The Effect of Regional Intellectual Promotion and Industrial Creativity Promotion on Baan-Cao-Jom Jewelry Design of Sri-Satchanalai District in Sukhothai Province

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Abstract

The purpose of this research is to provide in-depth recommendations to small and medium enterprises as well as local enterprises in order that the local intellect combined with scientific principles can be used to commercially develop innovative products. This research was conducted by selecting a small and medium enterprise in the gold or silver ornament industry in Sukhothai province, which is Baan-Cao-Jom Jewelry Design of Sri-Satchanalai district. Having selected the enterprise, the objectives, missions, processes and evaluation methods were explained to the enterprise. In addition, the contributing factors and business possibility were also analyzed and discussed regarding the utilization of regional intellect to create 2 prototypes of gold and silver ornaments. The research also included the provision of advertorial materials to be distributed by the group, which were one 0.80x1.20 meter four-color posters and 1,000 A3 four-color pamphlets, explaining the details and products of this research. The research came up with 2 prototypes of silver ornaments. The design of the first set of silver ornaments inlaid with jewels derived from the colors and patterns of Teen Chok's textiles. The filigrees of Teen Chok are fine patterns which are the main components of Teen Chok. The patterns used to design the first set are those which have geometric forms, namely Krue-Kor, Sroi-Sa and zigzag patterns, combined with regional art as well as intricate handicraft of experienced and skillful goldsmith specialized in ancient patterns from Baan-Cao-Jom Jewelry Design who can design various types of ornaments. The main component used for the mounting is silver and the inlaid jewels used are, for instance, emerald, gemstones and light and deep blue enamels. The necklace of the first set can be worn in 3 different styles depending on occasions. The design of the second set is contemporary which utilized the new enamel technology on Sukhothai gold ornaments, Tubsuang pattern and the design of intertwined sprays from the walls of Nang Praya Temple. This set of ornaments is suitable for men of working age who prefer gold ornaments which have a variety of functions. It is also equipped with a sim card reader which can be used to store important information in daily working life. Additionally, this research designed the packaging for the products as well as advertising materials for the community as well.

Keyword: ornaments, regional intellect

1. Introduction

Industrial economics has considerably become more innovative. In order to achieve the competitive advantages, it has become increasingly necessary to be able to utilize innovative technology efficiently. On the other hand, nature conservation is also playing a significant role in the present days. Nature conservation, together with creativity as well as regional intellect, can greatly create product differentiation, leading to business prosperity and the stability of the country's economy. Especially now that Thailand is currently facing many important changes, which can either be an advantage or limitation to the country's development, it is therefore essential that industrial enterprises are ready to adapt to future changes and benefit from globalization. Furthermore, enterprises should also apply sufficiency theory in all levels by using appropriate regional intellect to gain competitiveness.

Regional intellectual promotion aims to add more value to products in the region from materials found in the region. To achieve value creation, more emphasis should be placed on product innovation, process innovation of existing prototypes, inventions and machinery using reverse engineering in order to enhance the competitive advantages of regional products as well as encourage intellectual promotion within enterprises.

It also includes the provision of equipments and machinery which can effectively enhance more productivity. Product innovation should greatly make use of regional intellect in order to create product diversity which is suitable for the needs of the target market.

The researcher conducted regional intellectual promotion activities under the project of industrial innovation and constructive industry promotion which aimed to showcase the advantages of regional intellect in industrial development. Such integration can lead to the country's economic stability and can provide an opportunity for creative industries as well.

2. Objectives

2.1 To provide extensive and in-depth recommendations regarding the utilization of regional intellect in small and medium enterprises as well as local enterprises to promote product innovation by designing 2 prototypes of gold and silver ornaments.

2.2 To encourage small and medium enterprises as well as local enterprises to utilize regional intellect to create innovative products and product manufacturing processes.

3. Scope of Study

The scope of regional intellectual promotion activities is as follows:

3.1 Organize meetings to explain the objectives, missions, processes, results, and evaluation to local enterprises.

3.2 Analyze and examine factors and possibilities of integrating business model with regional intellect to invest in creating innovative products.

3.3 Offer in-depth recommendations and intellectual knowledge regarding the management, regional intellectual creation, product design, manufacturing processes, innovative business planning, and product development derived from recommendations from surveys.

3.4 Prepare the information on industrial innovations which utilize regional intellect.

(1) Select regional intellect to be tested for industrial innovation creativity.

(2) Determine marketing strategies and analyze business environment.

(3) Evaluate business opportunity of the products.

3.5 Produce an appropriate number of industrial innovative products. Local enterprises take part in the investment using regional intellect which does not violate patent right or copyright. The researcher also introduced the products to the market and investment sources in order to encourage future business opportunities.

3.6 Produce advertising materials which highlight the products' main features including one 0.80x1.20 meter four-color posters and 1,000 A3 four-color pamphlets, explaining the details and products of this research.

3.7 Produce at least 1 product prototype for the enterprise so that they can make use of it for further advertisement.

3.8 Write a complete report and provide at least 10 CD copies which outline the establishment as well as the development of regional intellectual products along with useful recommendations and product development model.

4. Research Results

Silverware and silver ornaments in Thailand are products which require highly skilled craftsmanship in order to maintain the reputation of the country. These products also bring in tremendous income to the country. Therefore, the technologies as well as craftsmanship of Thai silverware and silver ornaments need to be developed, including the training of skilled workers. At present, there is a shortage of skilled workers to meet the demand of this market, especially for silver ornaments. Moreover, important factors which can help the expansion of the silverware industry are the government's policies, mechanism and measures regarding investment promotion, tax measures, as well as non-tax measures. That is because such factors can greatly affect the import of materials from outside Thailand.

Baan-Cao-Jom Jewelry Design should attempt to strive for long-term competitiveness and develop more production capability in order that the products will have high quality and distinctive styles, and can be sold under its own brand. Moreover, the shop should also increase the quality of its personnel, especially its designers. In regard to the marketing strategies, Baan-Cao-Jom Jewelry Design should place more emphasis on the high-end market where the quality of products is crucial and focus on the use of offensive strategy. Besides, both the government and private sectors should help promote and develop the silverware as well as gemstone and jewelry industries by providing short-term, medium-term and long-term marketing strategies to operators in these industries and other related industries. Additionally, the government sector should also encourage businesses to keep track of market or consumer behavior trends of core businesses in order to keep abreast of the situation and constant changes in consumer needs.

Regarding the information of Baan-Cao-Jom Jewelry Design, the owners are Mr. Chareon Yoddee and Mrs. Nattana Yoddee. The contact information is 115/3 Moo 3, Sri-Satchanalai, Sukhothai 64000, telephone numbers: 081-7857728 and 055-950578.

Product Brand	Baan-Cao-Jom Jewelry Design
Type of Product	Gold and silver ornaments inlaid with ancient patterns,
	jewelry and gemstones
Product Strength	Handicraft
Main Materials	Gold, silver, and enameled stones and other gemstones
Production Processes	Design gold and silver ornaments. Then, gold and silver are
	forged with other appropriate materials and subsequently formed in
	molds. Next, products are rolled, chased, and engraved. Finally, they are
	incorporated with other details, assembled with other gemstones,
	enameled, and cleaned.
Target Clients	Sex: male-female in all ages
Distribution Channels	Baan-Cao-Jom Jewelry Design, delivery and custom-made
	orders
Products to be designed	Gold and silver ornaments such as necklaces, earrings,
	rings, bracelets, brooches, Buddha image frames, etc.
Developable Product Line	Adapt and use silver in home decorations such as picture
	frames, lamps, and Buddha image decoration and also incorporate gold
	and silver with other materials
Packaging	As the products are relatively costly, red velvet boxes and
	gauzy bags are utilized for packaging.
Marketing Recommendations	Develop a diverse variety of ornaments which are
	suited with wearers and occasions.
Corporation of owners	Produce 1 set of prototype products
Product Development Guideli	
	maintain the uniqueness of Sukhothai patterns
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Table 1: Primary Data Analysis

SWOT Analysis of Baan-Cao-Jom Jewelry Design

Strengths

- 1. The owners of Baan-Cao-Jom Jewelry Design have an extensive knowledge in the production of gold and silver ornaments and have been in this business for more than 10 years.
- 2. Have definite distribution channels, both at store front as well as custom-made orders.
- 3. Craftsmen are skillful.
- 4. The cost efficiency of Baan-Cao-Jom Jewelry Design enables them to set more competitive and reasonable prices than their competitors in this market due to the use of local workers from Sri-Satchanalai district.
- 5. There is a unification of gold and silver experts from Sri-Satchanalai district; therefore, knowledge is shared and coordination with the group is enhanced.
- 6. The initial investment came from the founders of Baan-Cao-Jom Jewelry Design. Therefore, the business does not need to be concerned about debt burden.

Weaknesses

- 1. The brand has not yet been known to consumers due to insufficient advertising and public relations.
- 2. Due to the use of labor intensive practice, it is relatively difficult to increase labor force and production capacity.
- 3. As most of the workers are labor workers, the development of craftsmanship skills requires a long time.
- 4. The production site is in a populated area; therefore, expanding the production capacity can be difficult.

Opportunities

- 1. Gold and silver ornaments are quite well-liked by consumers; consequently, products can consistently be sold in a variety of occasions.
- 2. The government's policies have supported small and medium enterprises which is a great opportunity to increase the production capacity.

Treats

- 1. Since this industry does not require a lot of investment, there are subsequently numerous competitors.
- 2. Products are easily imitated. Therefore, it is of great importance that businesses create differentiations in their products as well as awareness of their brands to consumers.
- 3. Because the patterns of the ornaments are relatively similar, consumers may find it difficult to differentiate the differences of the products.
- 4. Due to the fact that the prices of the raw materials vary according to the market cost, there is a great risk of shortages and price fluctuation.



Image 1: Giving Management Recommendations

Image 2: Giving Business Strategy Recommendations



Image 3: Giving Recommendations on Development



Image 4: Recommendations on Ornament Regional Intellect Development

Development of Ornament Patterns for Prototype 1



The prototype pattern of the ornaments derived from Teen Chok textiles which are woven by the local people of Had Siew, Sri-Satchanalai district in Sukhothai. Teen Chok is known for its fineness, neatness, and beauty and requires lengthy weaving time. *Sinh* is a woven tube skirt and *Teen Chok* is the hem part which is particularly woven with a lot of details and is sewed to the bottom part of *Sinh*. Together, they are called *Teen Chok*. *Chok* is the use of porcupine quill to separate the warp of the loom and insert it over and under the warp threads to achieve the desired patterns.

Image 5: Teen Chok Patterns, Weaved Using Regional Intellect of the Locals from Sukhothai

Design Inspiration

The design was inspired by the slogan of Sukhothai stating "...the beauty of Teen Chok..." which is ancient woven textiles combined with the fact that ornaments are every women's desire. Therefore, Teen Chok patterns together with regional intellect are adapted to create Sukhothai's unique silver ornaments.





Image 6: The Design of the Silver Ornaments is Inspired by Teen Chok Textiles from Sukhothai Combined with Ancient Techniques Used to Produce Ornaments. The Design Still Maintains the Uniqueness of Sukhothai as well as Ads Contemporary Designs Which Make Use of Regional Intellect.

The design of this set of silver ornaments inlaid with jewels derived from the use of the colors and patterns of Teen Chok textiles. The textiles of Teen Chok are fine or detailed patterns which are the main components of Teen Chok. The patterns used in this research are those which have geometric forms, namely Krue-Kor, Sroi-Sa and zigzag patterns, combined with regional art as well as intricate handicraft of experienced and skillful goldsmith specialized in ancient patterns from Baan-Cao-Jom Jewelry Design who can design various types of ornaments. The main component used for the mounting is silver and the inlaid jewels used are, for instance, emerald, gemstones and light and deep blue enamels. The necklace of this set can be worn in 3 different styles depending on occasions.



Image 7: Final Products of the Silver Ornaments Including a Necklace, Earrings, a Ring and a Bracelet



Image 8: Final Product of the Locket is equipped with a Sim and memory card case which is inspired by the Stucco on the Walls of Nang Phaya Temple

The development of ornament patterns for prototype 2

The design of this set is contemporary which utilized the new enamel technology on Sukhothai gold ornaments. Tubsuang pattern is inspired by the design of intertwined sprays on the walls of Nang Praya Temple which states that "The stucco on the walls of Nang Phaya Temple is exquisite and elegant and the imprints of the flowers and leaves are vivacious, as though the walls have been transformed to delicate embroidery." This second set is suitable for men of working age who prefer gold ornaments which have a variety of functions. It is equipped with a sim card reader which can be used to store important information on daily working life.

Packaging Design of Cao-Jom Silver Ornaments



Image 9: The trial packaging is made from cotton. The product brand is engraved on top of the prototype packages developed and designed for Baan-Cao-Jom Jewelry Design. They include a box for the necklace, a box for the bracelet and a box for the full set of the ornaments. However, the actual packaging will be made from silk with the brand engraved on top for effective product promotion.

Discussion

In May of 2013, Thailand's export capacity of silver ornaments reached 781.3 million US dollars which is 21.5% greater when compared to the same month of the previous year (Office of Industrial Economics, 2012). Thailand still has the capacity to compete in the world market as there is a strong foundation in the production and services which have satisfied the consumer market. That is because skilled craftsmen in Thailand are expert in gem and pearl inlay as well as needlework, making Thai silver ornaments fine, distinctive, outstanding and well-liked by consumers. Yongyuth Raksakiet (2002) conducted a research on Sukhothai gold market in gold shops in Bangkok areas. The study uncovered that the gold business is divided into 2 types, sole entrepreneurship (85.6%) and limited partnership (14.4%). Moreover, it is found that each type employs different business strategies. Gold shops which are solely owned place great importance on the products first followed by pricing, promotions and distribution channels. On the other hand, those which are managed by different partners not only place great emphasis on the products but also pay attention to marketing promotions, pricing as well as distribution channels. They also employ approximately 3-4 shop assistants who have about 20 years experience in this business and the shops are usually located on main streets and are about 10-15 square wa . In addition, regarding the main factors which can affect the sale and distribution of Sukhothai gold, the market share of Sukhothai and normal gold is relatively similar at around 5-10%. The consumers are female and are regular customers aged 40 years or more. The best selling ornaments are bracelets and necklaces respectively. The most popular colors are natural colors and the best selling pattern is Sao pattern.

The weight of gold usually purchased by consumers is between 15.3-30.4 grams. Also, the best selling time of the day is from 12.31 - 16.30 and January is the month with the highest sales. Furthermore, the factor which can boost the sale of gold is discounts on the goldsmith's charge. Gold shops' main focus is on the products and the delicacy of patterns and the order of Sukhothai gold from wholesalers is normally done 3-4 months in advance. Another factor which affects the selling of gold is consumers' income. During economic recession, the purchase order for Sukhothai gold will decline. In addition, new business-related legislation such as new goldsmith's charge legislation can also influence gold sale. When there is high competition in the market, gold shops will release sale promotion to discount the goldsmith's charge. The competing product of Sukhothai gold is gold ornament.

The festive season where gold is sold the most is during the Chinese New Year. Other factors that can influence the decision making of consumers are the experience of sellers and the size of shops. The utilization of marketing strategies including products, pricing, distribution channels as well as promotions vary depending on appropriateness and expertise of each gold shop. Therefore, it can be noticed that each gold shop chooses to make use of different strategies.

Moreover, it is found that a factor which affects consumers' decision making is the choice of marketing strategies in pricing and promotions. According to Aimorn Laowattana (2006), consumers who have geographic differences in age, education and occupation will have different decision making processes. Supinda Wasinrat (1995) discovered that Thailand has more capacity to export all types of jewelry and ornaments which demonstrates that Thailand has the ability to compete with other countries in the world market. The major markets investigated in this study were Belgium, France, Germany, Hong Kong, Israel, Japan, Singapore, Switzerland, United Kingdom and United States. The results show there are possibilities that Thailand can expand the exports of gemstones and jewelry in almost all of these markets except in United Kingdom. The main factor for the market growth results from the product components and competitiveness.

Furthermore, other studies also found that other factors which can determine the export capacity of jewelry and gemstone industry are raw materials, labor, technology and design. The four aspects play an important role in enhancing the export capacity as well as competitiveness of the jewelry and gemstone industry. Such result is similar to the study conducted by Ruchaneekorn Wootissadpaibul (2004) which discovered that the competitive factors in the production are skilled craftsmanship labor and cultural foundations and that the limitations are the dependence of imported materials, lack of modern technology and labor with low education resulting in insufficient quality designers. Moreover, other contributing factors also include the availability of local downstream businesses and institutes to promote this industry. The downsides are corporations among manufacturers and limited number of institutes to promote the industry. In relation to the demand factors, there is a disadvantage in limited knowledge of consumers regarding silver ornament handicraft industry. On the subject of organizational structure and competitive strategies, the benefits are that there are production strategies, Ecommerce strategies and high competitiveness in designs and quality while the disadvantages could be lack of marketing and marketing promotion knowledge as well as lack of self-improvement and business improvement visions. This research discovered that the handicraft gemstone and jewelry industry in Sukhothai is not a wellintegrated enterprise network but only businesses which are located in the same area lacking neither connection nor corporation among one another. Nonetheless, there is possibility for development of this industry to become a developmental and sustainable enterprise network with proper improvement and promotion; for example, organizing activities for manufacturers, providing coordinators, conducting self-evaluation in different aspects as well as developing monitoring and evaluation system, etc.

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