

# OPERATIONAL COMPETITIVENESS DEVELOPMENT IN TURBULENT BUSINESS ENVIRONMENT: A CASE STUDY IN THAILAND FINE GOLD JEWELRY EXPORT INDUSTRY

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## ABSTRACT

The purpose of this paper is to identify and analyze strategy towards Thailand production service industry. Various tools are applied in the paper, including five force analysis, diamond of nation, and sense and respond method with CFI models. The analysis results show that Thai fine gold jewellery exporter should concern on value added and customer requirement; focus on product development, networking, cooperation between Thai organizers and lobbying; pay more attention to marketing orientation than personal judgment. The benefit of combining five force and diamond of nation model to analyse the strategic condition can be proved in this study.

## KEYWORDS

five forces analysis, sustainable competitiveness, sense and respond, critical factor index (CFI), fine gold jewellery industry industry.

## Introduction

Gem and Jewellery are the main export production of Thailand. According to information gathered from The Gem and Jewellery Institute of Thailand (Public Organization), the portion of the export Thai fine gold jewellery within the overall industry has declined from 52.4% in the year 2005 to 25.5% in 2009. If the performance of Thai fine gold jewellery does not improve in the near future, the number of fine gold jewellery manufacturing companies will decrease and many jobs will be lost.

This research is intended to study the current situation of the Thai fine gold jewellery export industry and its purpose is to understand the actually existing circumstances of the industry. It aims to satisfy the objective of understanding the competitiveness of the

Thai fine gold jewellery export industry. The research will apply Porter's competitive strategy frameworks, sense and respond method, the national diamond of competitiveness and the five forces model as the main tools for analysis.

## Literature review

This research is shaped by five force analysis, diamond of national, sense and response analyse, and nature of Thai fine gold jewellery industry in defining frameworks for analysing the competitiveness of an industry. These are defined and discussed in this section.

Competitive Strategy: according to Michael Porter [1], "Competitive strategy is the search for a favourable competitive position in an industry,

the fundamental arena in which competition occurs. Competitive strategy aims to establish a profitable and sustainable position against the forecast that determine industry competition". [1] He classifies two generic competitive strategies as cost leadership and differentiation. There are some arguments towards using generic strategies such as "Companies try to outperform their rivals to grab a greater share of existing demand. As the market space gets crowded prospects for profits and growth are reduced. Products become commodities, and cutthroat competition turns the ocean bloody" [2].

Five Forces Analysis: this was developed by Porter in 1979 to examine the competitiveness and attractiveness of markets. Five force analyses involve: the threat of substitute products, the threat of the entry of new competitors, the intensity of competitive rivalry, the bargaining power of customers and the bargaining power of suppliers [3]. Some argue that there is no relation between buyers, competitors and suppliers. Brandenburger and Nalebuff [4] feel that five forces analysis does not do enough to analyse the attractive of the market and need to add complementors in to it.

The Diamond of National Competitiveness: Another work of Michael Porter invented to analyse the environment, consisted of four major attributes, which are: factor conditions; demand conditions; related and supporting industries; and firm strategy, structure, and rivalry [1]. Literature argued that the sustained prosperity of the country may be achieved without strong diamonds in cases in which [5], for example, the country focuses heavily on oversee direct investment or else has strength through inward investment which does not show the real competitiveness of the own country.

Sense and respond: The term sense and respond (S&R) first appeared in 1992 by Haeckel [6]. In 1999 he created new business designs as adaptive enterprise by developing sense and respond managerial framework, which focuses on customer-back behaviour and its model, should be available to cope with the post-industrial environment of unpredictable change [7].

The S&R thinking is developed by Bradley and Nolan [8] and Markides [9] to analyse dynamic business strategies. S&R has contribution to respond the world where it is harder to effectively make decisions and implement them under uncertain business situations in the new economy [10]. Mahadevan et al. [11] propose that S&R level is the highest level in service business activities and decisions.

Therefore, S&R approach is required in developing strategic plans when facing unpredictable and

fast changing economic environment [12, 13]. The ability to quickly adjusting processes will also become a decisive factor in the concurrent economy.

The fine gold jewellery: Gems and jewellery play a significant role in the Thai economy and represent 6.42% of overall export volume for the year 2009. Fine gold jewellery is a sub sector of this industry and it represents 25.5% of the total industry. The characteristics of this industry include low levels of pollution and environmental problems, matching the nature of Thai people insofar as it rewards calmness and skilled attention to detail, while Thai goldsmiths also benefit from techniques that have been invented by ancestors and passed from generation to generation [14].

There are three major benefits that Thailand are gains from this industry: the large amount of employment, both direct employment in the industry and indirect employment in supporting industries, representing approximately 1.3 million people [15]; high levels of value added and the inflow of large amounts of foreign currency into the Kingdom. Recently Thai government try to promote product design, and value added since Thai fine gold jewellery are rely on self-product design concept rather than study customer demand, and lack of value creation.

Integrating these forms of analysis into a conceptual framework describing the nature of the research reported here reveals the following:

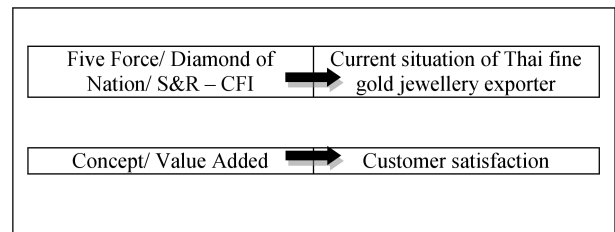


Fig. 1. Conceptual Framework.

## Research methodologies

An initial period of secondary research and literature review established the parameters for this research and this was then conducted through in-depth personal interviews. The purpose the interviewing was to review current situation of Thai fine gold jewellery in order to find the correlation between the literature and reality. Extensive notes were taken during interviews and these were subsequently transcribed for further analysis.

The period of interviewing was from November 2009 to February 2010 and a total of sixty interviews were conducted. Although a larger number of

interviews would have been probable, sixty people represent a significant proportion of knowledgeable people within the industry and the researchers are confident that an accurate and fair representation of the industry has been gained. The snowball method was used in selection process; the latter can be problematic in that it has a tendency to create a sample that is overly homogeneous.

However, since the population of the industry is not very large, it is considered that this problem has been contained. In addition, owing to the limited population size, non-response bias has been avoided. The result has been used as a row data for five force and diamond of nation model.

A set of questionnaire has been distributed to check the reaction toward crisis business condition and analyses by S&R model. The S&R models can provide decision-making support in strategic, collaborative, and customer-back to manufacturing companies. In order to implement sense and respond method, critical factor index (CFI) is introduced in this study as an important managerial tool to interpret and evaluate the critical factors of strategic adjustment which can support the strategic decision-making phase [16].

Four key factors of enterprise resource index include knowledge & technology management (PT), processes & work flows (PC), organizational systems (OR) and information systems (IT), are introduced into S&R models to analyse CFI of case companies. 21 critical factor attributes are included to analysis four main factors of enterprise resources which can be seen in Fig. 2.

This paper improves the S&R models and makes a modification of the CFI models to evaluate the internal resource of case companies which can be shown as follows.

Therefore, this paper improves the Sense and Resource model and makes a modification which can be shown in the Eqs. (1)–(4) as follow:

$$\text{Gap index (GI)} = \left| \frac{\text{Avg}(\text{experience}) - \text{Avg}(\text{expectation})}{10} - 1 \right|, \quad (1)$$

$$\text{Direction of development (DD)} = |(\text{Better} - \text{Worse}) \times 0.9 - 1|, \quad (2)$$

$$\text{Importance index (II)} = \frac{\text{Avg}(\text{expectation})}{10}, \quad (3)$$

$$\text{CFI} = \frac{\sqrt{\frac{1}{n} \times \sum_{i=1}^n (\text{exp}(i) - 1)^2} \times \sqrt{\frac{1}{n} \times \sum_{i=1}^n (\text{exp}(i) - 10)^2}}{GI \times DD \times II}, \quad (4)$$

<p><b>Knowledge &amp; Technology management (PT)</b></p> <ol style="list-style-type: none"> <li>1. Training and development of the company’s personnel</li> <li>2. Innovativeness and performance of research and development</li> <li>3. Communication between different departments and hierarchy levels</li> <li>4. Adaptation to knowledge and technology</li> <li>5. Knowledge and technology diffusion</li> <li>6. Design and planning of the processes and products</li> </ol>
<p><b>Processes and work flows (PC)</b></p> <ol style="list-style-type: none"> <li>7. Short and prompt lead-times in order-fulfillment process</li> <li>8. Reduction of unprofitable time in processes</li> <li>9. On-time deliveries to customer</li> <li>10. Control and optimization of all types of inventories</li> <li>11. Addictiveness of changes in demands and in order backlog</li> </ol>
<p><b>Organizational systems (OR)</b></p> <ol style="list-style-type: none"> <li>12. Leadership and management systems of the company</li> <li>13. Quality control of products, processes and operations</li> <li>14. Well defined responsibilities and tasks for each operation</li> <li>15. Utilizing different types of organizing systems (projects, teams, process...)</li> <li>16. Code of conduct and security of data and information</li> </ol>
<p><b>Information systems (IT)</b></p> <ol style="list-style-type: none"> <li>17. Information systems support the business processes</li> <li>18. Visibility of information in information processes</li> <li>19. Availability of information in information systems</li> <li>20. Quality &amp; reliability of information in information systems</li> <li>21. Usability and functionality of information systems</li> </ol>

Fig. 2. Critical factors of resource index.

Another small experience has been conducted to test the important of value added and source of product concept toward Thai fine gold jewellery. Four piece of fine gold jewellery has been manufactured according to different concept and judged by experiences foreign jewellery buyers. The detail of tested jewellery is presented in Table 1.

Table 1  
Experimental products.

		Concept	
		Buyer	Maker
Value added	Low	Jewellery A	Jewellery B
	High	Jewellery C	Jewellery D

Note: the definition of “Concept” in this experiment relates to issues of product design, materials, target pricing, quality and customer targeting, while

“Value added” means additional value of product through quality, material, and design.

The buyer was then presented with these different products and interviewed with respect to the advantages and disadvantages of each one. This took place as part of a commercial transaction.

## Research findings

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### Five force analysis

#### (1) Threat of Substitute Products

The substitute products for fine gold jewellery may appear to include costume jewellery and silver fine gold jewellery. However, the target market for those products and fine gold jewellery is in fact a totally different segment. In fact, the actual substitute products for Thai gold jewellery exporters are gold jewellery items with different materials and stone setting techniques. The shift in jewellery setting trend and stone preference is the main threat for Thai exporter.

#### (2) Threat of the Entry of New Competitors

The new comer like China, Malaysia, Singapore, and India create a major effect to the industry, since they are good source of cheap jewellery. Chinese economic and technological development was largely fuelled by direct investment by overseas companies and by providing know-how to produce specific orders. China has, therefore, become a major OEM exporter of fine gold jewellery, principally to Hong Kong. According to the research, most of the companies dealing with Chinese factories were upset with their past performance. However, the attractiveness of their low production costs has encouraged them to assist those factories to improve their quality both directly and indirectly. Singapore and Malaysia have been doing well in this industry for the past few years. Some new jewellery companies have aggressively penetrated the market through the fine quality of merchandise with reasonable prices and remarkable design. Their ability to do this results from the fact that the company owners concerned are Chinese migrants and use Chinese factories as their main production bases, while obtaining some support for the expense for overseas exhibition from the Export Promotion Department of their country. India is another new entrant with remarkable aggressive selling technique cheap labour, and abundant resources are their strength. Some Indian companies have built their own factories in Thailand, Hong Kong and China to obtain competitive advantage of production skills. The Indian government offers intensive support to the gems

and jewellery industry and try to expand its export volume.

In short Thailand is facing a difficult time with new entrants from China, Singapore, Malaysia and India. These countries have low labour costs because main production bases are located in India and China. They are very aggressive in terms of marketing and well supported by their governments.

#### (3) Intensity of Competitive Rivalry

There is a high level of competition in the fine gold jewellery industry which has been intensified by the reduced demand caused by the current economic crisis. The intensity of competition has filtered a large amount of fine gold jewellery companies out of the market due to lack of competitiveness.

#### (4) Bargaining Power of Customers

The bargaining power of buyers is getting higher due to the competition between rivals. The higher level of competition leads to higher benefits for buyers. In the future, industry players may need to come up with a better approach in order to survive in the market.

#### (5) Bargaining Power of Suppliers

From the research, most jewellery factories do not have much bargaining power with respect to gold suppliers. They must pay cash on delivery and there are very few volume discounts on gold. Thailand has the same level of bargaining power toward stone and diamond suppliers as Hong Kong since the major stone and diamond suppliers are Indian. Credit terms are also given to both markets by Indian suppliers. In the past, some fine gold jewellers have received roughly six months' credit from diamond and stone suppliers. The length of time from production to collection of money may be around four months, comprising of one month for production and three months for marketing and collecting money. There is still a gap of some two months before the payment becomes due. However, since the advent of the economic crisis, some buyers cannot make the payment on time. Diamond and stone suppliers have become more cautious and made the credit term shorter.

### The national diamond of competitiveness

#### (1) Factor Conditions

Land Factor: In terms of international jewellery fair in Thailand, the performance of the fair in recent years has been problematic because of economic and other problems. Further, Thai exporters have not in-

vented new designs and so the show has become uninteresting destroy the image of the show and downgrade to gem trade show not for jewellery. The major advantage for the Thai gem and jewellery industry is the abundance of gem resources in the past that led Thailand to become a major global stone trading hub. However, that abundance has depleted and Thailand has had to start relying on imported rough stones from overseas.

**Labour Factor:** Thailand has expertise in manufacturing and exporting fine gold jewellery with genuine gems when compared with competing countries due to the skilled work force that is specialized in setting techniques, especially for high end setting style. However the ship in jewellery setting preference and cost of labour will force Thai player out of the market. Interviews indicated that Thailand has the highest minimum wage levels compare with other players. Research showed that some Thai exporter use overseas subcontract to reduce this disadvantage.

**Capital Factor:** the majority of fine gold jewellery manufacturers in Thailand are small and medium-sized enterprises. They have limited capital and knowledge on about financial management [12]. According to the research, in the past fine gold jewellery manufacturing was a sector in which companies rarely borrowed money from financial institutions because of their credit terms. Normally, buyers placed a 50% deposit before production and the remainder before delivery. Thai fine gold jewellery manufacturers still enjoy credit terms from diamond and stone suppliers and this enables them to run factories with less capital. On the other hand, with high competition having emerged during the past few years from new competitors in Hong Kong and India who have penetrated the market aggressively by giving credit and consignment to jewellery buyers, the traditional credit norm has become obsolete. This has led to financial problems for Thai fine gold jewellery actors at the present time.

**Technology factor:** the fine gold jewellery industry is one industry that relies on new technology development. The research discovered that Thailand has been lagging behind in terms of research and development in this area. The study shows that Thailand uses traditional jewellery making techniques. Most of the machines and technology used need to be imported from overseas. Thai goldsmiths are able to use machines because of manuals and training provided by sellers. In terms of product development, Thai fine gold jewellery manufacturers do not pay much attention to creating new designs. Most of the designs produced in Thailand appear to be similar to one another. Records indicate that, for the last few

years, most Thai fine gold jewellery products have had similar designs. This has resulted in much less interest and demand in these products from buyers. Branding and innovation are important. However, most Thai fine gold jewellery producers conduct business by copying existing well-known brands instead of creating their own.

## (2) Related and Supporting Industries

Thailand has a complete range of supporting industries for the fine gold jewellery industry from materials, production and all others. For materials, Thailand is a major world stone trading hub, which means that Thai fine gold jewellery manufacturers have more chance to gain access to a variety of stones at reasonable prices. However, since Thailand now lacks raw materials, manufacturers have to rely predominantly on imported materials. In terms of production, only large enterprises have full length production lines with advanced technology, proper investment and R&D. On the other hand, the majority of factories, usually small and medium-sized, use traditional jewellery-making techniques with some outsourcing for some part of their production process, followed by standard quality control. In short, they are making jewellery based on the crafts-oriented production and then selling them on a mass production basis [17]. Thailand also enjoys benefits from other supporting industries, including packaging, gold refinement, casting, jewellery parts, casting, rubber mould making, wax creation and GIT.

## (3) Demand Conditions

From the interviews conducted, it appears that demand conditions in Thailand are different from other export markets in criteria such as percentage of gold used and design techniques. The only local demand that match with export market is jewellery store target at tourist customer. According to the research reported on here, the accepted norm for fine gold jewellery in Thailand is a large diamond or other precious stone surrounded by high quality diamond(s) with a traditional design. This norm may difficult to fit with US and Europe customer however there are some markets with similar product preferences to Thailand such as Vietnam, Cambodia and Indonesia which are not main export market of Thailand.

## (4) Strategy, Structure, and Rivalry

The majority of Thai fine gold jewellery exporters are limited in size and jewellery fairs, both local and overseas, are principal distribution channels for

them. According to the research, Thai fine gold jewellery producers do not feel that direct visits to customers should be their main sales activity. Even for the local market, only a few jewellery companies do direct visiting. This is different from Hong Kong and Indian companies, which pay attention to this strategy and penetrate jewellery markets aggressively. In addition, it appears that there are several foreign jewellery companies which do directly visit local buyers in Thailand.

Thailand has only one jewellery association, the Thai Gem and Jewellery Trader Association, which runs the international jewellery fair in the country. While this association has become a monopoly in the Thai market, main competitor Hong Kong has two associations. Hong Kong jewellers benefit from an oligopoly situation with more aggressive marketing campaigns run by the two associations to attract buyers and visitors. Benchmarking between two parties has resulted in continuous improvement in fairs and other support activities such as international jewellery fairs, jewellery information provision and training. This evidence suggests that the level of competition in Thailand is low and leads to Thai jewellery makers lacking aggressiveness in marketing compared with competitors.

(5) The Role of Government

The Thai government does pay attention to the gem and jewellery industry and there are many projects that support exporters. Thai customs has reduced import duty and tax from time to time to help Thai exporters. For example, the diamond import tax was 8.2–16.2% for the year 1995 and only 1% in the year 1999. From a factsheet provided by the Department of Export Promotion, the major activities that government will urgently support including developing Thailand to be a global stone trading hub, finding new sources of raw materials, developing new technology to support productivity, human resource development to serve the expansion of export markets, building the image of Thai jewellery, helping Thai exporters to penetrate new markets and facilitating Thai exporter in their exporting activities [18].

Sense and respond result

Sense and respond analysis is based on the results of operational competitiveness by AHP methods. This process consists of evaluation and benchmarking the operational competitiveness of case companies in a turbulent business environment against the highest benchmarks in the world by taking into ac-

count business resources. In order to get the percentage of each index, we assume that the total resource amount is 1 and the average occupation is 0.048. Each value indicates how much resource the relative index occupies or how much energies the companies pay to. The analysis results of resource CFI are shown in Fig. 3 that the allocation priorities of the four resource factors to case companies are different.

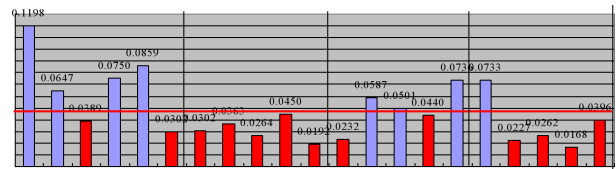


Fig. 3. Resource CFI analysis results of case companies.

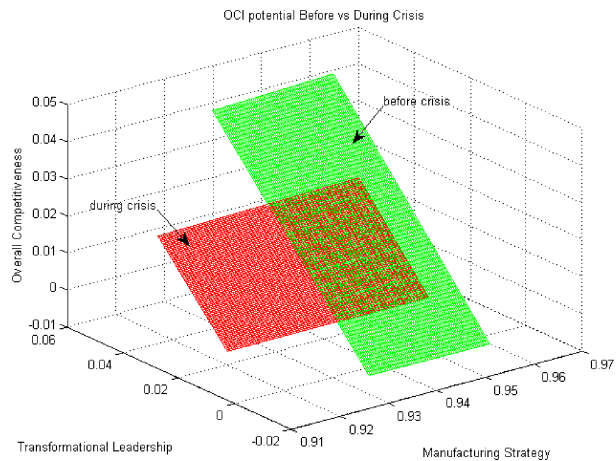


Fig. 4. Overall Competitiveness Index (OCI) Before, and During Crisis of Thai Fine Gold Jewelry Industry.

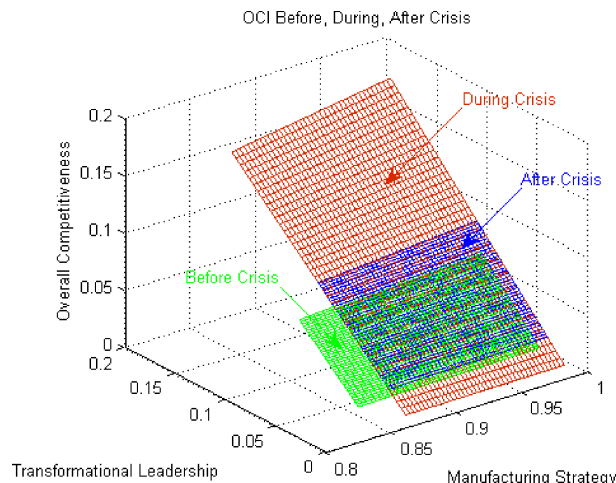


Fig. 5. Overall Competitiveness Index (OCI) Before, and During and After Crisis of Overall Industry.

The analysis results show that PC and IT factors are most critical ones in the business resources, and

PT occupies most of the business resources. Therefore, resources allocation should be in the way that PC and IT have more and PT and OR have less. The S&R results also show that advanced management methods or thoughts should be added into the case companies in order to follow the economy development. Such as customer orientation, information management system, flexible operational process etc.

Future more the AHP analysis of Thailand jewellery case shows the OCI result during crisis is worse than before crisis which has not happened before in other study.

### Experiment result

As an experiment, four different jewellery designs were produced after consultation with the buyer and they had these characteristics:

- Jewelry A: Buyer's concept and low value added,
- Jewelry B: Maker's concept and low value added,
- Jewelry C: Buyer's concept and high value added,
- Jewelry D: Maker's concept and high value added.

After production, the merchandise was sent to an Italian fine jewellery buyer who has had experience with fine gold jewellery from Asian countries such as Thailand, Hong Kong, China, Indonesia and India for more than ten years. The buyer purchased items A, B, and C but not D. The order of preference was C, A, B and then D. C is the favourite because it matches customer demand and offers most opportunity for profit. A was acceptable because it was similar to what was already selling and could be moved. B was problematic but worth a try because the low cost compensated from the different style to which customers usually looked. However, D was unacceptable because, despite having the best materials and design, as well as best quality of finishing, it represented too much of a risk because of different style and high price.

### Conclusion

The research indicates that the competitiveness of the Thai fine gold jewellery industry is declining. This is due to the lack of research and development, treat of new entrant, higher labour costs, and lack of raw materials. The research found that combining of diamond of nation and five force models can help analyser get a better understanding of firm competitiveness.

Sense and response analysis explained that Thai firm needs to improve their internal management as well as information system. In addition the performance during crisis of this industry was drop due to several factors.

Another finding suggested Thai firm to apply value added and study customer demand.

### Reason for declining

**Lack of research and development:** In term of production, Thai fine gold jewellery industry still rely on traditional jewellery crafting technique except quality control which follow international standard. This mystify way of management make it difficult to develop and manage. In term of design, Thai fine gold jewellery industry usually do OEM and use design from buyers, or else use copy and modify strategy. By this two characteristics make Thai fine gold jewellery heading to middle of nowhere.

**Treat of new entrant:** The competition in the fine gold jewellery industry is increasing due to new entrants from China, Singapore, Malaysia and India. These countries gain advantage from labour productivity, continuous improvement behaviour, aggressive selling characteristics and government support.

**Higher labour cost:** According to the interview with an Italian goldsmith he mentioned that "Chinese goldsmiths and Italian goldsmiths use the same jewellery tools; the only difference is in the ideas. Once Italian companies give them ideas or Chinese designers come up with their own innovative ideas, then the results will be similar and Italian goldsmiths will lose their jobs since our labour costs are higher". This information claimed that cost leadership is the main concern in jewellery export industry.

Porter recommended a firm to concentrate only on one generic strategy, either cost leadership or differentiation. However, according to the research, in business to business industries such as the one considered here, fine gold jewellery industry buyers have good knowledge about costing. A competitive firm needs to have cost leadership or standard accepted norm price structure in order to survive and also requires a differentiation strategy to make them distinctive and attractive to buyers.

**Lack of raw material:** The major component of fine gold jewellery consisted of gold, diamond, and stone which are typically imported from overseas. Thailand is lack of strategic competitiveness in term of raw material source. Any changes arise in the cost of raw material will directly affect the overall cost of production and overall performance of Thai fine gold jewellery exporters.

### The use of five force analysis and diamond of nation model

Both the diamond of national competitiveness and five force analysis helps to display the big picture of the industry. Nevertheless, for international

industry it is better to use both tools for better understanding, since five force analyses lacks the political element, while the national diamond approach does not consider the impact of new entrants nor the need to deal with multiple international markets. Consequently, a recommended framework that combines five forces and national diamond analyses is called Comparative Reasoning by Six Factors (CRS). CRS analysis involves not only the local market but also competitor markets. Studying home base market factors for both local firms and competitors will help analysts understand why actors are strong or weak in that section. Also, studying the global market will help exporters understand how to adjust to cope with differences. The six factors for analysis include company, customers, related industry, rivalry, suppliers and supporting agencies. Firstly, it is necessary to analyse the firm itself. What is the firm's structure and culture? In which areas are they competitive and which not? Customer factors include the bargaining power of customers and demand conditions. Related industry refers to supporting firms for production, marketing, logistics and other activities that facilitate sales. Rivalry discusses the intensity of rivalry in the market, as well as the risk of new entrants and substitute products that affect the purchasing power of customers. The supplier factor considers the bargaining power of suppliers and adds supplier conditions since it is another topic that should be examined. Supporting agencies refer to support that the firm received. There are two main types of supporting agency: government support agency and non-government support agency. Sometimes the change in technology, trends and consumer behaviour might also promote or limit industry growth.

### Sense and Respond Analysis

The finding shows the plunge in performance of Thai fine gold jewellery exporters during economic crisis when compare with the performance prior the crisis which does not collaborate with finding from other industries when apply OCI model. The in-depth interviews have been explained the cause of poor performance can be caused from several factors.

First of all, Thai fine gold jewellery exporters are more passive when they are doing business comparing with other competing countries. Once the demand from buyer decreasing the common strategy that they will apply is downsizing and lay off in order to make the whole firm continue to exist.

Secondly, Thai fine gold jewellery exporter firms are small and medium size enterprise (SME) which profoundly relying on one person that in charge for

all the strategic activities. This person could be the founder or talented manager who has been in this business for several years. The advantage of using one man show strategy is the whole organization can be propelled through the passion, determine, visualization and drive of this group of individuals. However depending too much on one two individuals may not be enough leadership power to cope with the crisis.

Next, the recent economic crisis is directly affect end user however the result is revealed on jewellery retailers a few months later then afterward has an effect on jewellery exporters. The time frame for fine gold jewellery exporters get impact from the crisis is about 6 – 12 months behind the time crisis originally take place. The delay of impact gives enough opportunity for jewellery exporter to prepare for the unforeseen result. This is one reason behind the slow response to the turbulence.

In addition S&R analysis has explain that poor internal management and lack of information system can be another cause of performance plummet.

### Value added and Customer demand

Value creation is an important tool to increase the firm profit as well as increase competitive advantage of the firm. However the value creation cannot work alone. Firms need to understand customer demand before applying value creation. The value creation that apply without understand customer demand will result in defeat on rivalry as well as effect revenue status of the firm.

### Recommendations

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From various analyse tools has suggested that it is the time for the Thai fine gold jewellery industry to realize that they are lagging behind competitors. Being labour intensive is no longer a competitive advantage and manufacturers should pay more attention toward technology, innovation, design and branding. Thailand has to shift from original equipment manufacturer (OEM) to original design manufacturer (ODM) or original brand manufacturer (OBM). Producing only merchandise according to buyer demand does not guarantee survival for the Thai fine gold jewellery industry in the long run. There are no longer any loyal customers in this industry and, once they can find a better source of supply, there is no reason for them not to switch.

Networking is another issue to which producers need to pay attention. Networking can help in information-sharing between buyers and suppliers, as well as between exporters. In terms of produc-

tion networking with Chinese factories, there is the problem of incompatibility of Thai gold styles and, so, Thailand has missed an opportunity to access the cheap labour cost advantage in China in the way that Singapore and India has, even though Thailand is a nation that has a lot of Chinese migrant background people. In terms of selling Thai fine gold jewellery, it is important to consider other ASEAN markets, since they have similar product preferences to Thailand, the perception of Thai merchandise is good and the reduction of import tax among ASEAN member can also promote intra-regional exports.

Organizers of both local and overseas international jewellery shows need to be meeting up and reorganizing their strategy. They should conduct activities in the same direction with the same purpose of building a good perception towards Thai fine gold jewellery with the same theme and decoration concepts and assist export activities. Government policy should be more stable and prepared for the long-run. Exporters should exhibit in international fairs to get ideas of what buyers want. Overseas shows are critical for the survival of this industry. It is time for producers to knock on customers' doors instead of waiting for them to visit. What it is that customers want is the key factor. Producers that understand this can add more value to earn more profit. However, producers who lack such understanding should probably avoid trying to add value to products as this will just make them more expensive and risky.

From sense and response analysis shows that Thai fine gold jewellery exporter operational strategies are traditional approach. They are more focus on finest quality of finishing before crisis and out of the blue change to cost concentration during crisis. Albeit, downsizing, lay-off, and cost leadership may be the right strategic choice to cope with the crisis for Thai fine gold jewellery exporter, it is not the only strategy that can let business survive from crisis. Since most of the firms follow the same strategy, it will increase the difficulties to gain competitive advantage from applied it. There is a big room for differentiation that Thai fine gold jewellery exporter can apply such as providing customer with more flexibility, focus of niche high value customer, or do business alliance with strategic resources suppliers. Supplementary, Thai fine gold jewellery need to improve their IT systems, processes, advanced their management methods, and fresh idea should be added into these companies in order to follow the economy development such as customer orientation, information management system, flexible operational process, etc.

In term of leadership, Thai fine gold jewellery exporters do not have enough leadership capacity to cope with the current economic situation. Typically Thai fine gold jewellery companies are owned by Thai born Chinese (Thai nationality which has Chinese immigrant background) and still use Chinese traditional management style which rely on one person, the owner himself. Since these people may not have enough direction ability to handle the current crisis, it may be a good time to transform leadership to successors or subordinate. Using fresh ideas into the operation can increase the overall performance of the firm. Researched show that the Thai fine gold jewellery companies that transform the leadership to successor during or prior crisis has a better performance.

In short, the key success factors for the Thai fine gold jewellery industry are to understand what customers want and apply value creation, do more networking, pay more attention to innovation, product development, brand building, improve internal management, and recruit new talented staff or do transformation.

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