley, 1985; Sweeney, Mathews & Wilson, 9173; Bubb & Rest, 1973; and Samli, Grewal & Mathur, 1988).

<u>Literature Review</u>

In the past two decades, many researchers have created models of buying behaviors such as Robinson, Faris & Wind's buygrid model (1967); Wind's industrial source loyalty model (1970); Webster & Wind's organizational buying behavior model (1972); Sheth's industrial buying behavior model (1973); and Samli, Grewal & Mathur's integrative model of international industrial buyer behavior (1988). The following paragraphs present the principals of organizational buying behavior as espoused by Webster & Wind (1972). His model indicates two important points of organizational buying behavior.

First, according to the model the organizational buying process has four stages: 1) problem recognition, 2) assignment of buying authority and responsibility, 3) a search process for identifying product offerings and for establishing selection criteria, and 4) choice process for evaluation and selection of alternative suppliers.

Webster & Wind's model (1972) is a principal theoretical base of organizational buying behavior, which has been extensively studied by the other researchers. For example, Sheth (1973) developed a model of industrial buyer behavior which consists of four essential components: 1) expectations of individuals involved in the decision, 2) organizational buying processes, 3) the decision-making processes, and 4) situational factors. Later, Samli, Grewal & Mathur (1988) proposed an integrative model of international industrial buyer behavior that included six groups of factors influencing buying units functions. They are individual factors, organizational factors, environmental factors, societal/cultural factors, government roles and regulation, and uncertainty factors.

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In addition, supplier selection is an important phase of the organizational buying process (Nydick & Hill, 1992). These researchers found that buyers generally establish a set of selection criteria to evaluate the potential suppliers. They also indicated that the basic criteria are price, product quality, delivery, and service. Similarly, Mummalaneni, Dubas, Chao, and Chiang-nan (1996) stated that purchasing managers need to periodically evaluate supplier performance in order to retain those suppliers who meet their requirements in terms of several performance criteria. There are six attributes that are frequently used as performance criteria. They are on-time delivery, quality, price/cost targets, professionalism, responsiveness to customer needs, and long-term relationships with the purchasing company. Many existing researches have studied various criteria used to select and evaluate suppliers—for example the ten important vendor performance characteristics of Wind, Green & Robinson (1968), the seventeen vendor attributes of Lehmann & O'Shaughnessy (1974), the twenty vendor performance attributes of Dempsey (1978), etc.

In an era of global sourcing, the buyers (importers) cannot only consider the importance of supplier selection criteria, but they also consider other important factors such as country-of-origin effects, loyalty effects, the impact of risk, and the impact of government and regulation. This research study emphasizes only the impact of country-of-origin, and the impact of loyalty. For the past three decades, the effect of a product's country-of-origin on buyer perceptions and evaluations has been one of the most widely studied phenomena in the international business, marketing, and consumer behavior literatures (Schooler's 1965; Nagashima, 1970; and Bilkey & Nes, 1982). For instance, Lawrence, Marr & Prendergast (1992) concluded that country-of-origin stereotyping is

often a determining factor in the buying process. Similarly, Loyalty is the behavior of choosing the same industrial product or supplier as the previous one. When consumers, or industrial buyers, gain experience and confidence in the products or services, a repeat purchase is made (Cunningham, 1956). This is know as brand or consumer loyalty. Industrial source loyalty can directly affect industrial buyer behavior (Wind, 1970). Bubb & Rest (1973) concluded that loyalty is one of the major determinants in industrial buying decisions.

Research Questions

The following are the research problems of the present study:

■ What are the important criteria that influence Thai import purchasing managers selection decisions for buying textile machinery products?

■ Do Thai import purchasing managers differ in their evaluation of these three Thai major exporters--Japanese, the United States, and German of textile machinery products on both supplier and product characteristics?

■ Do country-of-origin (stereotypes) and past purchasing experience (loyalty concepts) influence supplier selection decisions by Thai import purchasing managers?

Purpose of the Study

This study focuses on the importer's side of international trade by investigating Thai import buyer decisions' criteria for selecting machinery product for textile industry from Japanese, the United States, and Germany.

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Firstly, the purpose of this study is to find out what the important selection criteria are for foreign suppliers to Thai import purchasing managers for textile industry.

Secondly, this research surveys Thai import purchasing managers' evaluations of Japanese, the United States, and German industrial exporters' characteristics and the nature of their products (textile machinery product).

Finally, the importance of individual characteristics of Thai import purchasing managers perceptions are examined—for example purchasing experiences and stereotypes (country-of-origin).

Importance of the Study

As the market becomes globalization, an increasing number of firms that once concentrated on domestic sourcing are now seeking their supply bases from around the world (Min, 1994). To remain competitive, Thai textile companies should select the best of both suppliers and products with regards to significant factors, the environment, and situations. Thus, the study of selection criteria can help Thai textile companies choose the best alternative choices for their productions. To transact with a good supplier and quality product can assist the Thai textile company in competing with other companies in the world market, and lead to company success. Moreover, this generates higher benefits and profitability for the company in the trading business.

On another hand, the understanding of both the perception of Thai import companies' purchasing managers and the buying behavior of Thai import organizations can also help the three major industrial exporters—Japan, the United States, and Germany to develop an effective marketing strategies to succeed in the Thai market.

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Kraft & Chung's study (1992) supported the importance of this statement. They found

that the understanding of Korean importers' perceptions of exporters and the exporter's

products could help the United States exporters improve their ability to meet the

requirements and succeed in Korean markets. Similarly, Chao, Scheuing, Dubas &

Mummalaneni (1993) noted that an understanding of the decision processes and decision

criteria of Chinese purchasing managers can be essential to American marketers because

of the trend toward a globalization of business practices and cultures.

Limitations/Delimitations

Most of the empirical research studies to date concern consumer behavior for

selecting consumer products. This research study focuses on organization buying

behavior (Thai import companies) for selecting industrial suppliers and products. Thus,

the research finding results cannot be generalized to consumer buying behavior and

consumer products. In addition, the researcher will examine the research hypotheses from

both a supplier and product characteristics perspective, through only three major Thai

industrial exporting countries--Japan, the United States, and Germany. Consequently, the

results cannot be used to judge all other exporting countries such Korea, China, Canada,

or Britain on both supplier and product characteristics.

Usually, there are many factors that influence Thai import companies' decisions

for selecting foreign suppliers such as individual factors, organizational factors, social

factors, environmental factors, uncertainty factors, and governmental factors (Samli,

Grewal, & Mathur, 1988). This study emphasizes only individual factors involving past

purchasing experiences, and stereotypes (country-of-origin images). Clearly, there may be other factors that influence buying decisions.

The present study uses survey instruments to collect the data by personal interviews. Consequently, there may be interviewer biases that lead to distortions of the research findings. Due to Thai economy's crisis in the mid-year of 1997, it made Thai currency (baht) depreciate against the United States currency (dollar). Besides, Thai government changed the exchange rate from basket rate to floating rate. This has directly impact for Thai importing firms.

Definitions

■ Country-of-Origin can influence the market's perception of the product (Samiee, 1994). As competition in global markets increases, multinational companies manufacture products worldwide. Consumers may form positive or negative perceptions of a product.

■ Industrial Products are "purchased for business use and thus sought, not as an entity in itself, but as part of a total process (Cateora, 1996, p.413)."

■ Perceptions is "the process by which an individual selects, organizes, and interprets stimuli into a meaningful and coherent picture of the world (Schiffman & Kanuk, 1994, p.664)." Two individuals can view the same event at the same time but each of them may report a different story. Each story can vary because each participant perceived the event in a different way. Individuals' perceptions are based on the person's needs, wants, values, and personal experiences, not based on objective

reality (Schiffman & Kanuk, 1994). What consumers think can affect their actions and buying behavior so consumers' perceptions are important to marketers.

■ Stereotypes can be defined as "individuals tend to carry pictures in their minds of the meanings of various kinds of stimuli. These stereotypes serve as expectations of what specific situations or people or events will be like and are important determinants of how much such stimuli are subsequently perceived (Schiffman & Kanuk, 1994, p.667)."

CHAPTER TWO

LITERATURE REVIEW

Historical Background to Thailand's Garment and Textile Industry

Although Thailand has a long history of textile production, the modern garment and textile industry was established relatively late compared with other Asian countries (Koomsup, 1973). The country's first textile machines included 3,232 spindles and 72 looms, all imported from Germany by the Ministry of Defense in 1936 for military purposes (Koomsup, 1973). It was not until 1946 that modern privately-owned textile mills began to operate, with a total capacity of 3,600 spindles. The first privately-owned modern textile mills were, in fact, established by a local entrepreneur in response to textile shortages during the Second World War (TDRI, 1992).

After 1946, the industry expanded rapidly, particularly in mechanized spinning, with the number of spindles increasing to 43,000 in 1952. Production collapsed however in the late 1950s due to competition from low cost imported cotton textile from Pakistan. The price of imported cotton yarn was 25-30 percent below that domestically produced yarn. As a result, several Thai spinning mills went bankrupt and had to be closed down. The Thai government reacted by giving protection to the industry for the first time, imposing the Import Restriction Act on cotton yarn imports in 1955. The Act was amended to include fabrics in 1957 (TDRI, 1992).

Imported tariffs and the introduction of the Investment Promotion Act in 1960 encouraged investment. The textile mills closed during the 1950s were taken over and expanded by local entrepreneurs, and by Chinese entrepreneurs from Shanghai and Hong

Kong. Three Pioneer firms were established mainly for cotton textile. A few years later, joint venture with Japanese firms became important in man-made fibers (TDRI, 1992).

Overview of the Structure of the Textile Industry in Thailand

The textile in a broad sense include five industries; man-made fiber, dying and finishing, spinning, weaving and garment manufacture. The textile and garment industry has become particularly important to the Thai economy since the mid of 1980 (TTIS Textile Digest, 2000). The industry has grown rapidly that it contributes highest share of manufacturing Gross Domestic Product (GDP) and highest employment in manufacturing sector.

Most Thai textile firms are located in or around Bangkok. There are many firms in garment and weaving. There are at least 2,000 garment firms, ranging from those with less than 10 sewing machines to those with more than 1,000. The garment industry is characterized by low capital and simple technology. In some areas there are no appreciable entry costs as the minimum efficient scale of production is low (TDRI, 1992).

Leading technology in garment production has become more capital intensive as micro-electronic related innovations has developed. Computerized machines help the processes of designing, grading and cutting, while automatic machines, robots and computerized sewing machines can assemble parts of the garment. Such innovations can save 4-10 percent of material costs and 21-70 percent of labor costs (TDRI, 1992).

Problems

Although the Thai Textile industry has grown rapidly to become a major industrial sector, it is faced with major problems as summarized below (TTIS Textile Digest, 2000):

1) Most Thai textile export products are commodity types and therefore subject to fierce competition and lower prices;

2) Lack of product diversity and quality items due to shortage of technical manpower and modern technology.

3) Declining competitiveness, especially compared to countries with low labor costs. Since current wage rates in the textile industry are relatively high, they contribute to rising production costs;

4) Most factories have little or no R&D activities and lack testing facilities for basic quality control.

5) High dependency on imported raw materials such as high quality fabrics/ yarns.

6) The adoption of new technologies is still limited by high investment costs and changes in fashion (TDRI, 1992).

7) Small garment firms are heavily engaged in sub-contracting. These firms undertake the more highly skilled components of orders and the sub-contractors mostly household firms, undertake the less skilled work (TDRI, 1992).

8) Weaving has fewer firms than the garment component of the industry as it requires more capital and higher technology. Some firms with old semi-automatic and automatic looms produce for the highly protected domestic market and for the nearby countries while large weaving firms with modern machine

produce both for export and for the domestic market. There is a broad weaving

technology in Thailand, but it is concentrated in the labor intensive of available

technologies. Thailand is also competitive in weaving because of the wide range

of alternative technologies available and labor cost advantage (TDRI, 1992).

The Role of Textile Industry in Thailand

The impact of the textile industry on the Thai economy in terms of value-added,

employment, and export earnings is clearly evident from the following facts and figures

(TTIS Textile Digest, 2000):

1) The highest percentage of GDP contribution in the manufacturing sector 16% of

   total manufacturing value-added in 1998;

2) The highest employment rate in the manufacturing sector – 1.1 million employees

   or 24.7% of total industrial workforce in 1999.

3) A major source of export income 195,303.3 million bath or 8.8% of total export

   value in 1999.

Textile Garment Production and Export

Textile and garment production has grown rapidly with the expansion of both

domestic and export order. Thai textiles output is expected to continue to grow rapidly

over the next few years. Capacity, including the number of spindles, looms, and

synthetic fibres, is also likely to expand, given rapid investment growth.

Thai clothing and textile industries have become increasingly export-oriented

during the1990. In 1999, fiber export totaled 257,230.4 tons worth 8,248.8 million baht.

Of this amount, 242,395.9 tons were manmade fiber worth 7,350.9 million baht. The

figures for wools and cotton exports were 4,928.2 tons worth 805.9 million baht and 633

tons worth 16.9 million baht, respectively (TTIS Textile Digest, 2000).

The figures for yarn in 1999 were 235, 557.1 tons worth 16,921.6 million baht.

Of this amount, 192,430.3 tons were man-made yarns valued at 11,755.5 million baht and

worth 34,660.2 tons of cotton yarn worth 3,475.1 million baht.

Export of fabrics in 1999 totaled 167,632.9 tons worth 33,436.8 million baht,

comprising 106,795.5 tons of man-made fabrics worth 19,866.1 million baht, 49,945,1

tons of cotton fabrics worth 10,869.6 million baht, and 10,225.1 tons of knitted fabrics

worth 2,124 million baht (TTIS Textile Digest, 2000).

Thailand's clothing export in 1999 totaled 168,342.2 tons valued at 114,577.5

million baht, equivalent to 58.7% of total textile export value. Of this total, 68,591.1 tons

were clothing made of woven fabrics and 99,751.1 tons of knitted fabrics, value at

53,167.4 million baht and 61,410.1 million (TTIS Textile, Digest, 2000).

Government's Policy

Under the 7th and 8th National Economic and Social Development Plans (1992-

1996 and 1997-2001), guidelines for development policies generally related to the

industry   as following:

1) Improve international competitiveness such as increase productivity by applying

modern technology and machinery; upgrading skills and introducing modern

management techniques; moving into higher value added products; upgrading the

quality and standard products; promoting foreign investment; and encouraging Thai industries to invest abroad.

2) Relocating textile and clothing industry , especially small and medium scale enterprises, to rural areas;

3) Conserve the environment and natural resources by introducing new technology to save raw materials, water and energy;

4) Penetrate both traditional and new market by using more aggressive marketing strategy.

Figure 1: Structure of Textile Industries

CAPITAL INTENSIVE

MAN-MADE
FIBRE

SPINNING
INDUSTRY

WEAVING AND
KNITTING
INDUSTRY

GARMENT
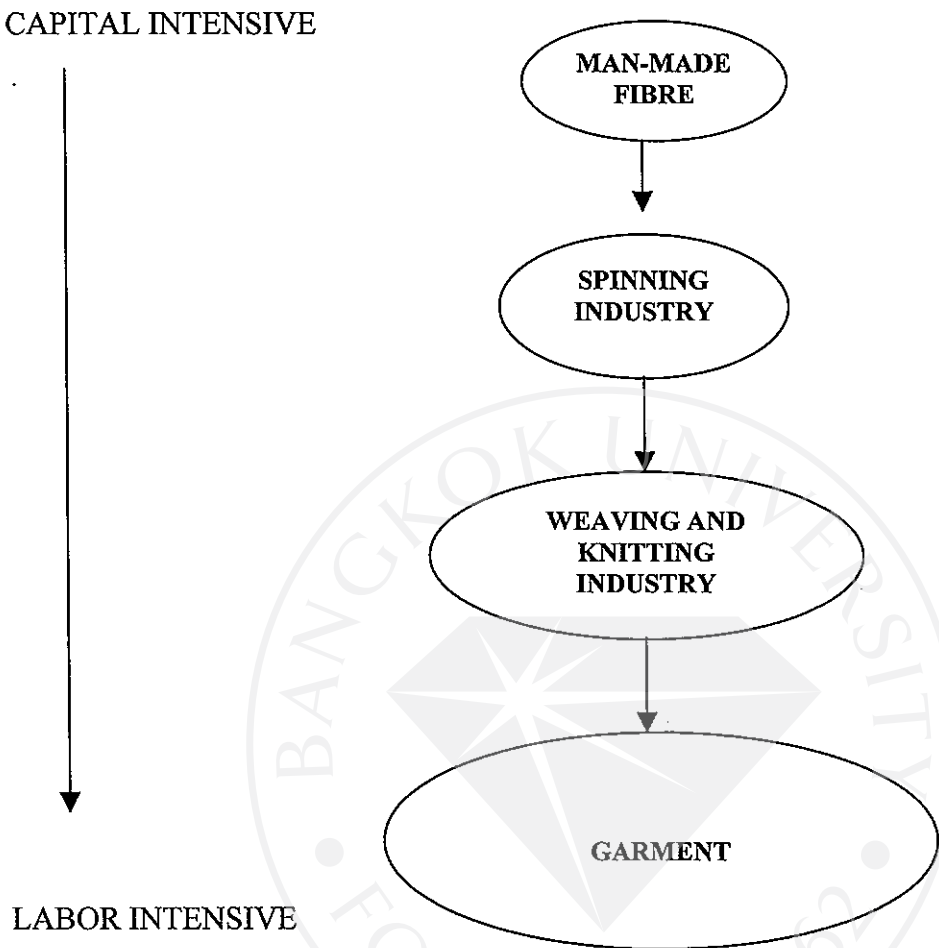
LABOR INTENSIVE

Source: *TTIS Textile Digest 2000.*

Newly Industrialized Economies (NIEs) in East Asia had experienced similar

structures when they were at the early stage of industrialization. The NIEs began with

the labor-intensive garments industry. Only when these countries became more

industrialized did they moved to textiles and then man-made fibre. Japan has now

reached the highest stage of development. Its main production is now man-made fibre

and it has also become a net importer of garments (Yamawaki, 1991). Anderson and

Park (1991) described that textile and garment industries in the Republic of Korea and Taiwan are going in the same direction.

The structure of the Thai industry is in line with the country's current stage of industrial development and resource endowments. Therefore, an imbalance within the industry as its structure may not provide an enough foundation for future development when Thailand reaches a highest level of industrialization. Government policy has to some extent influenced the structure of the industry.

In addition to tariff protection, the government has given various forms of assistance to both textile and garment industries. Textiles were among the first industry to promote under the Industrial Promotion Act of 1960. However, the promotion has been inconsistent.

Conceptual Framework and Theory

Due to the increasing importance of international trade, studies of organizational buying behavior have increased the significance of international marketing studies. Ghymn (1980); Garrett (1985); Habte-Glorgis (1986); and Deng (1987) have attempted to study the decision criteria used for evaluating and selecting of foreign suppliers by importers. This review will focus on the previous research of organizational buying behavior, emphasizing the impact of the buying center on organization buying decision, the selection criteria influencing importers' purchasing decisions for foreign suppliers, the impact of country of origin, the impact of product price and quality, the impact of risk, and the impact of government regulations. Finally, this research study will investigate Thai import companies' purchasing managers perceptions toward Japanese,

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the United States, and German exporters on both supplier and product characteristics in Thai textile industry.

Organizational Buyer Behavior

Importers buying behavior is considered one form of organizational buying behavior. Studies of organizational buying behavior indicate that the organizational buying process is very complex. Buying behavior is also different for different products, organizations, industries, and buying situations (Wind & Thomas, 1980).

Webster & Wind (1972) define organizational buying behavior as "the decision-making process by which formal organizations establish the need for purchased products and services, and identify, evaluate, and choose among alternative brands and suppliers (p.11)." They group the organizational buying behavior models into four major types: 1) task-oriented models, 2) nontask-oriented models, 3) decision process models, and 4) complex or general models. Task-oriented models focus only on one specific situation variable, such as price or total cost associated with a particular purchase, whereas non-task-oriented models focus on a set of variables that are primarily non-rational variables such as emotion, personal goals, and internal politics.

Moreover, they describe decision process models as organizations' decision-making processes as carried out by individuals who cause a complicated interaction between the differences in personal and organizational goals. Earlier, Webster (1965) presented a model of the organizational buying process which was based on a behavioral theory of the firm. The four stages of organizational buying processes were: 1) problem recognition, 2) assignment of buying authority and responsibility, 3) a search process for

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identifying product offerings and for establishing selection criteria, and 4) a choice

process for evaluation and selection of alternative suppliers. In the complex models,

Webster & Wind (1972) determined that

> " The need to purchase products or services, communications among
> those members of the organization who are involved in the purchase
> or will use the product or service, information-seeking activities, the
> evaluation of alternative purchasing actions, and the working out
> necessary arrangements with supplying organizations" (p.1).

With respect to the general model, they pointed out that organizational buying

behavior was influenced by four main classes of factors. They were individual, social,

organizational, and environmental.

Later, Sheth (1973) developed a model of industrial (organizational) buyer

behavior by using a stimulus-response approach. His model was based on three aspects

of organizational buyer behavior: 1) the psychological world of the organizational buying

process, 2) the conditions of joint decision-making, and 3) the process of joint decision-

making. The model was divided into four essential components:

Expectations of the individual involved in the decision: Sheth (1973) felt that

expectations were "the perceived potential of alternative suppliers and brands to satisfy a

number of explicit and implicit objectives in any particular buying decision (p.52)." The

explicit objectives or criteria include product quality, delivery time, after-sale service,

and price. The implicit criteria include reputation, size, location, reciprocity, relationship

with a supplier, and personality and the expertise of the sales representative. Besides the

expectations of decision-making, participants could be influenced by the functions of:

The background of individuals (e.g., education, experience); information sources and the

extent of the search (e.g., types and number of information sources); perceptual

distortion; and satisfaction with past purchases.

Organizational buying process: There were two types of variables that

determined whether a buying decision is joint or autonomous. The two variables are

product specific, and company specific factors. The product specific factors include the

perceived risk variables in buying decisions, the type and importance of the purchase,

and the time pressure. The company specific factors include company orientation (e.g.,

technology, production, or service oriented), company size, and degree of centralization.

Sheth (1973) found that joint decision making was likely in large, highly centralized

companies that were technology oriented.

The decision-making process: This is the of initiation of the decision to buy,

gathering of information, evaluation of alternative suppliers, and resolving conflict

among the decision-making participants. The most important aspect of this process is the

assimilation of information, deliberation on it, and the consequent conflict. Sheth (1973)

discussed four types of conflict that influenced the process of joint decision-making and

their methods of resolution. The first type of conflict was the disagreement on

expectations about suppliers or their brands. This can be resolved by searching for more

information and/or seeking out other suppliers. The second type of conflict was

disagreement among the parties on some specific criteria for evaluating a specific

supplier. This can be resolved through persuasion. The third type of conflict was the

fundamental differences in buying goals or objectives among various parties. This can be

resolved through a bargaining process. The fourth type of conflict was disagreement in

decision-making styles. This can be resolved by politicking and back-stabbing tactics. In

conclusion, the first two types of conflicts—the disagreement on expectations about suppliers or their brands, and the disagreement among the parties on some specific criteria for evaluating a specific supplier can build a healthy organization but it is time consuming, whereas the last two types of conflicts—the fundamental differences in buying goals or objectives among various parties, and the disagreement in decision-making styles can make the organization suffer because both bargaining and politicking resolution are nonrational and inefficient methods.

Situational factors: Situational factors were considered as influential on supplier choices. They include temporary economic conditions, such as price controls, recession, internal strikes, foreign trade walkouts, machine breakdowns, and other related events; organization changes such as mergers or acquisitions; and ad hoc changes in the marketplace such as promotional efforts, introduction of a new product, and price changes in supplier industries. Sheth's model can be shown as below:

Figure 2

Sheth (1973)'s Model of Industrial Buyer Behavior
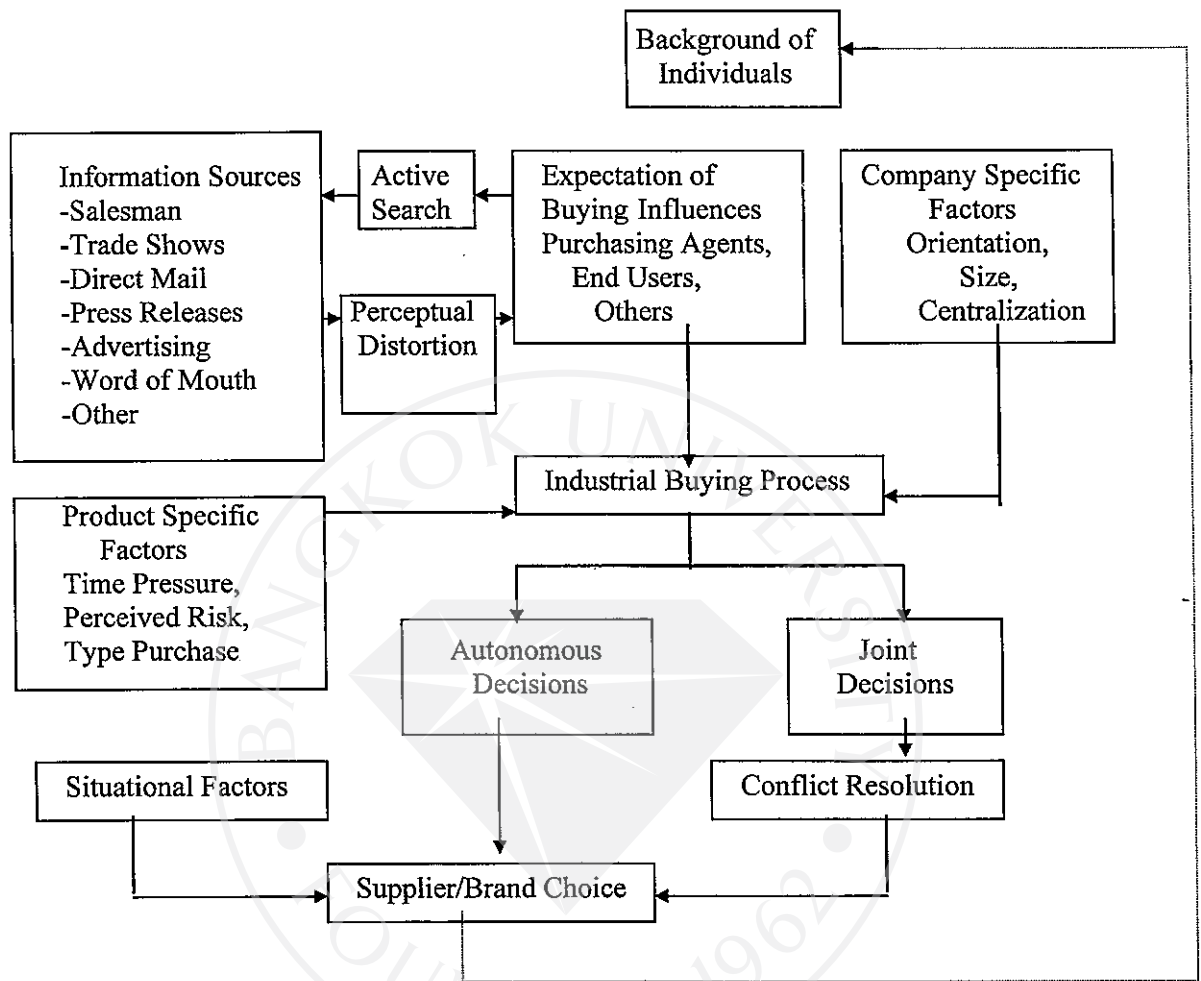
Source: *A Model of Industrial Buyer Behavior by Sheth (1973), Journal of Marketing,37.*

In the last decade, Samli, Grewal & Mathur (1988) proposed an integrative model

of international industrial buyer behavior. The model has four distinct features. First, it

used an input-output format. The inputs in this model indicated the buying unit's need

and motivation to buy which is influenced by the following six factors:

Individual factors: Persons are brought up in different environments, where

different beliefs, values, and norms exist. Culture influences many of these factors

(Plummer, 1977; Wind, Douglas, & Perlmutter, 1973). The differences in culture and individual thinking result in the difference in individuals' perceptions that lead to different judgments. Individuals in the buying unit always conform to different values and needs in their work (Lee, 1966). Moreover, there are many individual factors that affect international buying processes such as interpersonal skills, leadership skills, level of education, and past experiences.

Environment factors: These can affect the buying decision in four ways: economic conditions of the countries—a boom, or recession; demand and supply of inputs and outputs; type of market—perfectly competitive, monopolisitc, or oligopolistic; and the availability of information—good communication systems to collect data, assimilate it, analyze it, and incorporate it in buying decisions (Samli, 1968).

Organizational factors: "Organizational buying behavior is motivated and directed by the organization's goals and is constrained by its financial, technological, and human resources (Webster & Wind, 1972, p.14)." Not only can the organization's goals influence the buying unit, but they can also influence individual goals, attitudes, assumptions, and behaviors. The level of centralization in an organization affects a decision to be joint or autonomous. Finally, a company's type of operations, and the organization's norms and culture also affect the buying decision unit.

Societal/Cultural factors: Rick (1983) said that failure to understand cultural differences has led to many business blunders in international markets. There are four important classes of international factors that affect the characteristics of international buyer behavior. They are differences in the nations' beliefs and values, different

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attitudes toward life, different family patterns, and varied business practices in different

countries.

Uncertainty factors: There are four uncertainty factors that affect the

organization buying decision. They are time pressure (time constraints to deliver the

goods in order to satisfy production schedules and other business needs); perceived risk

of the purchase; the type of purchase—a first time buy, modified rebuy, or a rebuy

(Robinson, Faris, & Wind, 1967); and the value of the purchase. When dealing with a

high value, high risk, and first time purchase, the buying unit needs to proceed carefully.

As Spekman & Stern (1979) stated, "the greater the uncertainty and the concomitant need

for greater information, the more likely it is that role prescription will be relaxed and

joint participation in decision making will be emphasized (p.60)."

Government and regulatory factors: Governments and their regulations have

played an important role in the international market. There are many factors involved in

governments and their regulations such as the ideology and policies of the country—

capitalistic, socialistic, communistic, mixed economy, or dictatorships; legal constraints;

trade restrictions in the form of tariffs and barriers; subsidiaries and tax incentives; the

politics of the country; the bureaucracy levels of the country; the level of economic

development of a country; the availability of foreign exchanges; and the stability of the

government. Finally, the degree of the nation's development (Less Developed

Countries—LDC's eastern or western bloc countries or Newly Industrial Countries--

NIC's) has a significant affect on the buying units.

The following figure shows the six groups of factors as outlined by Samli,

Grewal, & Mathur (1988):

Figure 3

A Model of International Industrial Buying Behavior by Samli, Grewal & Mathur (1988)

Individual Factors
1. background
2. self perception
3. leadership skills
4. educational skills
5. interpersonal skills
6. language
7. past experience

Environmental Factors
1. economic conditions
2. demand/supply of input and output
3. type of market
4. availability of information

Organizational Factors
1. goals and objectives
2. level of centralization
3. performance trend
4. competitive advantage
5. type of operation
6. organization climate

Identification of need

Motivation to buy

Satisfaction

Outcomes

Buying Decision

Buying Behavio

Uncertainty Factors
1. time pressure
2. perceived risk
3. type of purchase
4. value of purchase

Societal/Cultural Factors
1. beliefs
2. attitudes
3. family patterns
4. business practices

Government and Regulatory Factors
1. ideology and policy
2. legal constraints
3. trade restrictions (tariffs, barriers, etc.)
4. subsidies and tax benefits
5. policies
6. bureaucracy level
7. level of economic development
8. constraints in terms of foreign exchange
9. stability of government

Source: *International Industrial Buyer Behavior: An Exploration and a Proposed Model by Samli, Grewal, & Mathur (1988), Academy of Marketing Science, 16.*

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All six international influencing factors can help or hurt the buying unit assess

and choose the possible and optimal options if the information is accurate, quantifiable,

verifiable, accessible, free from bias, comprehensive, appropriate, clear, precise, and

timely. This information can reduce the level of uncertainty for making the decision.

First, the output represented by the buying unit's decision is influenced by the motivation

and satisfaction of the individuals in involved in the buying unit. Second, the buying

decision leads to certain outcomes, which might be of extrinsic or intrinsic value. The

extrinsic outcomes received by the buying unit are pay raises, bonuses, promotion and

recognition whereas intrinsic outcomes are those given by individuals to themselves

(Petrock & Gamboa, 1976). If the buying unit perceives the outcomes to be equitable,

these would increase their satisfaction level. Then, it would affect the motivation level of

the buying unit members (Porter & Lawler, 1968). Because the strength of motivation at

the international level could precede identification of needs. Then, needs lead to

purchase. The buying unit has to respond to the organization's needs. Nevertheless,

there may be conflicts among the various members within the buying unit regarding a

particular purchase. These conflicts can be resolved through negotiation. The

negotiation process is affected by social influences, relationships among members, level

of authority/status, information, leadership, image, and individual values. Then, the

members of the buying unit attempt to reach consensus. If they cannot reach consensus,

they should search for more information or forward the problem to a higher authority to

solve the conflicts and facilitate the buying decision (Negandhi, 1978).

Third, Samli, Grewal & Mathur (1988) specified multi-attribute perspective

through which a multiplicity of factors influence international industrial buyer behavior.

Fourth, Samli, Grewal & Mathur (1988) discussed the differences between domestic buying processes and international industrial buying processes focusing on a multitude of different influencing factors. Samli, Grewal & Mathur (1988) also present the international industrial buying process and the internal workings of the buying unit. They specify that buying units in international situations vary substantially with regards to size, versatility, diversification, group behavior, and synergism (Samli, Grewal, & Mathur, 1988).

Supplier Decision Criteria

Wind, Green, & Robinson (1968) investigated ten important vendor performance characteristics used by purchasing agents in making selection decision such as quality/price ratio of the product, delivery reliability, technical ability and knowledge, supply of information and market-services, general reputation, geographical location, technical innovativeness, extent of previous contact with the buyer, importance as a client, and extent of "personal benefits" supplied to the buyer.

These researchers examined the importance level of these ten vendor performance characteristics as seen by 20 purchasing agents. The results indicated that the most important vendor characteristics are product quality, then followed by product price, and delivery reliability. Later, Banville & Dornoff (1973) studied decision criteria used by industrial purchasing executives in selecting their suppliers. Their research objective was to determine the importance of twelve source selection criteria and the effect of company size and product types on the perceived importance of these criteria. These twelve criteria were classified into two groups:

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- First, the economic criteria included service, quality, ability of the supplier to stand behind the product, low price, supplier reputation of fair dealing, newness of supplier, supplier credit, and reciprocity.

- Second, the non-economic criteria included friendship with the supplier, salesperson's personality, prestige of dealing with the supplier, and the improvement of a buyer's status within his/her company.

Banville & Dornoff (1973) studied from six southeastern states to rank the criteria influencing their purchase of different building material products. The research findings showed that respondents considered the product price as the most important selection criteria whereas reciprocity and the improvement of a buyer's status with his/her company were the least important criteria. However, the respondents assigned different levels of importance to decision criteria when searching and selecting a source of supply for various products. The respondent's firm size had no affect on the importance ranking of the selection criteria.

Similarly, Lehmann & O'Shaughnessy (1974) extended Banville & Dornoff's research study (1973) by investigating industrial buyers' importance evaluations of 17 attributes for four different types of industrial products. The following are the vendor attributes: (overall reputation of the supplier, financing terms, supplier's flexibility in adjusting to the company's needs, experience with supplier in an analogous situation, technical services offered, confidence in the salesman, convenience of placing order, data on reliability of the product, price, technical specifications, ease of operation or use, preferences of principal user of the product, training offered by the supplier, training time

required, reliability of delivery, ease of maintenance, and sale service expected after the date of purchase).

The four types of industrial products were routine-order products, procedural-problem products, performance-problem products, and political-problem products. The results showed 6 of 17 attributes which varied significantly across the four product types. These six attributes were financing, technical service, price, training offered, training required, and reliability of delivery. They found that both American and British purchasing agents assigned similar ratings to these attributes except for the service orientation. British purchasing agents appeared to be more service oriented.

Kiser, Rao, & Rao (1975) examined supplier attributes as the criteria for evaluating and selecting vendors by buying center members. In this study, there were 65 attributes examined in selecting suppliers for standard products and for special products. These 65 attributes were grouped into six broad categories as follows such as convenience-related attributes, economic financial attributes, caliber-capacity attributes (quality, technical ability, and capacity, image-dependability attributes, inter-corporate relation attributes (experience with supplier), and service related attributes. As a result, the research findings showed that both standard and special products were similar relative to the perceived importance of each attribute. The most important attributes categories for both standard and special products were image-dependability, followed by caliber-capacity, and convenience related attributes respectively.

Jackson, Burdick, & Keith (1985) studied the effect of different purchasing situations on industrial buyers' evaluations of the importance of various components of supplier's marketing mix—product, price, place, and promotion. Table 3 shows the 5

product types, 3 buyclass situations, and 4 marketing mix components in this study

finding.

Table 3

The Effect of Different Purchasing Situations by Jackson, Burdick, & Keith (1985)

Product Types	Buyclass Situations	Marketing Mix Components
1. Major capital equipment	1. New buy	1. Supplier's product efforts
2. Minor capital equipment	2. Modified rebuy	2. Supplier's price
3. Materials	3. Straight rebuy	3. Supplier's distribution efforts
4. Component parts		4. Supplier's promotion efforts
5. Supplies		

Source: *Chandprapalert (2002). "The Thai Buyer's Selection Criteria toward Industrial Machinery Product from Japan, Germany, and United States: An Investigation on Thai Textile Company".*

The findings showed that the supplier's product efforts were the most important

criteria for modified rebuy situations among these three buy class situations. In addition,

supplier's product efforts were considered to be most important in the purchase of major

capital equipment, and the second most important in the purchase of minor capital

equipment. Finally, the respondents perceived the supplier's promotion efforts as the

least important components among those four marketing mix components.

Similarly, Lehman & O'Shaughnessy (1982) investigated the decision criteria

used in buying different categories of products. In this study, eight product attribute

categories were based on four dimensions—standardization (standard vs. nonstandard

products), makeup (simple vs. complex products), application (standard vs. novel

products), and dollar commitment (low vs. high price products). The researchers found if

the products became less standard, economic criteria would decrease in importance while

performance criteria would increase in importance. Moreover, adaptive criteria were

important for all product attribute categories, except the simple standard products. In general, buying style and the purchasing manager's background did not have any effects on his/her rating of the choice criteria.

Standard criteria such as quality, price, and delivery are significantly important criteria to be used for evaluating and the selection of suppliers, but they are not sufficient for considerations to select the best alternative supplier choice. This emphasizes the importance of the relationship between the buyers and sellers as a supplier's selection criteria, especially in international industrial markets. Ford (1984) for instance, studied the relationship between industrial buyers' assessments of suppliers' technical and commercial skills and their assessments of the suppliers on other dimensions including the commitment of the suppliers, the adaptability of the suppliers, the personal feeling distance from buyers to suppliers, and the conflict between buyers and suppliers. Ford concluded that the buyers' assessments of the technical and commercial skills of their suppliers were strongly influenced by the suppliers' perceived commitment, distance-reducing ability, adaptability, and conflict management. To be more competitive suppliers should provide a good long-term relationship with their buyers through offering value-added service, technology gains, process innovations, and other means of gaining differential advantage. As Jackson (1985) said, the long-term relationship between buyers and sellers could reduce risk, save switching costs, and improve services. Moreover, Cateora (1990) found that there were many subjective exporter characteristics influencing organizational buyers' decisions. He suggested that U.S. exporters had to learn more about the impact of culture on their relationships with foreign buyers. Likewise, Hawrysh & Zaichkowsky (1990) examined how culture and national

characteristics were reflected in various bargaining and negotiation procedure

characteristics of American and Japanese businesspersons. The results suggested that

Korean importers would prefer to buy from exporters in a similar culture, such as

Japanese exporters rather than from American exporters.

In conclusion, all the above studies indicate that industrial buyers generally use

various criteria to evaluate and select supplier choices by focusing on price, quality, and

service (Lehmann & O'Shaughnessy, 1974; Webster, 1979). In terms of suppliers

characteristics, there are both objective (value-added service, technological gains, etc.)

and subjective (reputation, marketing practices, negotiation procedures, and interpersonal

relationships) of characteristics that are considered as important criteria to in evaluating

and selecting suppliers. In addition, Jefri (1989) stated that the decision criteria in

industrial buying settings vary with the following three classes of variables: 1) individual

characteristics including educational background, decision-making style, and experience;

2) situational characteristics including buyclass, product type, and importance of the

purchase; 3) organizational characteristics including size, orientation, and type of

industry. However, to select capable suppliers is one of the most important task for a

purchasing manager because choosing the right suppliers for the companies leads to

purchasing goals such as competitive price, good quality, service, and on-time delivery

(Dobler, Lee, & Burt, 1984). Also, the industrial purchasing manager should realize that

other variables influence perceptions toward foreign suppliers such as the impact of

country-of-origin, the impact of culture, the impact of loyalty, the impact of risk and so

on.

To expand the view of organizational buying behavior, we need to understand the individual psychological processes involved in perception. One important aspect of an individual's psychology is their stereotypes, because generally they can be psychological barriers in international trade (White, 1979). The stereotypical image may be of a country's products, specific brands, or whatever the consumer deems appropriate about the groups. This tendency to group products or rely on stereotypical images has important implications for the competitive strength of a product. There is a lot of evidence that people in one country tend to have common notions about people in other countries, and also that these stereotypical evaluations carry over into the realm of product evaluations. Better understanding of these attitudes would be helpful in developing more effective marketing strategies for exporting products to other countries.

Relating to international studies of organizational purchasing behavior, Nagashima (1970) indicated that businesspeople develop general stereotypes of both industrial and consumer products. These stereotypes lead to preferences for purchasing specific products from specific countries. These stereotypes are created by many factors such as representative products, national characteristics, economic and political background, history, and traditions. This suggests that country of origin is naturally affected by the familiarity and availability of the country's product and the stereotype of that country. Some representative products from a country can influence all of its total products' image.

Impact of Country of Origin

One influence on the perception of subjective exporter characteristics is the exporter's national location. A number of studies by Reierson, 1966; Nagashima, 1970; White, 1979; Morello, 1984; and Johansson, 1985 which might be characterized as "county of origin" or "made in" studies, have explored the impact of national location on organizational importer's evaluations of exporters and their products. Many research studies of the "made in" concept can be classified into two groups: 1) the studies of consumers' perceptions toward a specific country's products (Bilkey & Nes, 1982, and Cordell,1992), and 2) the studies focusing on organization buyers' perceptions of products manufactured in a specific country (Nagashima, 1970, 1977; Cattin, Jolibert & Lohnes, 1982; Keown, 1985, Cavusgil & Yavas, 1987, Vernon-Wortzel, Wortzel & Deng, 1988; and McGuinness, Campbell & Leontiades, 1991).

Due to the fact that the present research study focuses on importers' perceptions toward exporters, the studies of organization buyers' perceptions was reviewed in the previous section. White & Cundiff (1978) investigated now product price and country of manufacture influenced the industrial buyers' perceptions of product quality. To examine the industrial buyers' purchasing decisions, they selected three specific products such as an industrial lift truck, metal working machine tool, and a dictation system. The results showed that there was a highly significant relationship between country of manufacture and perceived quality. But there was a less, but still significant relationship between price and perceived quality and the interaction between price and country of manufacture. They also suggested that manufacturers of products from certain countries

were affected by a built-in positive or negative stereotype regarding perceptions of product quality.

Moreover, other researchers conducted studies of perception of country-of-origin by industrial buyers and channel intermediaries including importers. For example, Cattin, Jolibert & Lohnes (1982) examined the perceptions of American and French industrial buyers by evaluating industrial products made in England, France, West Germany, Japan, and the United States. They found that both American and French buyers favor West German products. For Japanese products, French purchasing managers perceived them less favorably. They considered Japanese products as unreliable and using obsolete technology, while English products were perceived as luxurious and inventive products. These researchers concluded that country-of-origin played an important role in the perception process of purchasing managers, particularly in the assessment of the quality of the products. Yavas, Cavusgil & Tuncalp (1987) also have pointed out that country-of-origin effects were a significant factor in dealing with importers. These researchers found that Saudi importers were influenced by country-of-origin bias on the evaluation of foreign suppliers, while individual consumers were not influenced by country-of-origin bias.

Increased exposure of country-of-origin information can also change the criteria used in a buying process (Nagashima, 1977). In other words, the location of the production site can play a significant role in product and strategic decision making. Many studies indicate that a buyer's perception of foreign countries can affect evaluations of foreign products (Schooler, 1971; Gaedeke, 1973; and Niffenegger, White & Marmet, 1982). White (1979), for instance, stated that "perception is one of the most

important individual psychological processes used in exercising purchasing responsibilities (p.83)." His research findings showed that perception can be affected by availability and familiarity of products as well as the country stereotype. Moreover, country stereotype also plays a significant role in supplier selections of industrial buyers (White, 1979).

There are two broad categories of products that were studied in term of country-of-origin concepts. One is consumer products, and another one is industrial products. Again, one of the research purposes here is to investigate the importers' perceptions toward industrial product exporters. Therefore, the literature of country-of-origin concepts for products are reviewed.

Bilkey & Nes (1982) stated that country of origin had a considerable influence on quality perceptions of a product. They also found that country of origin cues were biased against products sourced in less developed countries. Similarly, Gaedeke (1973) found that U.S. made products were perceived as being of higher quality than products made in various less developed countries. Due to a hierarchy of biases, there was a positive relationship between product evaluations and degree of economic development (Krishnakumar, 1974; Schooler, 1971; Tongberg, 1972; Wang, 1978; and Hampton, 1977). Products from developing countries were rated as being inferior to those from industrialized countries by Schooler, 1971; Tongberg, 1972; Wang & Lamb, 1983; and Hampton, 1977. There were several other country characteristics that have caused hierarchy biases such as cultural, and political systems (Wang & Lamb, 1983) and the country's belief system (Tongberg, 1972).

However, products made in more developed countries were not all evaluated

equally (Banninster & Saunders, 1978; Darling, undated; Donoff, Tankersley & White,

1974; Hampton, 1977; Kincaid, 1970; Lillis & Narayana, 1974; Nagashima, 1970, 1977;

Krishnakumar, 1974; Reierson, 1966; Schoole, 1971; Schooler & Wildt, 1968; Tongberg,

1972; Wang, 1978; White, 1979; White & Cundiffm 1978; and Yaprak 1978).

Consumers do not perceive all foreign products or all products from a given country as

being the same. Etzel & Walker (1974) for instance, found that there was a significant

difference between general country attitudes and specific product attitudes by country of

origin.

Nevertheless, the impact of country of origin on the evaluation of product

attributes is only one of several factors, which influence the selection of exporters by

importers. The other variables were product price and quality.

Impact of Price and Quality

As one would expect, price is one of the important variables that affects buying

decisions (Shipley, 1985). Traditionally, the normative view of the organizational buyer

has made an assessment of product quality independently of the price. The reasoning is

that they select a product of acceptable quality with the lowest price (Lee & Dobler,

1971). However, industrial buyers are influenced in their evaluation of product quality

by information about product price also. The results from many studies on the effect of

the relationship between price and perceived quality indicated that consumers' sometimes

use price as an indicator of quality (Monore & Dodds, 1988).

As Alpert (1971) noted, one obvious implication of the research on price/quality relationships is that it is important to identify those market segments for which price/quality relationships were strong. This information could be used to develop an appropriate marketing mix to reach such market segments effectively. Engel, Kollat & Blackwell (1973) found that price was an indication of quality within certain upper and lower limits. Monroe (1973) also found that the price-quality relationship was mixed. There was an indication that a positive relationship existed, at least over some range of prices for some product categories. Similarly, White (1979) found that product quality was considered a key product attribute influencing buyers' decisions. He also found that the industrial products from France, England, and the United States were comparable. West German industrial products, on the other hand, were found to be of higher quality than the other three countries' products while industrial products from Italy were seen as having lower quality than those three countries.

The impact of price information on importer perceptions of quality has been studied rather extensively because there was no clear picture to indicate unequivocally whether a positive price and quality relationship existed, particularly in cases where other information cues were provided to the importer (Monore, 1973; Monore & Dodds, 1988). In judging product quality based on other information cues such as product attributes, an individual's inclination to rely on price as an indicator of quality naturally should tend to decrease. Since importers exhibit different degrees of familiarity with products produced in different countries, their confidence in the ability of different countries to design or produce quality products also differs. One can also expect that the use of price as an indicator of quality may also differ for different countries' products.

Impact of the Loyalty Concept

Brand or consumer loyalty is the concepts in consumer behavior that explain the impact of the importer perceptions and attitudes toward favorable countries, and the buying decision process. In selecting products, consumers may decide to choose the same product to satisfy their needs. The same behavior occurs in the process of choosing an industrial product or supplier (Wind, 1970). Therefore, understanding how individuals reach their buying decisions can help industrial marketers develop suitable marketing strategies. Loyalty usually occurs when customers or industrial buyers gain experience and confidence in the products or services. It has been regarded as a statistic summarizing the results of a sequence of purchasing decisions (Cunningham, 1956). However, it is not just a matter of reducing price or changing product features. According to Reichheld (1993), loyalty could be earned by consistently delivering superior value. It can also be classified into: a) brand or consumer loyalty, and b) industrial source loyalty.

Brand (or consumer) loyalty has been used to explain consumer behavior in making a repeat purchase (Cunningham 1956, 1996; Lipstein, 1959; and Massy, 1966). Wind (1970) studied industrial source loyalty by directly applying the concept of loyalty to industrial buyer behavior. He found that source loyalty was based mostly on four sets of variables. They were: 1) the "traditional" task variables (price, quality, delivery, quantity, and service, 2) the buyer's past experience, 3) the organizational variables, and 4) work simplification variables. He also examined the purchase of electronic components and the various factors influencing source loyalty and concluded that there was "substantial evidence for the existence of source loyalty...(p. 454)." By studying the

effect of loyalty on buying decision outcomes, Bubb & Rest (1973) concluded that loyalty is not just a summary of decision outcomes. It was also one of the major determinants in industrial buying decisions. Puto, Patton & King (1985) also found the existence of industrial source loyalty and Morris & Holman (1988) noted that industrial source loyalty tended to take more time to develop than consumer loyalty. However, the relationship between source and buyer could not be easily dissolved.

In attempting to explain the details of the country-of-origin effects, Johansson (1989) proposed the new model of the country-of-origin effects and coined the term country loyalty. As consumers gain more experience and confidence with a specific product from a specific country, they might develop a county loyalty. For example, Italian shoes, German beer, and Japanese automobiles are good representations of country loyalty.

Impact of Government and Regulations

The governments and their trade regulations play an important role in international markets. Governments in many countries distort trade and welfare arrangements to gain economic and political advantages or benefits. There are a number of government variables involved in trade such as the ideology and policies of the country, legal constraints, trade restrictions, subsidies and tax incentives, the politics of the country, bureaucracy level of country, the level of economic development, the availability of foreign exchange, and the stability of the governments. These variables have an influence on organizational buying decisions (Samli, Grewal, & Mathur, 1988). For example, legal constraints could inhibit buyers from purchasing from certain nations.

Moreover, a government can use a combination of tariff and non-tariff methods as trade restrictions to protect their domestic industries against foreign firms. A government can also reduce the amount of imports by imposing a high tariff rate that makes it more difficult for the importer to profit. An alternative method of restricting imports is nontariff trade barriers. Onkvisit, Shaw, & John (1988) pointed out that there are six major categories of non-tariff trade barriers:

1. Government participation in trade can range from simple guidance to state trading subsidies.

2. Customs and entry procedure barriers involve classification, valuation, inspection, documentation, license, and health and safety regulations.

3. Product requirements may apply to product standards, testing, specifications, and packaging, labeling, and marking.

4. Quotas, also known as quantitative controls, can be absolute, tariff, or voluntary.

5. Financial regulations can take the form of exchange controls, multiple exchange rates, prior import deposits, credit restrictions, and profit remittance restrictions.

6. There are various market-reserve policies and performance requirements.

Research Hypotheses

Based on the organizational buying behavior theories of Wind & Webster (1972), Sheth's (1973) idea on the industrial buyer behavior, and an integrative model of international industrial buyer behavior proposed by Samli, Grewal & Mathur (1988); the following integrates these three concepts into the conceptual framework for this study.

Figure 4

Importer Buying Behavior Process
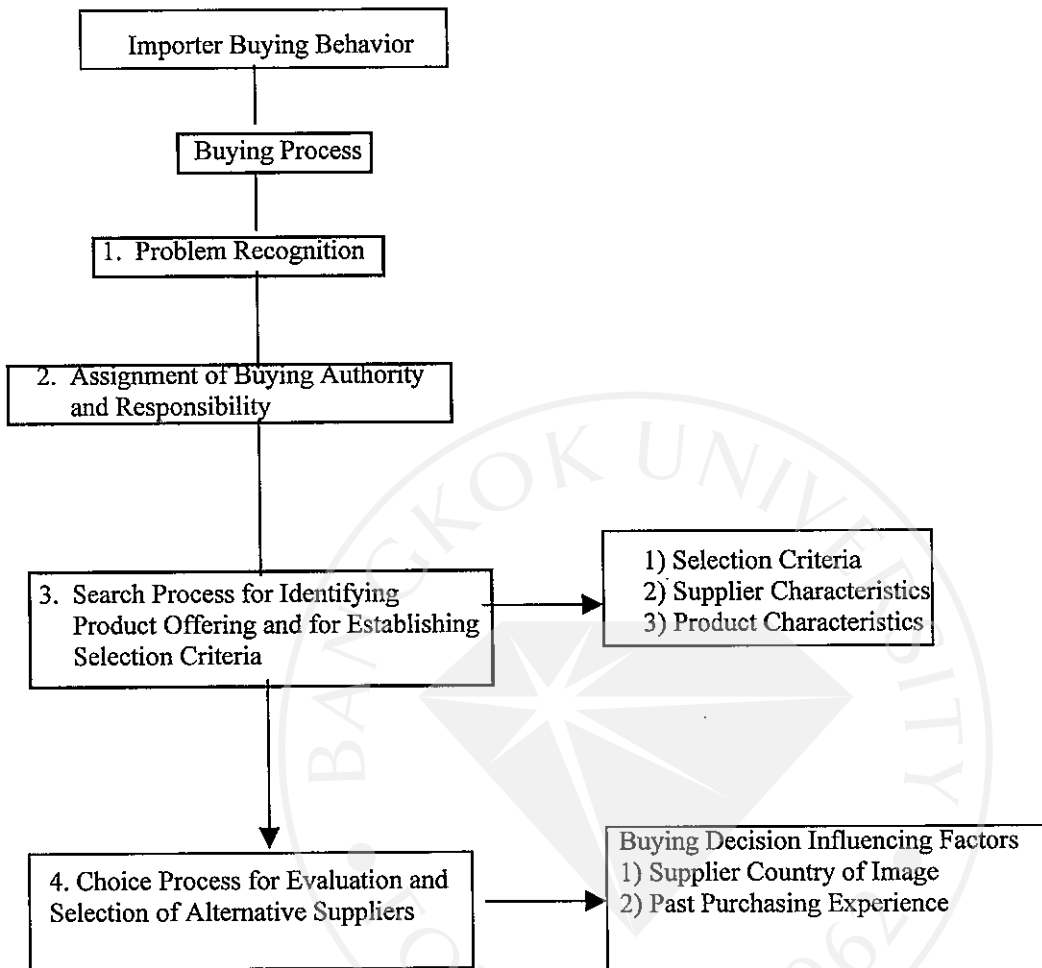
Source: *Chandprapalert (2002). "The Thai Buyer's Selection Criteria toward Industrial Machinery Product from Japan, Germany, and United States: An Investigation on Thai Textile Company".*

The model depicts the importer buying behavior of evaluating and selecting the best alternative suppliers. The model shows the organization buying process and the impacts of each stage which can be explained as follows:

- First stage, problem recognition is the need to purchase products or services.

- Second stage, assignment of buying authority and responsibility occurs.

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- Third stage, the search process begins to identify product offerings and for establishing selection criteria, this involves both selection criteria and information sources. In the present research study, the focus is only on the selection criteria of suppliers and product characteristics as the determinants of importer's selection decisions.

- Fourth stage, the choice process for evaluation and selection of alternative suppliers is influenced by six major factors. They are individual, organizational, social, environmental, uncertainty, and government factors. The present study emphasizes individual factors that influence the individual's perceptions, particularly stereotypes and purchasing experience related to loyalty concepts.

The preceding research empirically investigated the various supplier selection factors as presented. The present research examines who participates in the purchasing process and decisions, what are the important criteria for evaluating and selecting the suppliers, and how individual factors influence the organizational buying decision. The following paragraphs talk about each of the research hypotheses with a brief explanation for each area of interest.

Section One: Buying Decision Influencing Factors

There are six major factors influencing organizational buying behavior. They are individual factors, environmental factors, organizational factors, societal/cultural factors, uncertainty factors, and government and regulatory factors (Samli, Grewal & Mathur, 1988). The present research study will focus only on individual factors which involve perceptions (stereotypes), and purchasing experience (loyalty concept).

Stereotypical images can be affected by the individual's perception of country-of-origin information (White, 1979). Johansson & Thorelli (1984) studied the effects of country stereotypes on product positioning in the perceptual space. He found that country-of-origin images or stereotypes have influenced buyers on product evaluation. Khanna (1986) also investigated the country-of-origin image with two sampling groups. The first sampling group was compound of chief executives from 93 companies located in four markets—Thailand, Singapore, the Philippines, and Japan. The second sampling group was compound of top managers responsible for international/export operations of 140 Indian business firms. One of Khanna's (1986) hypotheses found that "the country-of-origin image is not so important in the buyer evaluation process when import firms are making import decisions (p.32)." His research suggested that 87 percent of the importers felt that the country-of-origin export image was a very important factor while dealing with new companies but not so important while dealing with old companies. Because of the importance of country-of-origin stereotypes, the following hypothesis will be examined:

> H_1: There is a significant difference between country-of-origin stereotypes
>
> and the selection decision of a foreign supplier by Thai importer
>
> purchasing managers/members.

Besides, the impact of country-of-origin stereotypes of Thai importer purchasing manger/member's perceptions, loyalty effects have influenced supplier selection. Bubb & Rest (1973) make the point that loyalty is one of the major determinants in industrial buying decisions. Some industrial marketing executives regard loyalty as affecting the current solution (Sunday Time, 1972). Based on these statements, the following

hypothesis are formulated to test the importance of loyalty concepts on Thai importer buying decisions:

H_2: There is a significant difference between the past purchasing experiences of Thai importer purchasing manager/member's and selection decisions of foreign suppliers.

Section Two: Selection Criteria

Due to the complexity of foreign supplier selection, there are many factors that have influenced foreign supplier selection decisions. However, to large of a number of criteria can cause complications and make it difficult for decision makers to reach decisions. As Miller (1956) noted "most decision makers cannot simultaneously handle more than seven to nine factors when making a decision (p.84)." Thus, this study considers the most important decision making criteria to examine Thai import company buyer behavior.

The literature review suggested many selection criteria that are used for decision making across different product categories, or buying situations. Hence, general themes of foreign supplier selection criteria for industrial products were investigated, regardless of differences in product categories and buying situations. Lehman & O'Shaughnessy (1982) stated that the key factors influencing supplier selection decisions were price, quality, delivery, and service. Later, Deng & Garrett (1985) found that product quality, price, and delivery performance were the most important criteria in foreign supplier sourcing decisions. Besides, the consideration of the important selection criteria of price, quality, delivery, and service; supplier characteristics are also important factors in an

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industrial commodity market. Hokey (1994) indicated that the supplier's ability to provide the necessary technical assistance must be factored into the international supplier selection decision. Therefore, this research hypothesis will only test the most important selection criteria:

H_3: There is a significant difference between selection criteria and a purchasing decision of buying textile machinery products by Thai import companies.

In addition, this research study will investigate Thai import purchasing managers' perceptions of both supplier and product characteristics from Japan, the United States, and Germany. These three countries are considered major industrial exporters to Thailand. Based on this fact, the researcher is interested in examining how Thai import purchasing managers select to purchase the product from these three exporters regarding both supplier and product characteristics using the following:

H_4: There is a significant difference between supplier characteristics among Japanese, the United States, and German and purchasing decision.

H_5: There is a significant difference between product characteristics among Japanese, the United States, and purchasing decision.

CHAPTER THREE: METHODOLOGY

The integration of three industrial buying behavior concepts; one by Webster & Wind (1972), one by Sheth (1973), and one by Samli, Grewal & Mathur (1988) are the main conceptual frameworkS used to develop importer buyer behavior models and research hypotheses for this study. The main purpose of the research hypotheses is to investigate how Thai import purchasing managers' perceptions affect the selection of foreign suppliers among Japanese, the United States, and German exporters on textile industrial machinery products in Thailand. The survey method is used in this research study.

The methodology section includes the research design, the research procedures, and data processing and analysis techniques. The research design section includes sampling procedures, and size, development of the survey research instrument, data collection analysis procedures. The data processing and analysis section discussed statistical techniques to be used in the study. All these processes are detailed here in chapter three.

Research Design

The research design section includes sampling procedures and size, the development of the data collection approaches, the development of the survey instrument, and a discussion of the procedures. The data processing and analysis section discusses statistical techniques to be used in the study. All are detailed as follow:

<u>Population and Sampling Procedures</u>

Like most of the international business field, most studies in this field use a cross-sectional in procedure. However, this study uses primary data based on the survey result. The population of this study, therefore, was textile company operating in Thailand. The sampling frame used to select respondents for this research was obtained from two directories. The names and addresses of the textile company in Thailand were obtained from these directories. The 2001 edition of the "Thailand Textile Institute" (THTI) and the "Directory of Thai Industry and Business 2001 was used. When this research began, the 2001 sample frame was the most current information available. The Thailand Textile Institute (THTI) listed the company addresses and telephone numbers in Thailand for each of the firms in textile business. This was supplemented by the Directory of Textile Firms Operating in Thailand (Ministry of Commerce).

Management level positions (purchasing managers and above), who were involved in the purchasing decision-making, were selected as the respondents to represent the sampled textile companies. The actual respondents would be the persons who most frequently interacted with the suppliers. In this case, the purchasing managers, who worked in purchasing department, and above including, directors of international operations, general managers, managing directors, board of directors, vice-presidents, presidents, and CEO's were, therefore, determined to be the most likely persons within the organization to have contact with the parent firms. This is in line with the work of John (1984), who makes a strong case for selecting knowledgeable respondents. The choice of this rather exclusive respondent group is based on the belief that people in these

sensitive positions are the most cognizant about global investment projects and the dynamics of the overall foreign entry decision process (Kim & Hwang, 1992).

For selecting the respondents from the sample frame, systematic random sampling technique was used to reduce and to increase generalizabilities of the research results. Each of the 2,500 textile companies listed in the sample frame was numbered, a random and then every 3rd name was selected to be included in the sample. All members of the population had an equal and independent chance of being included in the sample. The sample size used in this research was 310 textile companies, which is about 12.4 percent of the total target population. This sample size was adequate and large enough to be representative of the population.

Procedures

Personal interviews with the respondents were used to collect the data for this research study. The personal interview method was used in order to gain a high response rate. However, normally personal interviews are not considered cost effective in the Thailand for survey questions. Due to the unique aspect of the Thai culture, personal interviews are very popular methods used to collect data. Kuntonburt (1997) said that in Thailand, personal interviews are considered more socially acceptable and as cost-effective and cost-efficient when compared to mailed questionnaires or telephone interviews.

For this study, there were three steps in the data collection process. First, the questionnaire was delivered through the mail to a specific person within the organization who participated in purchasing decision for imported products. A cover letter was

enclosed with the questionnaire to inform the respondent of the objectives, significance, and usefulness of the research, and to ask the respondents to participate by allowing an appointment to be schedule with the interviewers. The letter also contained the appointment time schedules for the respondent to consider. This was done to increase the credibility of the research and to have the right person answer the questions.

Second, the interviewers made a phone-call to each respondent to arrange an interview appointment. This phone call was also used to reassure the respondents of the importance of the study and help them feel comfortable about answering the questions.

Third, six interviewers were selected and trained to conduct the personal interviews by a research instructor who had a clearly understanding of this research study. The interviewers were given a clear explanation of all questions on the questionnaire, as well as the procedures for data collection. This training of interviewers was used to reduce the misinterpretation of questions by the respondents, as well as to decrease the rate of unanswered questions.

The questionnaire was first developed in the Thai language. Prior to the data collection stage, 30 sets of questionnaire are out to 30 Thai textile purchasing managers to be certain that every single question would be fully understood. Subsequently, content validity and reliability was used to check to be certain that the data the collection form was valid. In detail, the panel of evaluator each question in the instrument and the research objectives to make sure that things to be measured were measured and would yield the best possible results for generalization. Eventually, 350 copies of Thai version questionnaires were sent to all individuals involved in this study.

The questionnaire was designed to be completed through personal interview. Besides, this can reduce the misinterpretation of questions' contents. It can also create more truthful responses because the obtained data in a personal interview can help keep respondents' answers a confidential. In general, the response rate of personal interview is high as 75-90 percents (Ary, Jacobs & Razavieh, 1990) so it is not necessary to have a follow-ups for non-responses.

Data Processing and Analysis

The most appropriate analytical tool for testing all hypotheses (H_1-H_5) is analysis of co-variance (ANCOVA) because it is used to measure the significant difference between matrix variables and category variables. This hypothesis will be supported if each of the independent variables significantly relate to the dependent variable at $p<.05$. Similarly, statistical significance level or $p<.05$ would be the sole indicator of accepting or rejecting the hypothesis.

In conclusions, the following table shows the statistical techniques and their purpose for the present research hypotheses:

Table 4:

Statistical Techniques used to Analyze Data

Procedure	Purpose
1. Analysis of Covariance (ANCOVA): This technique was used for hypotheses one to five	■ To test the hypothesis that has only one dependent variable and one category variable and matrix variable.
■ H_1: There is a significant difference between country-of-origin stereotypes and the purchasing decision of a foreign supplier by Thai import purchasing managers.	■ H1: (IV) = Group Category (DV) = Matrix
■ H_2: There is a significant difference between past purchasing experience and the purchasing decision of a foreign supplier by Thai import purchasing managers	■ H2: (IV) = Group Category (DV) = Matrix
■ H_3: There is a significant difference between selection criteria and a purchasing decision making for buying industrial machinery products by Thai import purchasing managers.	■ H3: (IV) = Matrix (DV) = Matrix
■ H_4: There is a significant difference between suppliers/exporters among Japanese, the United States, and German and purchasing decision by Thai import purchasing managers.	■ H4: (IV) = Matrix (DV) = Matrix
■ H_5: There is a significant difference between product characteristics among Japanese, the United States, and German and purchasing decision by Thai import purchasing managers.	■ H5: (IV) = Matrix (DV) = Matrix

CHAPTER FOUR: FINDINGS

This chapter presents the results of the data collection and statistical analysis. First, the chapter begins with a brief restatement of the purpose of the study. Second, the measurement of reliability and validity is presented, followed by a frequency distribution. Third, the results of the tests of the research hypotheses are discussed in detail. Finally, the chapter concludes with a summary of the findings.

Restatement of the Purpose

This study focused on the importer's side of international trade by investigating Thai import purchasing managers' decision processes for selecting foreign suppliers among Japanese, the United States, and German industrial exporters.

First, the purpose of this study was to find out what the important selection criteria are for foreign suppliers to Thai import purchasing managers.

Second, this research surveyed Thai import purchasing managers' evaluations of Japanese, the United States, and German industrial exporters' characteristics and the nature of their products (industrial machinery).

Finally, the importance of individual characteristics of Thai import purchasing managers perceptions were examined—for example purchasing experiences and stereotypes (country-of-origin).

Reliability and Validity Tests

This research study used Cronbach's alpha to measure the internal consistency of the instruments, which are "the most accepted formula for assessing reliability of a

measurement scale with multi-point items (Peter, 1979, p.8)." Table 6 displays the

coefficient alpha of all multi-item variables in this research questionnaire. The

coefficient alpha of the "selection criteria" variable was .83.

However, the coefficient alphas of perception of supplier characteristics of

Japanese, the United States, and German exporters were .71, .73, and .77 respectively.

The coefficient alphas of perception on product characteristics of Japanese, the United

States, and German exporters were .65, .68, and .63 respectively. Since most constructs

in the study had relatively high alpha coefficient scores, it ensured that the questions

were quite reliable and useful for this and future research.

The content validity of the questionnaire was tested through personal interviews

with three import experts, and two research experts in order to ensure that the

questionnaire used appropriate wording and was sufficient to cover the research

questions. Following this, the questionnaire was pretested using 30 respondents from the

sample that all questions were readable and understandable to the respondents.

Table 5

Coefficient of Reliability

Construct	Coefficient
Purchase Decision Participation	.83
Perception toward Foreign Supplier Characteristics:	
Japan Exporter	.71
United States Exporter	.73
Germany Exporter	.77
Perception toward Foreign Product's Characteristics:	
Japan Exporter	.65
United States Exporter	.68
Germany Exporter	.63

<center>Frequency Distribution</center>

The following tables present the general descriptive statistics for all 31 questions in the questionnaire. Questions 1-22 addressed the research hypotheses. Questions 23-26 addressed about the respondents' company profile and question 27-31 addressed the respondents' personal data.

Table 6

<u>Frequency Distribution</u>

Questions	Frequency	Percent	Valid Percent	Cumulative Percent
<u>Part A</u>				
Q1: The organizational position of the respondents				
- 1 = Staff	17	5.4	5.5	100
- 2 = Lower management	20	6.4	6.5	94.5
- 3 = Middle management	114	36.5	36.5	88.1
- 4 = Upper management	159	51.0	51.3	51.3
Q2: Level of participation for purchasing imported machinery products				
- 1 = Low	46	14.7	14.8	14.8
- 2	22	7.1	7.1	21.9
- 3	65	20.8	21.0	42.3
- 4	132	42.3	42.6	85.5
- 5 = High	45	14.4	14.5	100.0
Total	310	99.4	100.0	
Q3: The level of product value of last purchase				
- 1 = less than 1,000,000 (baht)	129	41.3	42.4	42.4
- 2 = 1,000,001 - 4,000,000 (baht)	129	41.3	42.4	84.9
- 3 = 4,000,001 - 7,000,000 (baht)	33	10.6	10.9	95.7
- 4 = 7,000,001 -10,000,001 (baht)	5	1.6	1.6	97.4
- 5 = more than 10,000,000 (baht)	8	2.6	2.6	100.0
Q4: Selection Criteria: Price				
- 1 = Low	2	.6	.7	.7
- 2	8	2.6	2.6	3.3
- 3	165	52.9	54.3	57.6
- 4	57	18.3	18.8	76.3
- 5 = High	72	23.1	23.7	100.0
Total	304	97.4	100.0	

<center>58</center>

Q4.2: Quality
- 1 = Low
- 2

- 3	28	9.0	9.2	9.2
- 4	78	25	25.7	34.9
- 5 = High	198	63.5	65.1	100.0
Total	304	97.4	100.0	

Q4.3: Distribution
- 1 = Low

- 2	11	3.5	3.7	3.7
- 3	136	43.6	45.2	48.8
- 4	98	31.4	32.6	81.4
- 5 = High	56	17.9	18.6	100.0
Total	301	96.5	100.0	

Q4.4: Level Post Sale Service
- 1 = Low

- 2	5	1.6	1.7	1.7
- 3	132	42.3	43.6	45.2
- 4	87	27.9	28.7	73.9
- 5 = High	79	25.3	26.1	100.0
Total	303	97.1	100.0	

Q4.5: Level of Technology of Supplier
- 1 = Low

- 2	19	6.1	6.3	6.3
- 3	144	46.2	47.5	53.8
- 4	66	21.2	21.8	75.6
- 5 = High	74	23.7	24.4	100.0
Total	303	97.1	100.0	

Q5: Past Purchasing Experience (Japan)

No	100	32.1	37.3	37.3
Yes	168	53.8	62.7	100.0

Q6: The total amount of imported
Japanese industrial machinery products
during 1996-2001

- 1 = less than 1,000,000 (baht)	72	23.1	43.6	43.6
- 2 = 1,000,001 - 4,000,000 (baht)	65	20.8	39.4	83
- 3 = 4,000,001 - 7,000,000 (baht)	13	4.2	7.9	90.9
- 4 = 7,000,001 -10,000,001 (baht)	6	1.9	3.6	94.5
- 5 = more than 10,000,000 (baht)	9	2.9	5.5	100.0

Q7.1: Supplier's Characteristic (Level
of Technology of Japan)
- 1 = Low

- 2	1	.3	.6	.6
- 3	52	16.7	31.0	31.5
- 4	84	26.9	50.0	81.5
- 5 = High	31	9.9	18.5	100.0
Total	168	53.8	100.0	

Q7.2: Level of Trade Experience				
(Japan)	3	1.0	1.8	1.8
- 1 = Low	6	1.9	3.6	5.4
- 2	63	20.2	37.5	42.9
- 3	66	21.2	39.3	82.1
- 4	30	9.6	17.9	100.0
- 5 = High	168	53.8	100.0	
Total				
Q7.3: Level of relationship with Japan				
- 1 = Low	11	3.5	6.5	6.5
- 2	10	3.2	6.0	12.5
- 3	49	15.7	29.2	41.7
- 4	61	19.6	36.5	78.0
- 5 = High	37	11.9	22.0	100.0
Total	168	53.8	100.0	
Q7.4: Level of imported machinery				
price from Japan				
- 1= Low				
- 2	4	1.3	2.5	2.5
- 3	78	25.0	47.5	50.3
- 4	49	15.7	30.1	80.4
- 5 = High	32	10.3	19.6	100.0
Total	163	52.2	100.0	
Q7.5: Level of product quality of				
imported machinery from Japan				
- 1= Low				
- 2				
- 3	19	6.1	11.7	11.7
- 4	76	24.4	46.9	58.6
- 5 = High	67	21.5	41.4	100.0
Total	162	51.9	100.0	
Q7.6: Level of product performance of				
imported machinery from Japan				
- 1= Low				
- 2				
- 3	16	5.1	9.9	9.9
- 4	48	15.4	29.6	39.5
- 5 = High	98	31.4	60.5	100.0
Total	162	51.9	100.0	
Q7.7: Level of product reliability and				
durability of imported machinery from				
Japan				
- 1= Low				
- 2				
- 3	25	8.0	15.4	15.4
- 4	44	14.1	27.2	42.6
- 5 = High	93	29.8	57.4	100.0
Total	162	51.9	100.0	

Q7.8: Product Design from Japan
- 1= Low

- 2	4	1.3	2.5	2.5
- 3	72	23.1	44.4	46.9
- 4	44	14.1	27.2	74.1
- 5 = High	42	13.5	25.9	100.0
Total	162	51.9	100.0	

Q8: Past Purchasing Experience (USA)

No	173	55.4	69.5	69.5
Yes	76	24.4	30.5	100.0

Q9: The total amount of imported the
United States industrial machinery
products during 1996-2001

- 1 = less than 1,000,000 (baht)	20	6.4	26.3	26.3
- 2 = 1,000,001 - 4,000,000 (baht)	39	12.5	51.3	77.6
- 3 = 4,000,001 - 7,000,000 (baht)	10	3.2	13.2	90.8
- 4 = 7,000,001 -10,000,001 (baht)	4	1.3	5.3	96.1
- 5 = more than 10,000,000 (baht)	3	1.0	3.9	100.0

Q10.1: Selection Criteria (Level of
Technology of USA)
- 1 = Low
- 2

- 3	13	4.2	17.8	17.8
- 4	41	13.1	56.2	74.0
- 5 = High	19	6.1	26.0	100.0
Total	73	23.4	100.0	

Q10.2: Level of Trade Experience
(USA)

- 1 = Low	5	1.6	6.8	6.8
- 2	19	6.1	26.0	32.9
- 3	37	11.9	50.7	83.6
- 4	12	3.8	16.4	100.0
- 5 = High	73	23.4	100.0	
Total				

Q10.3: Level of relationship with USA

- 1 = Low	3	1.0	4.1	4.1
- 2	8	2.6	11.0	15.1
- 3	15	4.8	20.5	35.6
- 4	33	10.6	45.2	80.8
- 5 = High	14	4.5	19.2	100.0
Total	73	23.4	100.0	

Q10.4: Level of imported machinery
price from USA
- 1= Low

- 2	1	0.3	1.4	1.4
- 3	28	9.0	38.4	39.7
- 4	30	9.6	41.1	80.8
- 5 = High	14	4.5	19.2	100.0
Total	73	23.4	100.0	

Q10.5: Level of product quality of
imported machinery from USA
- 1= Low
- 2
- 3

- 4	34	10.9	46.6	46.6
- 5 = High	39	12.5	53.4	100.0
Total	73	23.4	100.0	

Q10.6: Level of product performance of
imported machinery from USA
- 1= Low
- 2

- 3	1	.3	1.4	1.4
- 4	22	7.1	30.1	31.5
- 5 = High	50	16.0	68.5	100.0
Total	73	23.4	100.0	

Q10.7: Level of product reliability and
durability of imported machinery from
USA
- 1= Low
- 2

- 3	3	1.0	4.1	4.1
- 4	25	8.0	34.2	38.4
- 5 = High	45	14.4	61.6	100.0
Total	73	23.4	100.0	

Q10.8: Product Design from Japan
- 1= Low

- 2	2	.6	2.7	2.7
- 3	23	7.4	31.5	34.2
- 4	28	9.0	38.4	72.6
- 5 = High	20	6.4	27.4	100.0
Total	73	23.4	100.0	

Q11: Past Purchasing Experience
(Germany)

No	176	56.4	69.3	69.3
Yes	78	25	30.7	100.0

Q12: The total amount of imported the
Germany industrial machinery products
during 1996-2001

- 1 = less than 1,000,000 (baht)	23	7.4	30.7	30.7
- 2 = 1,000,001 - 4,000,000 (baht)	27	8.7	36.0	66.7
- 3 = 4,000,001 - 7,000,000 (baht)	17	5.4	22.7	89.3
- 4 = 7,000,001 -10,000,001 (baht)	3	1.0	4.0	93.3
- 5 = more than 10,000,000 (baht)	5	1.6	6.7	100.00

Q13.1: Selection Criteria (Level of
Technology of Germany)

- 1 = Low				
- 2				
- 3	19	6.1	26.0	26.0
- 4	35	11.2	47.9	74.0
- 5 = High	19	6.1	26.0	100.0
Total	73	23.4	100.0	

Q13.2: Level of Trade Experience
(GM)

- 1 = Low	5	1.6	6.8	6.8
- 2	32	10.3	43.8	50.7
- 3	28	9.0	38.4	89.0
- 4	8	2.6	11.0	100.0
- 5 = High	73	23.4	100.0	
Total				

Q13.3: Level of relationship with
Germany

- 1 = Low	5	1.6	6.8	6.8
- 2	6	1.9	8.2	15.1
- 3	23	7.4	31.5	46.6
- 4	29	9.3	39.7	86.3
- 5 = High	10	3.2	13.7	100.0
Total	73	23.4	100.0	

Q13.4: Level of imported machinery
price from Germany

- 1= Low				
- 2				
- 3	27	8.7	37.0	37.0
- 4	26	8.3	35.6	72.6
- 5 = High	20	6.4	27.4	100.0
Total	73	23.4	100.0	

Q13.5: Level of product quality of
imported machinery from Germany

- 1= Low				
- 2				
- 3	3	1.0	4.1	4.1
- 4	24	7.7	32.9	37.0
- 5 = High	46	14.7	63.0	100.0
Total	73	23.4	100.0	

Q13.6: Level of product performance of
imported machinery from Germany
- 1= Low				
- 2				
- 3	5	1.6	6.8	6.8
- 4	21	6.7	28.8	35.6
- 5 = High	47	15.1	64.4	100.0
Total	73	23.4	100.0	

Q13.7: Level of product reliability and
durability of imported machinery from
USA
- 1= Low				
- 2				
- 3	6	1.9	8.2	8.2
- 4	19	6.1	26.0	34.2
- 5 = High	48	15.4	65.8	100.0
Total	73	23.4	100.0	

Q13.8: Product Design from Japan
- 1= Low	1	.3	1.4	1.4
- 2	3	1.0	4.1	5.4
- 3	37	11.9	50.0	55.4
- 4	16	5.1	21.6	77.0
- 5 = High	17	5.4	23.0	100.0
Total	74	23.7	100.0	

Q14: Country of Origin Stereotypes
(Country Image)
No	226	72.4	74.1	74.1
Yes	79	25.3	25.9	100.0

Q15: Which country is the best country
image
Japan Supplier	35	11.2	43.8	43.8
USA Supplier	26	8.3	32.5	76.3
German Supplier	19	6.1	23.8	100.0
Total	80	25.6	100.0	

Q16.1: Value imported from USA
40,000.00	1	.3	2.8	2.8
50,000.00	3	1.0	8.3	11.1
60,000.00	3	1.0	8.3	19.4
70,000.00	2	.6	5.6	25.0
80,000.00	1	.3	2.8	27.8
1,000,000.00	3	1.0	8.3	36.1
2,000,000.00	2	.6	5.6	41.7
2,500,000.00	1	.3	2.8	44.4
3,000,000.00	2	.6	5.6	50.0
3,656656.99	1	.3	2.8	52.8
4,000,000.00	3	1.0	8.3	61.1
5,000,000.00	2	.6	5.6	66.7
6,000,000.00	2	.6	5.6	72.2
7,000,000.00	1	.3	2.8	75.0
9,000,000.00	1	.3	2.8	77.8

10,000,000.00	2	.6	5.6	83.3
15,000,000.00	3	1.0	8.3	91.7
20,000,000.00	2	.6	5.6	97.2
30,000,000.00	1	.3	2.8	100.0
Total	36	11.5	100.0	

Q16.2: Percentage imported from Germany

0%	5	1.6	16.7	16.7
1-25%	3	1	10	26.7
26-50%	11	3.5	36.7	63.3
51-75%	9	2.9	30	93.3
76-100%	2	.6	6.7	100.0
Total	30	9.6	100.0	

Q17: During 1996-2001, did you import industrial machinery products from Japan, USA, Germany, or etc.

Japan	159	51.0	53	53
USA	68	21.8	22.7	75.7
Germany	70	22.4	23.3	99.0
Others	3	1.0	1.0	100.0
Total	300	96.2	100.0	

Q18: From Question 17, How many percentage account for purchasing machinery for that country

1-25%	26	8.3	8.8	8.8
26-50%	74	23.7	25.1	33.9
51-75%	113	36.2	38.5	72.2
76-100%	82	26.3	27.8	100.0
Total	295	94.6	100.0	

Q19.1: The perceptions toward supplier's characteristics

- 1 = Low				
- 2	3	1.0	1.0	1.0
- 3	24	7.7	8.2	9.2
- 4	209	67.0	71.3	80.5
- 5 = High	57	18.3	19.5	100.0
Total	293	93.9	100.0	

Q19.2: The perceptions toward product's characteristics.

- 1 = Low	3	1.0	1.0	1.0
- 2	12	3.8	4.1	5.1
- 3	195	62.5	66.6	71.7
- 4	78	25.0	26.6	98.3
- 5 = High	5	1.6	1.7	100.0
Total	293	93.9	100.0	

Q20: In 2001, did you import industrial machinery products from the same exporter in year 2000.

Yes	226	72.4	74.6	74.6
No	77	24.7	25.4	100.0
Total	30.3	97.1	100.0	

Q21: Total sales in year 2001.

- Less than 10 million Baht	122	39.1	40.7	40.7
- 1-10 million Baht	127	40.7	42.3	83.0
- 40-70 million Baht	20	6.4	6.7	89.7
- 70-100 million Baht	13	4.2	4.3	94.0
- More than 100 million	18	5.8	6.0	100.0
- Total	300	96.2	100.0	

Q22: Total value for imported goods in year 2001.

- Less than 1 million Baht	104	33.3	39.2	39.2
- 1-10 million Baht	137	43.9	51.7	90.9
- 10-20 million Baht	12	3.8	4.5	95.5
- 20-30 million Baht	6	1.9	2.3	97.5
- More than 30 million	6	1.9	2.3	100.0
- Total	265	84.9	100.0	

Q23: Total value for imported machinery in year 2001.

- Less than 1 million Baht	140	44.9	51.3	51.3
- 1-4 million Baht	100	32.1	36.6	87.9
- 4-7 million Baht	22	7.1	8.1	96.0
- 7-10 million Baht	6	1.9	2.2	98.2
- More than 10 million	5	1.6	1.8	100.0
- Total	273	87.5	100.0	

Q24: How long your company has been in this business.

- 1-5 Years	58	18.6	18.7	18.7
- 6-10 Years	110	35.3	35.5	54.2
- 10-15 Years	60	19.2	19.4	73.5
- More than 15 years	82	26.3	26.5	100.0
Total	310	99.4	100.0	

Q25: Gender

Male				
Female	220	70.5	71.0	71.0
Total	90	28.8	29.0	100.0
	310	99.4	100.0	

Q26: Age

- Below 25 years	2	.6	.6	.6
- 26-35 years	61	19.6	19.7	20.3
- 36-45 years	155	49.7	50.0	70.3
- 46-55 years	85	27.2	27.4	97.7
- More than 55 years	7	2.2	2.3	100.0
Total	310	99.4	100.0	

Q27: Education				
- Elementary School	1	.3	.3	.3
- High School	33	10.6	10.9	11.2
- Bachelor Degree	257	82.4	84.5	95.7
- Graduate Level	13	4.2	4.3	100.0
Total	304	97.4	100.0	

Table 6 (Part A) presents the descriptive statistics of the level of the

organizational positions and the degree of participation in making decisions for buying

industrial machinery products (questions 1&2). The level of the organizational position

is classified into four levels (upper management, middle management, lower

management, and staff) which are scored as 4, 3, 2, and 1, respectively. The degree of

participation ranges from 1 (low) to 5 (high).

In addition, the table 6 also presents the descriptive statistics of the levels of

industrial machinery product's value for the last purchase and the degree of importance

of selection criteria through questions 5. The levels of the industrial machinery product's

value (asked is classified into five levels (less than 1,000,000, 1,000,001-4,000,000,

4,000,001-7,000,000, 7,000,001-10,000,000, and more than 10,000,000 baht), which are

scored as 1, 2, 3, 4, and 5, respectively. The selection criteria were measured by five

items including product price, product quality, reliability of delivery, availability of after-

sales service, and supplier technical skills. The scores ranged from 0 (not considered) to

5 (extremely important).

Table 6 (Part A) presents the descriptive statistics of the number of respondents

who imported industrial machinery products from Japan in the last five years (in question

5), the monetary amount of the yearly imported industrial machinery products from Japan

in last five years (in question 6) and both supplier and product characteristics of Japanese

exporters (in question 7). The yearly amount of the industrial machinery products imported from Japan was classified into five levels (less than 1,000,000, 1,000,001-4,000,000, 4,000,001-7,000,000, 7,000,001-10,000,000, and more than 10,000,000 baht) which are scored as 1, 2, 3, 4, and 5, respectively. Supplier characteristics were measured by three items including technical, commercial, and interpersonal skills (questions 7.1-7.3). The product characteristics were measured by five items including the product price, quality, performance, durability, and design. The score for each item of both supplier and product characteristics ranges from 1 (low) to 5 (high).

Table 6 (Part A) presents the descriptive statistics of the number of respondents who imported industrial machinery products from the United States in last five years (in question 8), the amount of the yearly importing industrial machinery products from the United States in last five years (in question 9) and both supplier and product characteristics of the United States exporters (in question 10). The monetary amount of the yearly imported industrial machinery products from the United States is classified into five levels (less than 1,000,000, 1,000,001-4,000,000, 4,000,001-7,000,000, 7,000,001-10,000,000, and more than 10,000,000 baht) which are scored as 1, 2, 3, 4, and 5, respectively. The supplier characteristics were measured by three items including technical, commercial, and interpersonal skills. The product characteristics were measured by five items including product price, product quality, product performance, product durability, and product design. The score for each item of both supplier and product characteristics ranges from 1 (low) to 5 (high).

In addition, the table also presents the descriptive statistics of the number of respondents who imported industrial machinery products from Germany in last five years

(in question 11), the monetary amount of the yearly imported industrial machinery products from Germany in last five years (in question 12) and both the supplier and product characteristics of German exporters (in question 13). The amount of the yearly imported industrial machinery products from Germany is classified into five levels (less than 1,000,000, 1,000,001-4,000,000, 4,000,001-7,000,000, 7,000,001-10,000,000, and more than 10,000,000 baht) which are scored as 1, 2, 3, 4, and 5, respectively. The supplier characteristics were measured by three items including technical, commercial, and interpersonal skills. The product characteristics were measured by five items including the product price, quality, performance, durability, and design. The scores for each item of both supplier and product characteristics ranges from 1 (low) to 5 (high).

The descriptive statistics for the number of respondents who had been effected by the supplier's country image on industrial machinery products (in question 14), the ranking of the best country image to the least one among three exporting countries— Japan, the United States, and Germany (in question 15), and the percentage of imported industrial machinery products from those three major exporters—Japanese, the United States, and German exporters to the yearly total imports value in last five years (in question 16). The ranking of the best country image to the least one was scored from 6 (for the first rank), 4 (for the second rank), and 2 (for the third rank). The percentage of the importing industrial machinery products was categorized into five levels (100-76%, 75-51%, 50-26%, 25-1%, and 0%), which was scored as 4, 3, 2, 1, and 0, respectively.

The descriptive statistics for the respondents' largest exporter in 1996 (in question 17), the percentage of purchase from this largest exporter in 1996 (in question 18), the

degree of satisfaction of the past purchasing experience for both supplier and product characteristics in 1996 (in questions 19).

The descriptive statistics of company profile (questions 21-27). Question 21 concerns annual sales (in baht) in 1996 which was categorized into five levels (less than 10,000,000, 10,000,001-40,000,000, 40,000,001-70,000,000, 70,000,001-100,000,000, and more than 100,000,000). Question 22 concerns the level of total imports (amount in baht) in 1996, which was categorized into five levels (less than 1,00,000, 1,000,001-10,000,000, 10,000,001-20,000,000, 20,000,001-30,000,000, and more than 30,000,000). Question 23 concerns the levels of total imports (amount in baht) of industrial machinery products in 1996 which was categorized into five levels (less than 1,000,000, 1,000,001-4,000,000, 4,000,001-7,000,000, 7,000,001-10,000,000, and more than 10,000,000). As the results shown, in 1996 most of the respondent firms were very large companies, which had more than a hundred million baht of annual sales. Moreover they also have high import values, which were more than 30 million baht in 1996. Specifically, the import value of industrial machinery products was more than 10 million baht. The results of question 24 indicated that most of the firms had been in the importing business more than 15 years.

Finally, the descriptive statistics of the respondents' personal data including gender, age, education, and purchasing experience. The average age of the respondents is 35 to 45 years old. The average education level of the respondents is a bachelors degree. In conclusion, Table 6 (Part A) reported the descriptive statistics in more detail such as frequency, percentage, valid percentage for each item in the questionnaire.

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Hypothesis Testing

There were five hypotheses that were tested in this research study. They are

shown in Table 8. The results of these hypotheses are discussed one by one.

Table 7

List of Hypothesis

H_1: There is a significant difference between country-of-origin stereotypes and the
Purchasing decision of a foreign supplier by Thai import purchasing managers.

H_2: There is a significant difference between the past purchasing experiences and the
selection decision of a foreign supplier by Thai import companies' purchasing
managers/members.

H_3: There is a significant difference between selection criteria and purchasing decision
for buying industrial machinery products by Thai import purchasing managers.

H_4: There is a significant difference in supplier characteristics among Japanese, the
United States, and German suppliers/exporters by Thai import companies'
purchasing managers/members' perceptions.

H_5: There is a significant difference in product characteristics among Japanese, the
United States, and German suppliers/exporters by Thai import companies'
purchasing managers/members' perceptions.

Table 8: Summary of Analysis of Co-Variance (ANCOVA) with Category and Metric Variables

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Model Sig. = .000
R-Square = .387
Adjust R-Square = .342

Category Variables	Sig.
▪ Past Experience (Japan)	.974
▪ Past Experience (US)	.531
▪ Past Experience (Germany)	.609
▪ Country of Origin	.027

Metric Variables	
▪ Selection Criteria	.000
▪ Supplier Characteristics	.098
▪ Product Characteristics	.005

Hypothesis One: There is a significant difference between country-of-origin stereotypes and the purchasing decision of a foreign supplier by Thai import purchasing managers. An Analysis of co-variance was conducted to evaluate the degree of participation in making the purchasing decision for buying industrial machinery products by Thai importer.

Table 9

ANCOVA Results for Testing Hypothesis One

Variable	df	Mean Saquare	F	Sig
Country of Origin	1	4.660	4.999	.027

Note: Dependent variable: Purchasing Decision
Independent variable: Country of Origin

Thus, the null hypothesis was rejected and the alternative hypothesis (H_1) was supported; there is a significant difference between country of origin and the purchasing decision for buying industrial machinery products. At the .05 significant level, there is a significant positive relationship between the country of origin stereotypes and purchasing decision for buying industrial machinery products. According to the positive effects of the supplier's country image, a favorable country image can increase the purchase volume of textile machinery products from those countries.

Hypothesis Two: There is a significant difference between the past purchasing experiences and the selection decisions of a foreign supplier by Thai imports' purchasing managers/members. An analysis of co-variance (ANCOVA) was conducted to evaluate the prediction of selection decision of a foreign supplier by Thai import purchasing managers from their past purchasing experiences of Thai importer purchasing manager/member.

Accuracy in predicting degree of purchase decision participation was small. The correlation between past purchasing experiences of Thai importer and the selection decision of a foreign supplier by Thai importer purchasing managers was F (0.01, .393, .262), p = (.974, .531, .609).

Table 10

ANCOVA Results for Testing Hypothesis Two

Variable	df	Mean Saquare	F	Sig
Past Experience (Japan)	1	9.899	.001	.974
Past Experience (USA)	1	.366	.393	.531
Past Experience (Gemany)	1	.244	.262	.609

Note: Dependent variable: Purchasing Decision
        Independent variable: Past experience (Japan), Past experience (USA), and Past
        experience (Germany).

Thus, the null hypothesis was accepted and the alternative hypothesis (H_2) was

rejected. There is a no significant difference between the past purchasing experiences

and the purchasing decision of a foreign supplier by Thai import purchasing managers.

The results of an analysis of co-variance indicated that there was no significant difference

between those two variables. This can be explained by the fact that technology changes

and upgrades all the time. In this circumstance, the past purchasing experience therefore

does not influence the purchasing decision by Thai imported purchasing decision. As a

result, the higher the degree of satisfaction of past purchasing experiences have not

related to loyalty for a decision making of foreign supplier selection.

Hypothesis Three: There is a significant difference between selection criteria and

purchasing decision for buying industrial machinery products by Thai import purchasing

managers.

Table 11 indicated that all five selection criteria were significantly related to

decision making for buying industrial machinery products by Thai import purchasing

managers. Approximately .000 percent of the variance of the selection criteria were

accounted for by its difference with purchasing decision for buying industrial machinery

products by Thai import purchasing managers.

Table 11

ANCOVA Result for Hypothesis Three

Variable	df	Mean Square	F	Sig.
Selection Criteria	1	38.465	41.263	0.00

Note: Dependent variable: Purchasing Decision for Buying Industrial Machinery
Products
    Independent variable: Selection Criteria (Product price, Product quality,
        Reliability of Delivery, Availability of After-Sales Service,
        and Suppliers' Technical Skills)

Thus, the null hypothesis was rejected and the alternative hypothesis (H_3)

was supported at sig. 000. There is a significant difference between selection criteria and

purchasing decision for buying industrial machinery products by Thai import purchasing

managers. As a result of the analyses, it was found that the selection criteria including

the product price, quality, reliability of delivery, availability of after-sales service, and

supplier technical skills were important to decision making for buying textile machinery

products by Thai import purchasing managers. The research finding was along with

many previous research by Shipley (1985), Lee & Dobler (1971), Monore & Dodds

(1988), Lehmann & O'Shaughnessy (1974); and Webster (1979).

Hypothesis Four: There is a significant difference between supplier characteristics

(supplier technical skills, commercial skills, and inter personal skills) among Japanese,

the United States, and German suppliers/exporters and purchasing decision by Thai

import purchasing managers' perceptions. An analysis of co-variance (ANCOVA) was

conducted to evaluate whether Thai import companies have purchasing decision related

to supplier characteristics among Japanese, the United States, and German

suppliers/exporters. The within-subjects factor was their involvement with Japanese, the

United States, and German exporters, and the dependent variable was their perception

ratings associated with each supplier characteristics including technical, commercial, and

interpersonal skills. The means and standard deviations are presented in Table 13. Table

13 presented the results for the ANCOVA which indicated a significant effect, F (2.762),

p = .098.

Table 12

ANCOVA Result for Hypothesis Four

Variable	df	Mean Square	F	Sig.
Supplier Characteristics	1	2.575	2.762	0.098

Note: Dependent variable: Purchasing Decision for Buying Industrial Machinery
Products
Independent variable: Supplier's Characteristics (technical, commercial, and
interpersonal skills).

Thus, the null hypothesis was accepted and the alternative hypothesis (H4) was

rejected. There is no significant difference between supplier characteristics among

Japanese, the United States, and German suppliers/exporters and purchasing decision.

These can be explained by the fact that most textile machinery suppliers have common

similarities and strategies in their technical skills, commercial skills, and interpersonal

skills related to this industry. The research finding was also along with Lehman &

O'Shaughnessy (1982), who investigated the decision criteria used in buying different categories of products. The researchers found if the products became less standard, economic criteria would decrease in importance while performance criteria would increase in importance. Therefore, the research findings show there was no significant difference (Sig = 0.098) between supplier characteristics and purchasing decision.

Hypothesis Five: There is a significant difference between product characteristics among Japanese, the United States, and German suppliers/exporters and purchasing decision by Thai import purchasing managers' perceptions. An analysis of co-variance (ANCOVA) to evaluate whether there is any significant difference between product's characteristics among Japanese, the United States, and German suppliers/exporters and purchasing decision-making. The within-subjects factor was their involvement with Japanese, the United States, and German exporters, and the dependent variable was their perception ratings associated with each product characteristic including the product price, quality, performance, durability, and design. The means and standard deviations across all are presented in Table 13. Table 14 presented the results for the ANCOVA which indicated a significant effect, $F (7.925)$, $p = .005$.

Table 13

ANCOVA Result for Hypothesis Five

Variable	df	Mean Square	F	Sig.
Product's Characteristics	1	7.387	7.925	0.005

Note: Dependent variable: Purchasing Decision for Buying Industrial Machinery
        Products
    Independent variable: Product's Characteristics (product price, quality,
    performance, durability, and design).

Thus, the null hypothesis was rejected and the alternative hypothesis (H_4) was

supported. There is a significant difference between product characteristics among

Japanese, the United States, and German suppliers/exporters by Thai import purchasing

managers' perceptions. The results of the mean ratings from Thai import companies on

product characteristics indicated that Japanese exporters have the highest scores in total

for product price, quality, performance, durability, and design, followed by German and

the United States exporters, respectively.

Table 14

<u>Summary of Hypothesis Testing Results</u>

H_1:   Supported   Significant at p<.05
(There is a significant difference between country of origin stereotypes and the degree of participation in purchasing decision of the buying for buying industrial machinery products).

H_2:   Unsupported   Significant at p> .05
(There is no significant difference between past purchasing experiences and the purchasing decision of a foreign supplier by Thai import purchasing managers).

H_3:   Supported   Significant at p< .05
(Due to the selection criteria explained only 5% of variation in product purchase value yielding a minimal effect size and p<.05, there is a significant difference between selection criteria and purchasing decision making for buying industrial machinery products by Thai import companies' purchasing managers/members).

H_4:   Unsupported   Significant at p>.05
(There is no significant difference between supplier characteristics among Japanese, the United States, and German suppliers/exporters and purchasing decision by Thai import purchasing managers).

H_5:   Supported   Significant at p<.05
(There is a significant difference between product characteristics among Japanese, the United States, and German suppliers/exporters and purchasing decision by Thai import purchasing managers).

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter begins with a brief problem summary, a theoretical statement, and a methodology section, followed by the conclusion of the study. Then, the results of these research hypotheses will be discussed for managerial implications. Finally, the researcher sums up the chapter with recommendations for future research.

Summary

Since it is important to understand Thai import companies' decisions to select textile industrial machinery products, this research investigates the significant selection criteria used to evaluate foreign supplier of textile machinery products by Thai import purchasing managers. Moreover, this research also examines how Thai import companies evaluate three major textile machinery exporters—Japanese, the United States, and German exporters in both supplier and product characteristics. In addition, the country-of-origin stereotypes, selection criteria, and past purchasing experiences were examined.

The researcher bases the development of the research hypotheses on three major concepts:

1. Organizational Buying Behavior by Webster & Wind (1972)—two important organizational buying behavior concepts: organizational buying decision involving a

buying center, and the four stages of organizational buying process which are problem

recognition, assignment of buying authority and responsibility, a search process for

identifying product offering and for establishing selection criteria, choice process for

evaluation and selection of alternative suppliers

2. Industrial Buyer Behavior by Sheth (1973)—four essential components—expectations

of individual involved in the decision, organizational buying process, the decision-

making process, and situational factors

3. An Integrative Model of International Industrial Buyer Behavior by Samli, Grewal &

Mathur (1988)—six groups of factors influencing buying units functions, namely

individual factors, organizational factors, environmental factors, societal/cultural factors,

government roles and regulation, and uncertainty factors.

In addition, Nydick & Hill (1992) asserted that supplier selection is the important

phase of the organizational buying process. They also indicated that basic criteria

generally used to evaluate the potential suppliers were price, product, quality, delivery,

and service. However, there were many researches studied the decision criteria used to

evaluate and select foreign suppliers (Ghymn, 1980; Garrett, 1985; Habte-Glorgis, 1968;

and Deng, 1987)

Five hypotheses were thererfore investigated in order to answer the research

questions. Data were obtained from three hundred Thai import purchasing managers

through personal interviews. The data was analyzed by descriptive analysis, which

included analysis of co-variance (ANCOVA) as the method to test all hypotheses.

Conclusion of Findings

First of all, the supplier's country of image and the importer's satisfaction positively affected a purchasing manager/member's selection decision of a foreign supplier while past purchasing experience does not have any significant difference to purchasing decision of Thai purchasing managers. According to the positive effects of the supplier's country image, a favorable country image can increase the purchase volume of textile machinery products from those countries.

On the other hand, satisfaction with a past purchase has a no effect on the selection decision on a foreign supplier. There was, however, very high correlation between the selection criteria on a foreign supplier of textile machinery products as measured by purchasing value scales. The study yielded several important findings and answered the previously --- research questions. It was found that the selection criteria including the product price, quality, reliability of delivery, availability of after-sales service, and supplier technical skills were important to decision making for buying textile machinery products by Thai import purchasing managers.

However, Thai import purchasing managers indifferently perceived those three industrial machinery exporters—Japanese, the United States, and German exporters in supplier characteristics including supplier technical skills, supplier commercial skills, and supplier interpersonal skills, while product characteristics including product price, product quality, product performance, product durability, and product design seem to influence in purchasing decision for Thai purchasing managers.

Implications

The findings of the study provide several managerial implications for foreign supplier (exporters) of industrial machinery products, specially in the Thai market. Moreover, the findings demonstrate the usefulness and applicability of the general models of organizational buying behavior of Webster & Wind (1972), Sheth (1973), and Samli, Grewal & Mathur (1988). First, foreign suppliers who would like to sell industrial machinery products to Thai import companies need to understand the uniqueness of the Thai organizational culture.

First, the study findings concerning the selection criteria used in making a decision for buying industrial machinery products suggested that these five selection criteria, i.e. price, product quality, reliability of delivery, availability of after-sales service, and supplier technical skills, are significantly important criteria used in making such decisions by Thai import companies. In spite of the fact that many previous research studies indicated that industrial buyers generally used various criteria to evaluate and select supplier choices by focusing on price, quality, delivery, and service (Webster, 1979, Nydick & Hill, 1992). The study findings could be useful to Thai import companies in developing and modifying their evaluation and selection strategies concerning foreign suppliers, especially, when they make a decision to buy an textile machinery product. Besides, there are various criteria used to select and evaluate suppliers such as the overall reputation of the supplier, financing terms, the supplier's flexibility in adjusting to the company's needs, experience with suppliers in an analogous situation, the technical services offered, confidence in the salesmen, convenience of placing orders, data on reliability of the product, price, technical specifications, ease of

operation or use, preferences of principal users of product, training offered by the supplier, training time required, reliability of delivery, ease of maintenance, and sales service expected after the date of purchase (Lehnmann & O'Shaughnessy, 1974). In the highly competitive globalized market, Thai import companies need to regard all the important selection criteria when making a decision for buying industrial machinery products. For example, the economic and noneconomic criteria of Banvill & Dornoff (1973), and convenience-related attributes, economic-financial attributes, caliber-capacity attributes, image-dependability attributes, inter-corporate relations attributes, and service related attributes of Kiser, Rao & Rao (1975). The better the supplier and product you have, the higher benefits and profitability you gain, but all factors used to be considered.

Second, an analysis of the perceptual similarities and differences in supplier and product characteristics among Japanese, the United States, and German exporters indicated that Thai import purchasing managers perceived Japanese, the United States, and German exporters indifferently on all supplier characteristics including technical skills, commercial skills, and interpersonal skills. In addition, the countries product were perceived differently on product characteristics including the product' price, product quality, product performance, product durability, and product design. Furthermore, the analysis indicated that Japanese exporters have the highest rating in both supplier and product characteristics, followed by German, and the United States exporters. This is a confirmation of the study of Paichit (1993) that Thai import companies preferred dealing with Japanese exporters, rather than with the United States exporters. Thai import companies also preferred to deal with Japanese exporters and Korean exporters in Kraft

& Chung (1992). The findings also suggested that Thai import companies preferred dealing with Japanese exporters, rather than with German exporters. It is not surprising that the highest importing value of industrial machinery products is derived from Japan. There are some reasons why Thai import companies might have biased attitudes towards Japanese exporters. Clearly, the similarity between the Thai and Japanese cultures is one, in addition to the heavy investments by Japan in Thailand. Therefore, Japanese exporters should attempt to sustain their strength in order to be Thailand's leading industrial machinery supplier, while German and the United States exporters should improve their perceived weaknesses in both supplier and product characteristics in order to gain their competitiveness. This is especially true, since Thailand's industrial machinery market tends to grow.

Finally, the study found that a favorable country image have positively affected the purchasing decision on a foreign supplier of industrial machinery products by Thai import purchasing managers. The findings indicated that Japanese exporters have the highest rating among these three industrial machinery exporters in term of the supplier's country image, followed by the United States and German exporters. Both the country images of Japanese, the United States, and German exporters were positive relationship to the purchasing selection decision of a textile machinery foreign supplier. This means the higher level of country-image of foreign exporters is, the greater sales volume they gain. In contrast, the higher the level of country image was for German exporters, the smaller the sales volume. Japanese and the United States exporters, then, should maintain their positive country image for Thai industrial machinery importers. This because a good country image seems to be a factor that can help them increase sales

volumes in Thai markets. For German exporters, they need to find what factors help them to increase their sales volume in Thailand such as distribution channels, advertising and promotional strategies, etc. Furthermore, the prospect study suggested that satisfactory past purchases positively affected the selection decision for a foreign supplier. When industrial buyers gain experience and confidence in the products or services they supply, loyalty is created (Cunningham, 1956). Similarly, Bubb & Rest (1973) found that loyalty is one of the major determinants in industrial buying decisions. The findings indicated that satisfactory past purchasing experiences directly no affect on repeat purchases (loyalty). Therefore, textile machinery foreign suppliers should sustain the strength of both their supplier and product characteristics such as high quality of products, high performance of products, good service, and good relationships with the customers in order to create loyalty with their customers. This can create a higher volume of purchases.

Limitations

There were several limitations in the generalizability of the study's findings. The perception of only one individual of an importing firm was used to obtain the needed data. This is research limitation because usually there was more than one person participating in decision making regarding industrial machinery products. In addition, this study tested only five selection criteria. Perhaps other selection criteria were used by the Thai import purchasing managers in the present study.

Moreover, the investigation only looked at Japan, the United States, and Germany exporters to Thailand. The results, then, can not be generalized to any other industrial

machinery exporters in the same regions—such as Korean, Taiwanese, Dutch, and English exporters. Industrial machinery exporters in each country have different strengths and weaknesses in both of supplier and product attributes and this should be taken into consideration. For example, Taiwanese industrial machinery products are cheaper than Japanese, but Japanese products seem to have higher performance than their Taiwanese counterparts (Wetpanyawong, 1998).

Finally, the study's results may not be applied to importers from other different countries with different cultures because each nation has a culture unique to itself. Different cultures demonstrate cultural elements in different shapes and forms. This creates differences in individuals' perceptions, that leading to different judgments (Plummer, 1977; Wind, Douglas, & Perlmutter, 1973). Clearly, Thai importing firms have their own organizational cultures.

Recommendations for Future Research

Based on the research findings, the managerial implications, and the limitations of the study, the researcher presents the following recommendations for future research:

1. This study used the responses of only one participant in making buying decision of industrial machinery products within an importing firm's buying center. Due to the fact that there is usually more than one participant making decisions within a buying unit, surveying multiple decision participants is highly recommended.

2. The study emphasized only textile machinery products considered as finished products. The study did not investigate across the different types of products—raw material, semi-finished, and finished products comparatively. Thus, future research

should investigate across all types of products. Furthermore, the study did not specify the buying situations, which are typically classified into three different types (new tasks, modified rebuys, and straight rebuys) (Robinson, Fairs, & Wind, 1967). Future studies of organizational buying behavior in different buying situations can help researchers better understand all types of buying behaviors. The findings from such studies could be beneficial to foreign exporters who are seeking to export their products into Thai markets.

3. The study concerned the following elements:

a) five selection criteria, i.e. price, product quality, reliability of delivery, after-sales service, and supplier technical skills

b) three supplier characteristics, i.e. technical skills, commercial skills, and interpersonal skills

c) five product characteristics, i.e. product price, product quality, product performance, product durability, and product design

However, there were various other criteria used to select and evaluate foreign suppliers in other research studies. For example, ten important vendor performance characteristics are used by Wind, Green & Robinson (1968), seventeen vendor attributes by Lehman & O'Shaughnessy (1974), and twenty vendor performance attributes by Dempsey (1978). Thus, extending this research to cover various selection criteria could lead to a more useful and comprehensive understanding of Thai import companies.

4. The results of this study might not be directly applicable to other importers from different cultures. This is because culture should be viewed as a unique entity. The replication of this study in different importing country settings could be enlightening. On

the other hand, this research looked into Thailand's three major exporting machinery countries. Thus, the replication of this study in different exporting countries could generate different perspectives toward each exporter.

5. The present study focused only two individual factors, i.e. individual's perceptions of country-of-origin stereotypes and past purchasing experiences. These factors have an effect on the selection decisions of foreign suppliers. Therefore, further studies should examine the effect of other individual factors in addition to those used in this study, such as the buyer's personality; perceived role set; preference structures; motivations; cognitions; learning styles; decision styles; interpersonal skills, leadership skills, and level of education. There may be other important factors that affect industrial buying behaviors such as environmental factors, cultural factors, governmental factors, uncertainty factors, and etc.

References

Alpert,M. (1971). *Pricing Decisions*. Glenview, IL: Scott, Foresman and Company.

Anonymous, (1981). Brazil-Government Brakes Economy with Tight Money Policies; U.S. Sales Grow but Import Restrictions Limit Potential. *Business America,* 4 (23), 17-18.

Arrow, K. (1971). *Essays in the Theory of risk bearing*. Chicago: Markham.

Ary, D., Jacobs, L., & Razavieh, A. (1990). Introduction to Research in Education. (4th ed.). Orlando, Florida: Harcourt Brace College Publishers.

Bank of Thailand. (1995).

Bannister, J., & Saunders, J. (1978). UK Consumers' Attitudes Towards Imports: The Measurement of national Stereotype Image. *European Journal of marketing,* 12, 562- 570.

Banville, G., & Dornoff, R. (1973). Industrial Source Selection Behavior: An Industry Study. *Industrial Marketing Management,* 2, 251-260.

Beamish, P., Killing, J., Lecraw, D., & Crookell, H. (1991). International Management. Boston: Richard D. Irwin, Inc.

Bilkey, W., & Nes, E. (1982). Country-Of-Origin Effects on Product Evaluations *Journal of International Business Studies,* 89-99

Bonfield, E., & Speh, T. (1977). Dimensions of Purchasing's Role in Industry. *Journal of Purchasing and Materials Management*, 13, 15.

Bubb, P., & Rest, D. (1973). Loyalty as a component of the Industrial Buying Decision. *Industrial Marketing Management*, 3, 25-32.

Business Economic Department of Thailand. (1996).

Cateora, P. (1990). *International Marketing* (7th ed.). Homewood: Richard D. Irwin, Inc.

Cattin, P., Jolibert, A., & Lohnes, C. (1982). A Cross-cultural Study of Made In Concepts. *Journal of International Business Studies,* 13, 131-140.

Cavusgil, S., & Yavas, U. (1987). Supplier Selection in International Markets: A Study of Saudi Importers. *Industrial Marketing and Purchasing,* 2, 19-28.

Chao, C., Scheuing, E., Dubas, K., & Mummalaneni, V. (1993). An Assessment of Supplier Selection: Chinese Purchasing Managers' Criteria and Their Implications for Western Marketers. *International Journal of Physical Distribution & Logistics Management,* 23(8), 31-37.

Cordell, V. (1992). Effects of Consumer Preferences for Foreign Sources Products. *Journal of International Business Studies,* 23, 251-269.

Cunningham, R. (1956) Brand Loyalty: What, Where, How Much? *Harvard Business Review,* 34, 116-128.

Cunningham, R. (1961). Consumer Loyalty to Store and Brand. *Harvard Business Review,* 39, 127-137.

Darling, J. (undated). An Analysis of Consumer Attitudes Towards the Products and Marketing Practices of U.S. Manufacturers. *Unpublished and undated working paper,* Wichita State University. Wichita: Kansas.

Dempsey, W. (1978). Vendor Selection and the Buying Process. *Industrial Marketing Management,* 7, 257-267.

Deng, S. (1978). Information Searching and Supplier Selection in Import Purchasing from Developing Countries. Unpublished Ph.D. Dissertation, Boston University.

Dobler, D., Lee, L., & Burt, D. (1984). *Purchasing and Materials Management.* (4th ed.). New York: McGraw-Hill.

Dornoff, R., Tankersley, C., & White, G. (1974). Consumers' Perceptions of Imports. *Akron Business and Economic Review,* 5, 26-29.

Engle, J., Kollat, D., & Blackwell, R. (1973). *Consumer Behavior.* (2nd ed.). New York: Holt, Rinehart and Winston.

Erickson, G., Johansson, J., & Chao, P. (1984). Image Variables in Multi-Attribute Product Evaluations: Country-Of-Origin Effects. *Journal of Consumer Research,* 11, 294-299.

Etzel, M., & Walke, B. (1974). Advertising Strategy for Foreign Products. *Journal of Advertising Research,* 14, 41-44.

Feldman, W., & Carodzo, R. (1975). Industrial Buying as Consumer Behavior or the Repressed Revoluution. In D. Vinson & D. Sciglimpalia (Eds.). *The Environment of Industrialized Marketing.* Columbus, OH: Grid.

Gaedeke, R. (1973). Consumer Attitudes Toward Products 'Made In' Developing Countries. *Journal of Retailing,* 49, 13-24.

Garrett, C. (1985). U.S. Import Strategy in the Apparel Industry: Price and Nonprice Criteria Influencing Source Selection. Unpublished Ph.D. Dissertation, Georgia State University.

Ghymn, K. (1980). An Empirical Study of U.S. Import Managers' Purchasing Behavior. In Marketing of the 80's: Changes and Challenges, R. Baggozi, et al., eds. Chicago: AMA, 634-638.

Ghymn, K. (1983). The Relative Importance of Import Decision Variables. *Journal of the Academy of Marketing Science,* 11(3), 304-312.

Habte-Glorgis, B. (1986). The International Decision Process: An Interview Study. Unpublished Ph.D. Dissertation. Louisiana Technical University.

Hakansson, H., & Wootz, B. (1975). Supplier Selection in an International Environment—An Experimental Study. *Journal of Marketing Research,* 12, 235-255.

Hampton, G. (1977). Perceived Risk in Buying Products Made Abroad By American Firms. *Baylor Business Studies,* 53-64.

Han, C. (1989). Country Image: Halo or summary Construct. *Journal of Marketing Research,* 26, 222-229.

Hervey, J. (1982). Economic Stagnation and the Resurgence of Trade Restrictions. *Economic Perspectives,* 6(3), 23-35.

Hirsch, W. (1960). Decision Making in Industrial Marketing. *Journal of Marketing,* 24, 21-27.

Hokey, M. (1994). International Supplier Selection: A Multi-attribute Utility Approach. *International Journal of Physical Distribution & Logistics Management,* 24(5), 24-33.

International Financial Statistics: Yearbook (1990). Washington, D.C.: International Monetary Fund.

International Financial Statistics: Yearbook (1992). Washington D.C.: International Monetary Fund.

Jackson, B. (1985). Build Customer Relationships that Last. *Harvard Business Review,* 63, 120-128.

Jackson, D., Burdick, R., & Keith, J. (1985). Purchasing Agents' Perceived Importance of Marketing Mix Components in Different Industrial Purchase Situations. *Journal of Business Research,* 13, 361-373.

Jefri, A. (1989). *An Empirical Investigation of the Effects of Individuals, Organizational, and Situational Factors on a New Source Selection Decision in International Markets: A Case of United States Importers of Consumer Goods.* Ph.D. Dissertation, The University of Alabama.

Johansson, J. (1989). Determinants and Effects of the Use of "Made In" Labels. *International Marketing Review,* 6, 47-58.

Jolibert, C., & Lohnes, A. (1982). A Cross-Cultural Study of "Made in" Concepts. *Journal of International Business Studies,* 13(3), 131-141.

Keown, C. (1985). Asian Importers' Perceptions of American Manufacturers. *International Marketing Review,* 2 48-54.

Khanna, S. (1986). Asian Companies and the Country Stereotype Paradox: An Empirical Study. *Columbia Journal of World Business,* 21, 29-38.

Kincaid,W. (1970). *A Study of the Perception of Selected Brands of Products as Foreign or American and Attitudes Toward Such Brands.* Ph.D. Dissertation, The University of Texas at Austin.

Kiser, G., Rao, C., & Rao, S. (1975). Vendor Attribute Evaluations of Buying Center Members other than Purchasing Executives, *Industrial Marketing Management,* 4, 45-54.

Krishnakumar, P. (1974). *An Exploratory Study of the Influence of country of Origin on the Product Images of Persons from Selected Countries.* Ph.D. Dissertation, The University of Florida.

Kuntonburt, C. (1997). Personal Interview.

Lawrence, C., Marr, N., & Prendergast, G. (1992). Country-of-Origin Stereotyping: A Case in the New Zealand Motor Vehicle Industry. *European Journal of Marketing,* 26, 37-51.

Lee, J. (1966). Cultural Analysis in Overseas Operations. *Harvard Business Review,* 44, 106-114.

Lehman, D., & O'Shaughnessy, J. (1974). Difference in Attribute Importance for Different Industrial Products. *Journal of Marketing,* 38, 36-42.

Lehnman, D., & O'Shaughnessy, J. (1982). Decision Criteria Used in Buying Different Categories of Products. *Journal of Purchasing and Materials Management*, 28, 9-14.

Levitt, T. (1965). *Industrial Purchasing Behavior: A Study of Communication Effects*. Boston: Harvrad University.

Lillis, C., & Narayana, C. (1974). Analysis of 'Made In' Product Images—An Exploratory Study. *Journal of International Business Studies*, 119-127.

Lipstein, B. (1959). *The Dynamics of Brand Loyalty and the Brand Switching*. The Paper Presented at the Fifth Annual Conference of the Advertising Research Foundation.

McGuinness, N., Campbell, N., & Leontiades, J. (1991). Selling Machinery to China: Chinese Perceptions of Strategies and Relationships. *Journal of International Business Studies*, 22, 187-207.

Massy, W. (1966). Brand and Source Loyalty as Bases for Market Segmentation. In J.W. Newman (ed.), *On Knowing the Consumer*, (p.169-172). New York: John Wiley & Sons.

Miller, G. (1956). The Magical Number, Seven, Plus or Minus Two: Some Limitations on Our Capacity for Processing Information. *Psychological Review*, 63, 81-97.

Monroe, K. (1973). Buyers' Subjective Perceptions of Price. *Journal of Marketing Research*, 70-80.

Monroe, K., & William, D. (1988). A Research Program for Establishing the Validity of the price Quality Relationship. *Journal of the Academy of Marketing Science*, 16, 151- 168.

Morello, G. (1984). The Made-in Issue—A Comparative Research on the Image of Domestic and Foreign Products. *European Research*, 95-100.

Morris, M., & Holman, J. (1988). Source Loyalty in Organizational Markets: A Dynamic perspective. *Journal of Business Research*, 16, 117-131.

Mummalaneni, Dubas, V., Chao, K., & Chiang-nan, (1996). Chinese Purchasing Managers' Preference and Trade-offs in Supplier Selection and Performance Evaluation. *Industrial Marketing Management*, 25(2), 115-124.

Nagashima, A. (1970). A Comparison of Japanese and U.S. Attitudes Toward Foreign Products. *Journal of Marketing*, 34, 68-74.

Nagashima, A. (1977). A Comparative 'Made In' Product Image Survey Among Japanses Businessmen. *Journal of Marketing,* 95-100.

Negandhi, A. (1978). International Management. In Peter, J. Thomas & R. Waterman (Eds.). *Search of Excellence.* New York: Harper and Row Publishers, Inc.

Niffenegger, P., White, J., & Marmet, G. (1982). How European Retailers View American Imported Products: Result of a Product Image Survey. *Journal of the Academy of Marketing Science,* 10, 281-291.

Nydick, R., & Hill, R. (1992). Using the Analytic Hierarchy Process to Structure the S Supplier Selection Procedure. *International Journal of Purchasing and Materials Management,* 28(2), 31-36.

Onkvisit, Shaw, S., & John, J. (1988). Marketing Barriers in International Trade. *Business Horizons,* 31(3), 64-72.

Peters, M., & Venkatesan, M. (1973). Exploration of Variables Inherent in Adopting an Industrial Product. *Journal of Marketing Research,* 10, 312-315.

Petrock, F., & Gamboa, V. (1976). Expectancy Theory and Operant Conditioning: A Conceptual Comparison. In W. Nord (Ed.). *Concepts and Controversies in Organizational Behavior.* California: Goodyear Publishing Company, Inc.

Plummer, J. (1977). Consumer Focus in Cross-National Research. *Journal of Advertising,* 6, 5-15.

Porter, L., & Lawler, E. (1968). *Management Attitudes and Performance.* Homewood, IL: Irwin.

Puto C., Patton, W., & King, R. (1985). Risk Handling Strategies in Industrial Vendor Selection Decisions. *Journal of Marketing,* 49, 89-98.

Reichheld, F. (1993). Loyalty-Based Management. *Harvard Business Review,* 71, 64-73.

Reierson, C. (1966). Are Foreign Products Seen as National Stereotypes? *Journal of Retailing,* 33-40.

Rick, D. (1983). *Big Business Blunders.* Homewood, IL: Dow Jones-Irwin.

Robinson, P., Faris, C., & Wind, Y. (1967). *Industrial Buying and Creative Marketing.* Boston: Allyn and Bacon, Inc.

Samiee, S. (1994). Customer Evaluation of Products in a Global Market. *Journal of International Business Studies,* 587.

Samli, C. (1968). Critical Problems and Data Needs in International Marketing Research.
  Business and Economic Dimensions, 4, 9-15.

Samli, A., Grewal, D., & Mathur, S. (1988). International Industrial Buyer Behavior: An Exploration and a Proposed Model. *Academy of Marketing Science,* 16, 19-29.

Schiffman, L., & Kanuk, L. (1994). Consumer Behavior. (2nd ed.). New Jersey: Prentice- Hall, Inc.

Schooler, R. (1965). Product Bias in the Central American Common Market. *Journal of Marketing Research,* 2, 394-397.

Schooler, R. (1971). Bias Phenomena Attendant to the Marketing of Foreign Goods in the U.S. *Journal of International Business Studies,* 71-80.

Schooler, R., & Wildt, A. (1968). Elasticity of Product Bias. *Journal of Marketing Research,* 5, 78-81.

Sewwney, Mathews, & Wilson, (1973).

Sheth, J. (1973). A Model of Industrial buyer Behavior. *Journal of Marketing,* 37, 50-56.

Shipley, D. (1985). Resellers' Supplier Selection Criteria for Different Consumer Products. *European Journal of Marketing,* 19(7), 26-36.

Spekman, R., &Stern, L. (1979). Environmental Uncertainty and Buying Group Structure: An Empirical Investigation. *Journal of Marketing,* 43, 54-64.

Swalm, R. (1966). Utility Theory—Insights into Risk Taking. *Harvard Business Review,* 44, 39-60.

Sweeney, T., Mathews, H., & Wilson, D. (1973). *An Analysis of Industrial Buyers' Risk Reducing Behavior: Some Personality Correlates.* Proceedings of the American Marketing Association, Chicago: American Marketing, 217-221.

Thailand Economic Indicator (2002). Bangkok Bank Research Department.

Tongberg, R. (1972). An Empirical Study of Relationships Between Dogmatism and Consumer Attitudes Toward Foreign Products. Ph.D. Dissertation, The Pennsylvania State Univeristy.

Vernon-Wortzel, H., Wortzel, L., & Deng, S. (1988). Do Neophyte Exporters Understand Importers? *Columbia Journal of World Business,* 23, 49-56.

Wang, C. (1978). Attitudes of U.S. Purchasing managers Toward Industrial Products Manufactured in Selected European Nations. *Journal of International Business Studies,* 81-90.

Wang, C., & Lamb, C. (1983). The Impact of Selected Environment Forces upon Consumers' Willingness to Buy Foreign Products. *Journal of Academy of Marketing Science,* 11, 71-84.

Webster, F. (1965). Modeling the Industrial Buying Process. *Journal of Marketing Research,* 2, 370-376.

Webster, F. (1979). *Industrial Marketing Strategy.* New York: Wiley.

Webster, F., & Wind, Y. (1972). *Organizational Buying Behavior.* Englewood Cliffs: Prentice-Hall, Inc.

White, P. (1979). Attitudes of U.S. Purchasing Managers Toward Industrial Products Manufactured in Selected Western European Nations. *Journal of International Business Studies,* 10, 81-91.

White, P., & Cundiff, E. (1978). Assessing the Quality of Industrial Products. *Journal of Marketing,* 42, 80-86.

Wilson, D. (1971). Industrial Buyers' Decision Making Styles. *Journal of Marketing Research,* 8, 433-436.

Wilson, D., Mathews, H. (1971). Impact of Management Information Systems upon Purchasing Decision Making. *Journal of Purchasing,* 48-56.

Wilson, D., Mathews, H., & Sweeney, T., (1971). *Industrial Buyer Segmentation: A Psychographic Approach.* Chicago: American Marketing.

Wind, Y. (1970). Industrial Source Loyalty. *Journal of Marketing Research,* 7, 450-457.

Wind, Y., Douglas, S., & Perlmutter, H. (1973). Guidelines for Developing International Marketing Strategies. *Journal of Marketing,* 37, 38-46.

Wind, Y., Green, P., & Robinson, P. (1968). The Determinants of Vendor Selection: The Evaluation Function Approach. *Journal of Purchasing,* 4, 29-41.

Wind, Y., & Thomas, R. (1980). Conceptual and Methodological Issues in Organizational Buying Behavior. *European Journal of Marketing,* 14, 239-263.

Yaprak, A. (1978). Formulating a Multinational Marketing Strategy: A Deductive Cross-National Consumer Behavior Model. Ph.D. Dissertation, Georgia State University, College of Business Administration.

Yavas, U., Cavusgil, T., & Tuncalp, S. (1987). Assessments of Selected Foreign
    Suppliers by Saudi Importers: Implications for Exporters. *Journal of Business
    Research,* 15, 237-246.

APPENDIX A
(QUESTIONNAIRE ENGLISH VERSION)

1. What is your position in the organization? Please indicate the level of your position in the organization, and name your position.

    ....   Upper management (President, Managing Director)
    ....   Middle management (Managers)
    ....   Lower management (Supervisor)
    ....   Staffs (Executives)

2. Please indicate the degree of participation you had contributed for the most recent purchase decision.

<div align="center">

Degree of Participation

Low				High
1	2	3	4	5

</div>

3. Which of the levels of product's value (in baht) that you had participated in making decision of the last purchase of industrial machinery product to your firm?

    _____   Less than 1,000,000
    _____   1,000,001 – 4,000,000
    _____   4,000,001 – 7,000,000
    _____   7,000,001 – 10,000,000
    _____   more than 10,000,000

4. Which of the following criteria that you use to evaluate foreign suppliers when buying industrial machinery products? Please indicate the degree of importance of each criteria.

Selection Criteria	Not Considered as Criteria	Extremely Unimportant Criteria	Unimportant Criteria	Important Criteria	Very Important Criteria	Extremely Important Criteria
Product's Price						
Product's Quality						
Reliability Of delivery						
Availability Of after-sales Service						
Supplier's Technical Skills						

5. In last five year (1996-2001), did you purchase/import industrial machinery products from Japan?

    _____   Yes,please further answer questions 6 and 7.
    _____   No, please skip to answer questions 8.

6. Please estimate the yearly total amount (in baht) of importing Japanese industrial machinery products in last five years (1996-2001).

_____ Less than 1,000,000   _____ 1,000,001 – 4,000,000
_____ 4,000,001 – 7,000,000   _____ 7,000,001 – 10,000,000
_____ more than 10,000,000

7. Please indicate your perceptions toward Japanese exporters, and their machinery products on the following characteristics:

Japanese Exporters

Supplier Characteristics:	Low				High
Technical skills	1	2	3	4	5
Commercial skills	1	2	3	4	5
Interpersonal skills	1	2	3	4	5

Product's Characteristics:	Low				High
Product's price	1	2	3	4	5
Product's quality	1	2	3	4	5
Product's performance	1	2	3	4	5
Product's durability	1	2	3	4	5
Product's design	1	2	3	4	5

8. In last five years (1996-2001), did you purchase/import industrial machinery products from the United States?

_____ Yes, please further answer questions 9 and 10.
_____ No, please skip to answer questions 11.

9. Please estimate the yearly total amount (in baht) of importing the United States industrial machinery products in last five years (1996-2001).

_____ Less than 1,000,000
_____ 1,000,001 – 4,000,000
_____ 4,000,001 – 7,000,000
_____ 7,000,001 – 10,000,000
_____ more than 10,000,000

10. Please indicate your perceptions toward the United States exporters, and their machinery products on the following characteristics:

The United States Exporters

Supplier Characteristics:	Low				High
Technical skills	1	2	3	4	5
Commercial skills	1	2	3	4	5
Interpersonal skills	1	2	3	4	5

Product's Characteristics:	Low				High
Product's price	1	2	3	4	5
Product's quality	1	2	3	4	5
Product's performance	1	2	3	4	5

| Product's durability | 1 | 2 | 3 | 4 | 5 |
| Product's design | 1 | 2 | 3 | 4 | 5 |

11. In last five years (1996-2001), did you purchase/import industrial machinery products from Germany?

_____ Yes, please further answer questions 12 and 13.
_____ No, please skip to answer questions 14.

12. Please estimate the yearly total amount (in baht) of importing German industrial machinery products in last five years.

_____ Less than 1,000,000
_____ 1,000,001 – 4,000,000
_____ 4,000,001 – 7,000,000
_____ 7,000,001 – 10,000,000
_____ more than 10,000,000

13. Please indicate your perceptions toward German exporters, and their machinery products on the following characteristics:

German Exporters

Supplier Characteristics:	Low				High
Technical skills	1	2	3	4	5
Commercial skills	1	2	3	4	
Interpersonal skills	1	2	3	4	5

Product's Characteristics:	Low				High
Product's price	1	2	3	4	5
Product's quality	1	2	3	4	5
Product's performance	1	2	3	4	5
Product's durability	1	2	3	4	5
Product's design	1	2	3	4	5

14. For the selection decision of the foreign supplier of industrial machinery products, do the supplier's country image have and effect on your buying decision?

_____ Yes, please further answer question 15 and 16.
_____ No, please skip to answer question 17.

15. Among the following countries of exporting firms who has the best country image based on your own perceptions? Please rank number 1 for the first place of the best country image, followed number 2, and 3 for the second, third place of the country images.

_____ Japanese exporters
_____ The United States exporters
_____ German exporters

16. Please give an estimate percentage of the purchase of importing industrial machinery products from the three following exporters to the yearly total value of your company's imports of industrial machinery products in last five years (1996-2001).

% of importing industrial machinery products	None (0%)	1-25%	26-50%	51-75%	76-100%
Japanese Exporter					
The United States Exporters					
German Exporters					

17. In 1996-2001, who was the largest supplier exporting industrial industrial machinery products to your company? Please indicate the country of your largest supplier who exported industrial machinery products to your firm.

_____ Japan
_____ The United States
_____ Germany
_____ Other country, please specify _____

18. Please indicate the level of percentage of the purchase form this supplier (from question 17) to the yearly total value of your company's imports of industrial machinery products in 1996-2001?

_____ 1 – 25%
_____ 25 – 50%
_____ 51 – 75%
_____ 76 – 100%

19. Please indicate the degree of satisfaction of past purchasing experience in 1995 with the above supplier (from question 19) in overall of both supplier and its product characteristics.

	Very Satisfactory		Neutral		Very Unsatisfactory
Supplier's characteristics	1	2	3	4	5
Product's characteristics	1	2	3	4	5

20. In 1996, is the largest supplies exporting industrial machinery products to your company the same exporter in last year 1995 (from question 19)?

_____ Yes
_____ No

21. What were your annual sales in 1996 (in Baht)?

_____ less than 1,000,000
_____ 1,000,001 – 40,000,000
_____ 40,000,001 – 70,000,000
_____ 70,000,001 – 100,000,000
_____ more than 100,000,000

22. The following amount of purchase (in Baht), which is the level of your firm's total imports in 1996?

_____	less than 1,000,000
_____	1,000,001 – 10,000,000
_____	10,000,000 – 20,000,000
_____	20,000,001 – 30,000,000
_____	more than 30,000,000

23. The following amount of purchase (in Baht), which is the level of your firm's total imports of industrial machinery products in 1996?

_____	less than 1,000,000
_____	1,000,001 – 4,000,000
_____	4,000,001 – 7,000,000
_____	7,000,001 – 10,000,000
_____	more than 10,000,000

24. How long has your company been in the importing business?

_____	1 – 5 years
_____	6 – 10 years
_____	11 – 15 years
_____	more than 15 years

25. Your sex:

_____ Male   _____ Female

26. Your age:

_____	under 25	_____	26 – 35
_____	36 – 45	_____	46 – 55
_____	over 55		

27. Which is your level of education?

_____	Elementary School
_____	High School
_____	Bachelor Degree
_____	Higher than Bachelor Degree, please

specify_____

APPENDIX B
(QUESTIONNAIRE THAI VERSION)
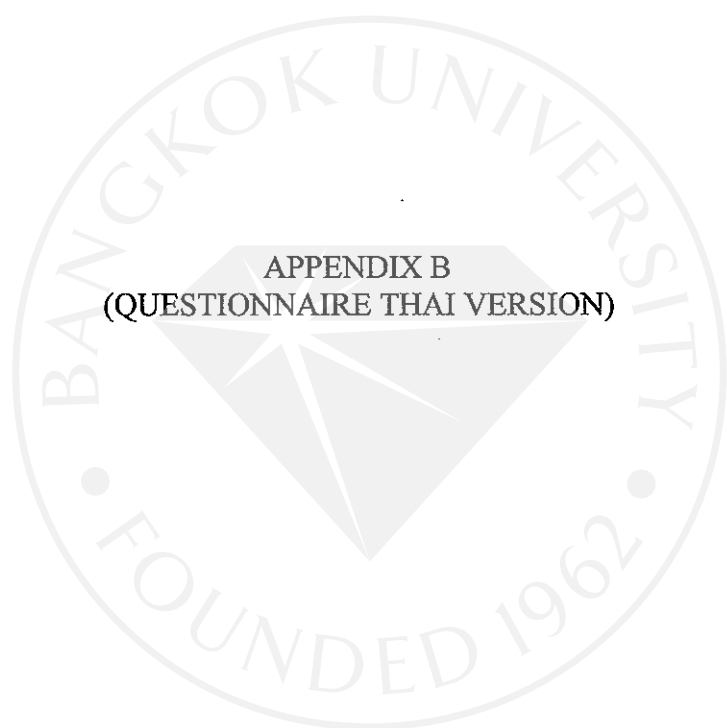
Appendix B: Questionnaire Thai Version

แบบสอบถาม

1) กรุณาระบุระดับการบริหารงานและตำแหน่งของท่านในองค์กร

☐ระดับสูง   ☐ระดับกลาง   ☐ระดับต้น   ☐พนักงานบริหาร

2) ท่านมีส่วนร่วมในการตัดสินใจมากน้อยเพียงใดในการสั่งซื้อสินค้าเครื่องจักรกลที่นำเข้าจากต่างประเทศ

☐น้อยที่สุด   ☐น้อย   ☐ปานกลาง   ☐มาก   ☐มากที่สุด

3) กรุณาระบุจำนวนมูลค่าสินค้าเครื่องจักรกล ที่ท่านได้มีส่วนร่วมในการตัดสินใจซื้อครั้งล่าสุด

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐4–7 ล้านบาท

☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

4) ท่านใช้หลักการใดดังต่อไปนี้ในการประเมินผู้จัดส่งสินค้าเครื่องจักรกลจากต่างประเทศ
(กรุณาระบุความสำคัญของแต่ละหลักการเลือกที่ใช้เป็นเกณฑ์ในการพิจารณาผู้จัดส่งสินค้า)

หลักการในการเลือก	สำคัญน้อยมาก	สำคัญน้อย	สำคัญ	สำคัญมาก	สำคัญมากที่สุด
- ราคาสินค้า	☐	☐	☐	☐	☐
- คุณภาพสินค้า	☐	☐	☐	☐	☐
- การจัดส่งสินค้า	☐	☐	☐	☐	☐
- การบริการหลังการขาย	☐	☐	☐	☐	☐
- เทคโนโลยีของผู้จัดส่งสินค้า	☐	☐	☐	☐	☐

5) ในระยะ 5 ปี (2540 – 2544) ท่านได้มีการสั่งซื้อหรือนำเข้าสินค้าเครื่องจักรกลจากประเทศญี่ปุ่นหรือไม่

☐ซื้อ (กรุณาตอบคำถามข้อ 6 และ 7)   ☐ ไม่ได้ซื้อ (กรุณาข้ามไปตอบคำถามข้อ 8)

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6) ในระยะเวลา 5 ปี (2540 – 2544) ท่านได้สั่งซื้อหรือนำเข้าสินค้าเครื่องจักรกลจากประเทศญี่ปุ่นหรือ
ไม่

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท

☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

7) กรุณาประเมินผู้จัดส่งสินค้าญี่ปุ่น และเครื่องจักรกลที่นำเข้าจากประเทศญี่ปุ่นตามหลักการดังต่อไป
นี้

ลักษณะของผู้จัดส่งสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ทักษะทางด้านเทคโนโลยี	☐	☐	☐	☐	☐
- ทักษะทางการค้า	☐	☐	☐	☐	☐
- ทักษะทางความสัมพันธ์ติดต่อ	☐	☐	☐	☐	☐

ลักษณะของสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ราคาสินค้า	☐	☐	☐	☐	☐
- คุณภาพสินค้า	☐	☐	☐	☐	☐
- ประสิทธิภาพการทำงานของสินค้า	☐	☐	☐	☐	☐
- ความทนทานของสินค้า	☐	☐	☐	☐	☐
- รูปแบบของสินค้า	☐	☐	☐	☐	☐

8) ในระยะ 5 ปี (2540 – 2544) ท่านได้มีการสั่งซื้อหรือ นำเข้าสินค้าเครื่องจักรกลจากประเทศสหรัฐ
อเมริกาหรือไม่

☐ ซื้อ (กรุณาตอบคำถามข้อ 9 และ 10)   ☐ ไม่ได้ซื้อ (กรุณาข้ามไปตอบคำถามข้อ 11)

9) ในระยะ 5 ปี (2540 – 2544) ท่านได้สั่งซื้อหรือนำเข้าเครื่องจักรกลจากประเทศสหรัฐอเมริกาเป็นมูล
ค่าเท่าใด

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท

☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

10) กรุณาประเมินผู้จัดส่งสินค้าสหรัฐอเมริกา และเครื่องจักรกลที่นำเข้าจากประเทศสหรัฐอเมริกาตาม
หลักตามหลักการดังต่อไปนี้

ลักษณะของผู้จัดส่งสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ทักษะทางด้านเทคโนโลยี	☐	☐	☐	☐	☐
- ทักษะทางการค้า	☐	☐	☐	☐	☐
- ทักษะทางความสัมพันธ์ติดต่อ	☐	☐	☐	☐	☐

ลักษณะของสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ราคาสินค้า		☐	☐	☐	☐	☐
- คุณภาพสินค้า		☐	☐	☐	☐	☐
- ประสิทธิภาพการทำงานของสินค้า	☐	☐	☐	☐	☐
- ความทนทานของสินค้า		☐	☐	☐	☐	☐
- รูปแบบของสินค้า		☐	☐	☐	☐	☐

11) ในระยะ 5 ปี (2540-2544) ท่านได้มีการสั่งซื้อหรือ นำเข้าสินค้าเครื่องจักรกลจากประเทศเยอรมัน
หรือไม่

☐ ซื้อ (กรุณาตอบคำถามข้อ 12 แล 13)   ☐ ไม่ได้ซื้อ (กรุณาข้ามไปตอบคำถามข้อ 14)

12) ในระยะ 5 ปี (2540 – 2544) ท่านได้สั่งซื้อหรือนำเข้าเครื่องจักรกลจากประเทศเยอรมันเป็นมูลค่า
เท่าใส

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท

☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

13) กรุณาประเมินผู้จัดส่งสินค้าเยอรมัน และเครื่องจักรกลที่นำเข้าจากประเทศเยอรมันตามหลักการดัง
ต่อไปนี้

ลักษณะของผู้จัดส่งสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ทักษะทางด้านเทคโนโลยี	☐	☐	☐	☐	☐
- ทักษะทางการค้า	☐	☐	☐	☐	☐
- ทักษะทางความสัมพันธ์ติดต่อ	☐	☐	☐	☐	☐

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ลักษณะของสินค้า	น้อยมาก	น้อย	ปานกลาง	มาก	มากที่สุด
- ราคาสินค้า	☐	☐	☐	☐	☐
- คุณภาพสินค้า	☐	☐	☐	☐	☐
- ประสิทธิภาพการทำงานของสินค้า	☐	☐	☐	☐	☐
- ความทนทานของสินค้า	☐	☐	☐	☐	☐
- รูปแบบของสินค้า	☐	☐	☐	☐	☐

14) ในการตัดสินใจเลือกผู้จัดส่งสินค้าเครื่องจักรกลจากต่างประเทศ ภาพพจน์ของประเทศผู้จัดส่ง
(Country's image of exporters) มีผลกระทบต่อการตัดสินใจซื้อสินค้าของท่านหรือไม่

    ☐ มี (กรุณาตอบคำถามข้อ 15 และ 16)   ☐ ไม่มี (กรุณาข้ามไปตอบคำถามข้อ 17)

15) ในทัศนคติของท่าน ท่านคิดว่าประเทศผู้จัดส่งสินค้าเครื่องจักรกลดังต่อไปนี้ มีภาพพจน์ดีเป็น
อันดับหนึ่ง, อันดับสอง, และอันดับสาม (กรุณาใส่หมายเลข 1,2 และ 3 ตามลำดับ)
    ....ผู้จัดส่งสินค้าญี่ปุ่น ....ผู้จัดส่งสินค้าสหรัฐอเมริกา ....ผู้จัดส่งสินค้าเยอรมัน

16) ในระยะปี (2540 – 2544) ท่านได้นำสินค้าเครื่องจักรกลจากประเทศดังต่อไปนี้ เป็นมูลค่าเท่าใด
กรุณาประเมินเป็น (%)

นำเข้าจากประเทศ	มูลค่า (บาท)	คิดเป็นอัตราร้อยละ (%)				
		0%	1-25%	26-50%	51-75%	76-100%
- ญี่ปุ่น	....	☐	☐	☐	☐	☐
- สหรัฐอเมริกา	....	☐	☐	☐	☐	☐
- เยอรมัน	....	☐	☐	☐	☐	☐

17) ระหว่างปี 2540 – 2544 ผู้จัดส่งสินค้าเครื่องจักรกลจากประเทศใดดังต่อไปนี้ เป็นผู้ค้ารายใหญ่ที่สุด
ของบริษัทท่าน

    ☐ญี่ปุ่น   ☐ สหรัฐอเมริกา   ☐ เยอรมัน   ☐ประเทศอื่น ๆ โปรดระบุ...................

18) จากคำถามข้อ 17 ท่านได้สั่งซื้อสินค้าเครื่องจักรกลจากประเทศดังกล่าวเป็นจำนวนมูลค่าเท่าใด
(เป็นเงินบาท) ใน ระหว่างปี 2540-2544 คิดเป็นกี่% ของมูลค่าสินค้าเครื่องจักรกลที่นำเข้าจากต่าง
ประเทศทั้งหมด

☐1-25%   ☐ 26-50%   ☐ 51-75%   ☐ 76-100%

19) จากคำถามข้อ 18 กรุณาระบุระดับความพึงพอใจของท่านที่มีต่อผู้จัดส่งสินค้าเครื่องจักรกลจาก
ประเทศดังกล่าวข้างต้นนี้ โดยประเมินจากลักษณะของผู้จัดส่งสินค้า และลักษณะของสินค้าซึ่งพิจารณา
ในปี 2540-2544

- *ลักษณะของผู้จัดส่งสินค้า*

☐ พอใจน้อยมาก   ☐พอใจน้อย   ☐พอใจ   ☐พอใจมาก   ☐พอใจมากที่สุด

- *ลักษณะของสินค้า*

☐ พอใจน้อยมาก   ☐พอใจน้อย   ☐ พอใจ   ☐พอใจมาก   ☐พอใจมากที่สุด

20) ในปี 2544 ผู้จัดส่งสินค้าเครื่องจักรกลรายใหญ่ที่สุดของบริษัทท่านเป็นรายเดียวกันกับปี 2543 หรือ
ไม่

☐ ใช่   ☐ ไม่ใช่

21) ท่านมียอดขายประจำปี 2544 เท่าใด

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท
☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

22) ท่านมียอดนำเข้าประจำปี 2544 เท่าใด

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท
☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

23) ท่านมียอดนำเข้าเฉพาะสินค้าเครื่องจักรกลประจำปี 2544 เท่าใด (มูลค่าเป็นเงินบาท)

☐ น้อยกว่า 1 ล้านบาท   ☐ 1-4 ล้านบาท   ☐ 4-7 ล้านบาท
☐ 7-10 ล้านบาท   ☐ มากกว่า 10 ล้านบาท

24) บริษัท ของท่านดำเนินธุรกิจนำเข้ามานานเท่าใด

☐ 1-5 ปี ☐ 6-10 ปี ☐ 11-15 ปี ☐ มากกว่า 15 ปี

25) เพศ ☐ ชาย ☐ หญิง

26) อายุ ☐ ต่ำกว่า 25 ปี ☐ 26-35 ปี ☐ 36-45 ปี ☐ 46-55 ปี ☐ มากกว่า 55 ปี

27) การศึกษา

☐ ประถมศึกษา ☐ มัธยมศึกษา ☐ ปริญญาตรี
☐ สูงกว่าปริญญาตรี โปรดระบุ.............

@@@@@@@@@@@@@