Information Technology for Thai Leather SME Development

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Abstract

The Thai leather small and medium enterprise (SME) development has reached its state of high standard and quality in low-to-medium global market. The necessity of skill-workers, raw materials, and eBusiness knowledge makes this business grow. However, the Thai leather products cannot compete with the world-brand name because of the shortage of leather fashion designers and experts. The Thai government therefore establishes the strategy for supporting Thai industry competitiveness, which is divided into five areas. They are food, fashion, vehicle and spare parts, tourism, and software. The leather business is in a fashion group. Many agencies, e.g. the Department of Industry Promotion, the Ministry of Industry, the Leather Industry Association, Thai Leather and Shoes Association, and the Department of Export Promotion, the Ministry of Commerce collaborate together to promote and support small and medium enterprise (SME) and leather business development. Many impact factors, such as skill-worker, leather designer and expert, scientist and engineer, marketing, leather technology, raw material, and funding need to be examined. By using information technology (IT), it is easy to support data-information-knowledge for leather SME development. This paper therefore addresses the way of using IT for Thai leather SME to gain the competitive advantages and value-added according to Prof. Michael E. Porter’s principle. The use of information on-demand, enterprise collaborative technology, leather enterprise content management, interoperability, and supply chain management is to support Thai leather SME development and to increase the global market.

Keywords: Thai Leather, SME, Information technology

1. Introduction

The evolution of Thai leather business and industry within the past 20-25 years faced many problems until its products have been acknowledged by low-to-medium global market. The increasing of leather related products export can raise the income. Furthermore, the technology transfer makes Thailand become a hub of qualified leather goods, e.g. leather bag, furniture, decoration, shoes, belt, purse, and jacket. Some countries, such as India, China, Indonesia,
and the Philippines realize this niche market so they promote their leather industry [1]. The advantages of these countries are cheap labor, self-sufficient raw material, and low taxes, which make it hard for Thailand to expand the world leather market. In addition, the Thai leather products cannot compete with the world-brand name due to the limitation of skill leather fashion designer [2]. After the world economic crisis in 1997, the Thai government wants to increase the export income. To achieve this goal, the government therefore sets up the strategy for supporting Thai industry competitiveness, which can be classified into five areas: food, fashion, vehicle and spare parts, tourism, and software. The leather business is a fashion aspect. The government also appoints the Department of Industry Promotion, Ministry of Industry to be the key agency to promote and support various small and medium enterprises (SMEs) development. This agency works in collaboration with Thai Leather Association, Leather Industry Association, Thai Shoes Association, Thai Industry Board, and the Department of Export Promotion, Ministry of Commerce in order to increase the potential of Thai leather business in the world market.

Concerning the impact factors of Thai leather business, such as skill worker, leather designer and expert, scientist and engineer, marketing, leather technology, raw material, funding, and investment atmosphere, it is important to employ information technology (IT) as a strategic tool for providing data-information-knowledge for leather SME development. This paper therefore addresses the use of IT for Thai leather business to gain value-added and competitive advantages according to Prof. Michael E. Porter’s principle. The use of information on-demand, enterprise collaborative technology, leather enterprise content management, interoperability, and supply chain system, can help to support Thai leather SME and increase the global market.

2. The SME Development

The small and medium business (SME) has been developed by the concept of “entrepreneurship”, which is claimed to be the key component of business development. Entrepreneurship provides initial ideas from local knowledge. It helps us to create various themes, identity, and new business plan to satisfy society and economics changes. Note that it is important to satisfy customers’ needs and to find the new market by having a business advantage.

Italy can be claimed as the first country that provides a prototype for SME, which has been established after the Second World War. SME becomes the model of economic development for most of Mediterranean countries, such as Turkey, Greece, Spain, and Portugal, and many countries in the North Africa [3]. A small industry containing a few workers is established from family business, village and local community business. The products from these businesses have been subsequently accepted by worldwide markets. Italy has many good knowledge-made and brand name products. Many Italy fashion brand names are built by family business and small factories. Their unique style products can be easily changed according to fashion. France is another country that has a high image of SME sustainable development. The collaboration between the French government and private sectors is to support business initiative, incubator, SME research and plan, and modern product styles development in order to make SME grow.

In Thailand, SME can be claimed as one of the main factors for Thai economic growth. The Thai SME leather fashion, such as bag, shoes, jacket, and decoration have been exported. Many foreign customers trust Thai products. This is an indicator showing the capability of Thai leather SME. The government also promotes and supports Thai SME via OTOP (One Tampon One Product)
to show the potential and variety of local SME products. Such products can be exported to many countries. Beyond the Thai SME, there are re-life Thai business project, leather knowledge development and SME consultant registration project that aim to promote local Thai business [4].

3. Research Methodology

The research methodology of this work entitled “information technology for Thai leather SME development” is a data elicitation and analysis from various sources including the meeting reports. An interview is also used for data gathering from leather enterprises. Both sources of data show this business problems, requirement and solution. The design of leather products by using suitable information technologies can accelerate Thai leather SME development.

4. Thai Leather Business and Industry

The Thai leather business and industry is composed of 2,750 enterprises employing more than 300,000 workers. Ninety percents of this sector is a small business. In 2001, the export income from leather business was around 450 million US$ [5]. The main markets are Hong Kong (26%), USA (17%), and Europe (18%). In 2005 (Jan-Aug), the export income of Thai leather products increases to 1,090 million US$. The main markets are USA (29.9%), Switzerland (13.47%) and Japan (11.8%) [6]. Furthermore, Thailand is rank number six of the world exporter of leather products [7].

The main Thai leather product is a bag. Forty percent of this product is made from the real leather. The research shows that Thai leather bag is on-demand. There are many representatives in various countries, e.g. USA, Europe, Japan, and middle/east for finding new market. The leather SME is mainly depending on skill workers, and high-qualified cutter and sewer leather machines. Such machines are used for reducing the wasting cost on leather material preparation. The major costs of leather SME are raw material (59%), salary (24%), and miscellaneous (17%). There is less employed middle management, scientist and engineer, and external leather designer and expert for this business. The knowledge is normally transferred within the family. This causes the difficulty of business and market expansion. Therefore, the Thai government takes part of promoting this sector by creating the leather SME networking to exchange information, incubate leather business, negotiate export and sales, and find out the partnership and alliance. The “Bangkok Fashion” project hosting the “Miss World 2005 Contest” is an example to promote fashion industry in Thailand. A leather fashion also gains this benefit. The Bangkok Fashion subsequently promotes tourism industry.

4.1 SWOT Analysis for Thai Leather SME

Using the collected data from existing documents and leather enterprise interviews, it shows both internal factors, i.e. strength and weakness, and external factors, i.e. opportunity and threat, that influence Thai leather SME as follows [8].

- **Strength**
  - Hand-made leather products are interested by global market
  - Low-cost Thai leather products can compete in the market
  - Much experience on leather products creates a business confidence

- **Weakness**
  - The leather SME is depending on skill workers and is hard to maintain its quality
  - The leather SME is mainly a family business, which limits business and market expansion
  - Many enterprises lack the exporting knowledge
A poor networking makes it hard to find a new market
- The lack of skill leather designer limits this business challenge

The external factors that effect on Thai leather SME are shown below.

- **Opportunity**
  - The Thai government promotes and supports leather SME development
  - The government agency works hard on finding new market
  - The use of IT, e.g. Internet, and web technology as strategic tools to gain competitive advantage

- **Threat**
  - There is a competitive business from China that can produce cheap and large volume of leather products
  - The internal conflict in the South of Thailand reduces the investment atmosphere

### 4.2 The Factors for Supporting Thai Leather SME Development

According to SWOT analysis, the factors that affect Thai leather SME development are classified into five topics as given below.

- **Production aspect:** raw material, skill worker, leather designer and expert, researcher, marketing, knowledge, and budget

- **Marketing aspect:** the status and size of market, and a market opportunity

- **Supply chain and supporting industry aspect:** plastic industry, textile industry, and related leather business

- **Business strategy and environment aspect:** the image of company, standard, persuasion, product quality management, creative, and cost reduction

- **The roles of government:** regulation, laws, policy, best practice for leather SME development, strong political support, business privilege (taxes), the collaboration among public agencies, business consultant, and global business negotiation [5]

### 4.3 The Business Strategies

The aim of “Thai leather industry group” is to push Thai leather business as the leader in Asia within 10 years. The vision of this business is “Asia Leather Goods Center” and “Thailand’s Leather Goods: Italy of the East”. The Thai leather products can benefit the government project called “the Center of Asian Fashion”. The government has established six strategies for Thai leather SME development as follows [5].

- **Push market**
  - Bangkok International Leather Fair 2005
  - International Thai Leather Fair arranged in many countries, such as USA, Europe, China, Burma, and Cambodia
  - Trade representation as an export channel

- **Product development and research promotion**

- **Thai brand name creation**

- **Production development and management**

- **Industry networking and infrastructure**

- **Law and regulation development**

The above strategies conform to the IX national social and economic plan, especially the parts of workforce quality development, industry technology development, value-added, and cost reduction.

### 5. Information Technology for Supporting Thai Leather SME

Concerning the impact factors on Thai leather business, such as skill worker, leather designer and expert, scientist and engineer, marketing, leather technology, raw material,
infrastructure, funding, and investment atmosphere, it is important to employ IT as a strategic tool for providing data-information-knowledge for leather SME development. The use of data-information-knowledge on-demand, enterprise collaborative technology, leather enterprise content development and management, interoperability, and supply chain management is to gain the competitive advantages and value-added according to Prof. Michael E. Porter’s principle. Hence, IT can be used to support Thai leather SME development and growth. The relationship between business strategies for Thai leather SME development and IT is shown in Table 1.

Table 1: Thai Leather SME development Strategies and Information Technology

<table>
<thead>
<tr>
<th>No</th>
<th>Strategy</th>
<th>Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Push market</td>
<td>eMarketing, eCommerce, eBusiness</td>
</tr>
<tr>
<td>2</td>
<td>Product development and research promotion</td>
<td>CASE Tools for Leather Design, Leather Specialist Database System, Enterprise Collaborative Technology</td>
</tr>
<tr>
<td>3</td>
<td>Thai brand name creation</td>
<td>Internet, Web Technology, ePortal</td>
</tr>
<tr>
<td>4</td>
<td>Production development and management</td>
<td>Information On-Demand, Leather Enterprise Content Management</td>
</tr>
<tr>
<td>5</td>
<td>Industry networking and infrastructure</td>
<td>Enterprise Collaborative Technology, Interoperability</td>
</tr>
<tr>
<td>6</td>
<td>Law and regulation development to support Thai leather industry development</td>
<td>eBusiness Law, ePortal</td>
</tr>
</tbody>
</table>

Table 1 shows some examples of using information technologies for supporting each business strategy for Thai leather SME development. Other aspects, such as human development, management, infrastructure, and investment atmosphere are out of scope of this work. The use of eMarketing, eCommerce and eBusiness is to create the new channel for market expansion without geographical and time barriers. Furthermore, the product development and research promotion can create unique and innovative design of leather products, which is different from others. The construction of leather designer and expert database system will help SME to retrieve related specialist for business improvement. In addition, this can support technology transfer among leather personal by using enterprise collaborative tools, such as e-mail, and work group software. The third strategy of creating Thai brand name can employ Internet, web technology, and ePortal as communication channels. Information technologies, e.g. data-information-knowledge on-demand and leather enterprise content development and management can be used to support production development and management strategy. Next, the industry networking and infrastructure can apply enterprise collaborative technology and interoperability in order to share knowledge among all stakeholders. Finally, the development of related law and regulation can employ...
eBusiness law and ePortal for supporting Thai leather SME development.

### 5.1 Suggestion

To improve the Thai leather SME by using information technology, one should consider the following:

- Information technology should be used for managing leather business data, and providing related business processes
- eTraining, eSeminar, and eLearning should be employed for human resource development to give leather business knowledge on-demand
- Information system applications should be developed in order to manage, control, and assess the quality of Thai leather process and products
- Internet technology should be used as an additional channel to promote and expand Thai leather products in global market. The globalization issues, such as multi-languages currency and culture must be also considered.
- Call center, help desk, and leather related databases, e.g. shipping, and trade representative should be provided for managing and simplifying leather business, and reducing business risks
- The “link” exchange among various websites and search algorithm should be considered for search engine
- Worldwide brand name should be built to promote local leather fashion
- Qualified and competent leather designer should be developed

### 6. Summary

The Thai leather SME is one of the main clusters, which has been promoted and supported by the government. To develop the Thai leather SME, the government helps to find new markets, and provides technical process for leather product improvement. Both public and private agencies work together for the purpose of developing Thai leather SME, innovating leather product, and expanding global market. The Thai Leather Association is a non-government unit that works in collaboration with Thai leather SME to share business knowledge, utilize business resource, and gain business benefits. Most of the Thai leather SMEs are family businesses and small enterprises. Thailand wants to be the center or hub of leather products in Asian. To become the world leader on leather business, information technology must be used as a strategic tool for supporting leather business development. Using suitable and sufficient information technologies can gain business competitive advantages. This paper suggests the use of information technologies, such as data-information-knowledge on-demand, enterprise collaborative technology, leather enterprise content development and management, interoperability, and supply chain management for supporting Thai leather SME development. This proposed technology-driven business can increase the electronic business power and remain the enterprise strength.

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