A study of the Competitive Advantage of Thai Traditional Medicine and Herbal Products
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ABSTRACT

Purpose: The main objective of this study is to derive competitive advantage of Thai Traditional Medicine and herbal products industry by analyzing from SWOT and Porter’s Diamond model and finding out the relevancy of government policies in this industry.

Design/Methodology and Approach: Qualitative approaches have been used in this research by depth interview business owners.

Research result: Strengths and opportunities in this industry are derived from internal and external factors of their companies which indicated the competitive advantage over potential competitors. The result showed that strengths are the accessibility to raw materials, wide acceptance among overseas consumers, and the accreditation by international organizations. The opportunities of TTM and herbal products composed of the increasing demand in both domestic and international market and the integration of ASEAN Economic Corporation. Weaknesses are explained as high cost of production, quality of raw materials, and strong dependency on overseas distributors. Threats in this industry related to the intense competition from both local and international markets. With regard to Porter model, Thai
traditional medicine manufacturers have benefitted from favorable demand conditions particularly the size of home market. Nonetheless, this industry has also gained substantial market shares in Asia, EU and U.S.A as well. However, in terms of structure and rivalry, this industry faces high competition. Adding to this, government policies, such as marketing and financial support, regulate/deregulate are most relevant to this industry.

**Originality/Values:** For TTM and herbal products, most research concentrate on consumer point-of-view and there is a lack of studies on the views of company owners and government policies. **Keywords:** Competitive advantage, SWOT, Porter’s Diamond model, Government policy.

1. **Introduction**  
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Under the 11th Thailand Economic and Social Development Plan, which will be in effect from the year 2012 onwards, fifteen industrial groups have been singled out as targets of its attempt to build up creative economy. These include advertising, animation, architecture, crafts, design, fashion, film, historical and cultural tourism, interactive software, performing and visual arts, Thai food and Thai traditional medicine. Creative Economy policies have been promoted at the regional and community levels in order to incorporate traditional knowledge and generate income. Thailand has experienced relatively much successes and gained global recognition in many of these creative industries but not all shared similar success (Alexander, 2009). The Thai traditional
medicine so far has yet outshine itself among the other creative industries. The global market of traditional medicine has been dominated by China and India (Lange, 2004).

Thailand, being a later comer is not able to benefit from the advantages as being the first-mover. The question now is how can Thailand capitalize on local resources and use creativity to make Thai traditional medicines and services transcend cultures and thrive in the global market. These unanswered questions have promoted the researcher to initiate a research on the National Competitive Advantage of Thailand Traditional Medicine in the effort to provide an insight into the international competitive nature of the industry.

1.2 Significance of the Research
International competitiveness of countries is an ever-growing concern for governments, firms as well as academic scholars (Ketels, 2006). Evaluation of competitiveness became an important instrument for balancing the development process of the economy. For countries, especially the developing ones, the evaluation is important tool for policy creation – comparing the results with more developed countries shows developing countries the right directions of development process (Staskeviciute & Tamošiuniene, 2010). Likewise, this research on Thailand’s national competitive advantage in traditional medicine and herbal products is crucial as it evaluates the country’s competitiveness among other countries and more importantly, providing essential
information for policymakers, investors as well other related industry manufacturers.

1.3 Background of Thailand Traditional Medicine and Herbal products
The Kingdom of Thailand has its own system of traditional medicine called “Thai traditional medicine” (TTM). Originated during the Sukhothai period (1238-1377), it developed in parallel with the country as a means of national health care until the early 20th century (Chokevivat, 2003). The spread of modern medicine from the Western world to the East then led to a decline in the practice of traditional medicine in Thailand. As a result, modern medicine eventually replaced TTM and became Thailand’s mainstream health-care system (Subcharoen, 2003). The revival of TTM began in the late 1970s (Anchalee, 2005) when Thailand’s Ministry of Public Health via its 4th Health Development Plan (1977-1981) promoted the use of medicinal plants in primary health care. The policy has continued until today as stated in the 5th– 10th National Health Development Plan (2007-2011).

1.4 Global market for Traditional Medicine and Herbal products
Herbal medicines which formed the basis of health care throughout the world since the earliest days of mankind are still widely used, and have considerable importance in international trade. In 1991, World Health Organization (WHO) cited herbal medicines as lucrative global commodities with a market value of
about US$ 43 billion (Christie, 2001). And according to Inamdar, Edalat, Kotwal and Pawar (2008), the global market for herbal medicines in 2006 stood at over $60 billion. The sale of herbal medicines is expected to get an average annual growth rate of 6.4%. The positive market outgrowth was anticipated by Wang & Ren (2002) that by 2010, market size is expected to boost to US$ 400 billion level. Lang (2008) anticipates sales to reach US$ 5 trillion by the year 2050. The use of medicinal herbs is getting more popular day by day with gradual increase in the percentage of the people using herbal medicines (Sher & Alyemeni, 2010).

The distinctive turning trend among developed countries in recent times towards the use of traditional medicinal systems that involve the use of herbal drugs and remedies is another global driving force (Rath, 2005). Among the importers of botanical drugs, Hong Kong is at the top followed by Japan, Germany and USA.

1.5 Market Competition
Countries such as India and China have purposively sought to develop the traditional medicine sector in order to strengthen their traditional medical heritage and at the same time also enable cost-efficacy in health care delivery to their people. It is also a response to capitalize on the economic opportunity arising from an increasing global demand for herbal products (Bodeke & Budford 2007). Interestingly, based on Schippmann et al. (2002) research, even though Thailand falls behind China, USA, Indonesia, Malaysia and India in terms of plants species, it is ranked above Indonesia, Malaysia, Nepal, The Philippines,
Pakistan and Sri Lanka in possessing medicinal plant species. It ranks fourth with 1,800 species among the medicinal herbal producing countries like China, India and the USA. There is thus an enormous scope for Thailand to emerge as a major player in the global herb based medicines and products by developing its Research and Development capability. Nevertheless, the success of China and India in expanding strongly into the global market has enhance the confidence of other countries including Thailand to develop their own traditional medicine so as to accelerate the integration into the global market (Chuthaputti, 2005).

1.6 Research Objectives
1. To determine Competitive Advantage by using SWOT analysis (strengths, weaknesses, opportunities and threats) and Porter’s diamond of Thai Traditional Medicine and herbal products industry.
2. To study the relevancy of government’s policies toward Thai Traditional Medicine and Herbal product industry.
3. To highlight the degree of distinctiveness of Thai traditional medicine and herbal products against its competitors in the global market.

1.7 Scope of the study
This research will gather information from the period between 2000 to the present date. The study includes a brief history of the development of TTM (Thai Traditional Medicinal) and Herbal products and applies the concept of Competitive Advantage of Nations: Porter’s Diamond Model. A questionnaire survey and
an in-depth qualitative survey method will be carried out to gather
detailed information from the manufacturers of the private sectors
in the Thailand. Quantitative method will be applied for
evaluating the relevancy of government policy.

2. Literature review
2.1 SWOT Analysis
SWOT analysis is a classical strategy analysis tool based on four
fields namely strengths, weaknesses, opportunities, and threats
(Grant 1998, Dyson 2004). According to Isoherranen (2012),
SWOT is a good strategy fits between the external situation of a
company and its internal qualities and characteristics. This
definition influenced SWOT framework in a way that advances
the search for this fit as its core idea. Barney (2002) defines
SWOT as internal resources and capabilities that add Value for
exploiting opportunities or neutralize threats; are not held by
competitors; cannot be easily duplicated or substituted; and can be
fully implement in the organization. Kotter (1994) and later cited
by Clardy (2002) see the codified SWOT analysis as the critical
second step to Kotter’s seven-phase process of strategic planning.
Kotter also recommended analyzing competitors in terms of their
likely reactions to strategic action. This requires a competitive
intelligence capability. Furthermore, in order to identify potential
platforms for achieving competitive advantage, customer value
analysis is also indicated. Porter (1985) and cited by Clardy
(2003) that the analysis of strengths and weaknesses played an
important role in the overall model of strategy. As Porter puts it,
“competitive strategy involves positioning a business to maximize
the value of its capabilities that distinguish it from its competitors.” Strengths would be those capabilities in which the firm enjoys some operating or performance advantage, Weaknesses are those factors that can reduce entry barriers or that diminish bargaining power. Strategic opportunities essentially capitalized on a firm’s competitive position while risks (threats) weaken any positional advantages (Clardy, 2013).

### 2.2 Porter’s Diamond model:

The most comprehensive and well known methods used for the national competitiveness estimation are namely “Diamond” model (Porter 1990), “Double diamond” model (Rugman, 1991) cited by Weiping & Shubin (2002) and “Nine-factor” model (Cho, 2005). For this research, the conceptual model will be based on Michael Porter’s Determinants of National Competitive Advantage (1998). Porter (1990) analyzed why particular industries flourish or decline in particular locations and how competitive advantages help a nation achieve international success in a particular industry. At the national level, productivity can be increased when the industries in a particular country “upgrade” themselves to improve efficiencies (Porter, 1990). For instance, an increase in technology can boost productivity and at the same time, can facilitate the production of differentiated products with much added value for customers. By doing so, industries can compete in more sophisticated and international markets. But in order to maintain or improve this position, an industry requires a continual upgrading process. In other words, some industries, in a particular country, have strong diamonds, while
others have weak ones. In addition to these four determinants of competitiveness, there are two indirect variables in the model: (5) chance and (6) government, Porter (1990). “Diamond Model” is shown in Figure 1.

**Figure 1: The “Diamond” Model**


Porter (1990) states that a nation’s competitive advantage is not dependent on its natural resources alone; it depends on innovation and the capacity to upgrade its products and services, driven by domestic rivalry and aggressive local suppliers and customers. In this study, we applied the Porter’s diamond to Thai traditional medicine and herbal products industry. In order to develop Porter’s diamond theory further, it is necessary to understand the factors that contribute to a country’s competitiveness. These factors included factor condition, demand condition, related and supporting industries as well as strategy and rivalry.
2.2.1 Factor conditions are the factors of production and infrastructure necessary to compete in a particular industry. They include the basic and advanced factors.

- **Basic factors** such as unskilled labor, raw materials, climatic conditions and water resources are inherited and require little or no new investment to be utilized in the production process.
- **Advanced factors** are created and upgraded through reinvestment and innovation to specialized factors, which according to Porter form the basis for the sustainable competitive advantage of a country (Salvatore 2002).

In general, it is also expected that the advanced factors will provide a more sustainable source of competitive advantage than the first.

2.2.2 Demand conditions
Demand conditions in a country are also perceived by Porter (1990) as a source of competitive advantage for a country. Demand as a factor explaining trade is not new. Linder (1961) referred by Smith (2010), first introduced it to explain intra-industry trade. According to the Linder hypothesis, countries with similar per capita incomes will have similar spending patterns. In terms of the Linder hypothesis, these comparable demand conditions in countries lead to analogous demand structures, which enhance intra-industry trade.
Porter, however, focuses more on demand differences than on similarities to explain the international competitiveness of countries. According to him, it is not only the size of the home demand that matters, but also the sophistication of home country buyers. It is the composition of home demand that shapes how firms perceive, interpret and respond to buyers’ needs. This forces home country firms to continually innovate and upgrade their competitive positions to meet the high standards in terms of product quality, features and service demands.

2.2.3 Related and support industries
The third broad attribute of national competitive advantage in an industry is the presence of suppliers or related industries that are internationally competitive. The benefits of investments in advanced factor of production by related and supporting industries can spill over into an industry, thereby helping it achieve a strong competitive position internationally (Hall 2011).

According to Porter (1998c, 2000), it is the external economies of related and support industry clusters, such as networks of specialized input providers, institutions and the spill-over effects of local rivalry, that become the true source of competitive advantage (Porter 2000, 2003).

2.2.4 Firm strategy, structure and rivalry
A fourth determinant of national competitive advantage, according to Porter (1990), is firm strategy, structure and rivalry. The main emphasis here is that the strategies and structures of firms depend
heavily on the national environment and that there are systematic differences in the business sectors in different countries that determine the way in which firms compete in each country and ultimately their competitive advantage. Porter (1990a) identifies rivalry as the most critical driver of competitive advantage of a country’s firms. He believes that domestic rivalry forces firms to be cost competitive, to improve quality and to be innovative.

2.3 Related research on Thailand Traditional Medicine and Herbal products, Porter’s model and Government policies.

The early practice of traditional medicine in Thailand provides an excellent foundation for the recognition of the profound knowledge and indigenous wisdom in alternative medicine. Thais have accepted traditional medicine and acknowledge the effective and preventive quality of medicinal herbs. In the several researches conducted in Thailand showed this readiness in acceptance. Thongraung (2008) interestingly highlights that it is the product and not the advertisement or the ease of purchasing that drives the demand for traditional medicine in Thailand. What this implies is that the confidence for traditional medicine is relatively high and it is not just the desire to support traditional medicine but rather it is a fact of life.

Hence, traditional medicine doesn't separate itself from religious beliefs, human relationships and the environment. It views illness as a sign of imbalances in the body and mind and seeks to restore a person’s physical, mental and spiritual harmony (Uppakara
Pattanakij - Thailand’s 1993 Cultural Outstanding Person Award recipient). Considering this aspect, the dynamic Thai market with its 65 million populations is indeed a strong domain market for Thai traditional medicine. Thai FDA states that capital spending for local traditional medicine products for human use in Thailand increased from Baht 207.91 to 2,543.15 million while imported products from 45.47 to 330.62 million Baht. Similar trend was found in traditional drugs registered which revealed five-fold increase during 1983 to 2009. It was reported likewise during 1994 to 2001 that the registration of locally produced traditional medicines for humans had increased and the production value increased from Baht 414.86 to 736.91 million. This reflected the popularity of the using or consuming of the natural products (Chokevivat, 2005). Thailand is rich in natural resources. The lush teeming rain forests that still cover areas of Thailand are a storehouse of botanicals that have been used for medicinal purposes for centuries (Gordon & Horn, 2011). There is therefore an abundant supply of herbs needed for traditional herbal medicine, native cuisine, salutary beverages, and cosmetics. The poll conducted by Kasikorn Research Center Co., Ltd., it estimated that the total expense on all types of herbal products in 2005 were about 47,520 million Bahts (1,200 million US$). Of this, 8,810 million Bahts (220.2 million US$) were the expense on herbal medicines of which the indications are based on traditional medicine knowledge or were registered as traditional medicines. Interestingly, the survey illustrated strong consumer demand for herbal medicines not just in the central and Northeastern region of Thailand, but also the metropolitan capital of Bangkok.
(Chuthaputti, 2009). The strength of several related and supporting industries in the country spur the growth and rapid progress of the Thai traditional medicine industry. These industries comprises of herbal cosmetics, medical tourism, Thai spa and massage, biotechnology. The market for herbal cosmetics has seen a steady growth. Herbal cosmetics are increasingly popular among teenagers and working women. Total value of the domestic market amounts to about Baht 2 billion. The rate of growth has been about 30 per cent a year. Regarding export, significant outlets for Thai herbal cosmetics are mostly in Asia -- Japan, Hong Kong, India, Singapore and countries in the Middle East. In addition, the U.S. and China are two new markets with strong potential (Bangkok Bank, 2005) According to related industry, Thailand Spa industry collectively generated revenue of 8.3 billion Thai Baht (USD263 million) in 2007, an increase of over 200% since 2002. The spa industry response to increased demand has been to develop its human resources to encourage a number of massage and spa training centers, salon training schools and freelance trainers offering spa training and recruitment services (Kajonborrirra, 2006).

For relevancy of government policies, Kuanpoth (2010) cites the importance of governmental support to all industry particularly for the developing countries like Thailand. Kuanpoth highlights that the entering to foreign market for tradition medicine and herbal product particularly need high support from the government sector. As such, the Thai government has responded and set some policy for these products and make the product more competitive
in global market such ensure that traditional medicines, texts, traditional medical formulas, medicinal plants and herbs are protected in terms of intellectual property. The government also set up One Tambon, One Product campaign to promote the quality and standard of Thai local products quality and standards to the world market and have sustainable development (Lungtae & Noknoi, 2012). Kader (2009) in his study on 220 small business entrepreneurs in the South Pacific region listed nine factors that would contribute to the success of small businesses; but the most critical factors were good management, access to financing, personal qualities and satisfactory government support. Yusuf, 1995 cited by Kader (2009) finds that government assistance is more critical for the success of small indigenous entrepreneurs than the non-indigenous ones. According to Sinha & Bharti (2012), evaluation can be an excellent learning tool as well as a means to improve program performance and demonstrate accountability. Effectiveness of the government policy can ensure four key benefits. Firstly it improves management of programs, projects and supporting activities and to ensure optimum use of funds and other resources. Secondly from learning the experiences, it improves the relevance, methods and outcomes of the cooperative programs. Thirdly, it strengthens the capacity of co-operating government agencies, non-governmental organizations (NGOs) and local communities to monitor and evaluate. Fourthly, it meets the requirements of donors to see whether their resources are being used effectively, efficiently and for agreed upon objectives.
3. Research Methodology

3.1 Research method
Qualitative approaches will be used in this research. In-depth interviews with industry experts will be employed for this study. In-depth interview is considered to be the most valuable data collection method and allowing respondents as much freedom in their answer as possible. (Blery & Sfetsiou, 2008) In addition, qualitative method gives a useful detail for understanding viewpoints, allowing researcher to gain a better understanding of the problems (Ngamkroeckjoti, 2000).

3.2 Sampling
Purposive sampling has been applied in order to focus on business owners in the industry of TTM and Herbal products. The sample for this research will be selected from large to small enterprise such as the companies those certified by GMP to very small business like spa and herbal product retailers. Content analysis will be deployed to analyze the data. The questions are divided into 3 parts. Part one encloses the company’s SWOT in sequence and Part 2 covers Porter’s model that relevant to TTM and herbal products, and part 3 was the government policies that are relevant to their industries.

3.3 Data collection
This research will be carried in the Bangkok Metropolitan city and other surrounding provinces such as Samutprakarn, Samut Sakorn, Nakorn Prathom, Nonthaburi, Ayutthaya, and Pratumtanee, and Prajuab Kirikhan.
4. Research Result

The research findings highlighted several important strengths of the traditional medicine and herbal products industries. Among the strengths are knowledge of Thai wisdom in traditional herbals, expertise in organic production, good reputation and image, extensiveness of scientific researches, skills and technology for extraction, raw materials sourced locally and overseas. The weaknesses comprise of factors such as high cost of production, quality of raw materials, shortages of raw materials especially in the low harvesting periods, high dependency on overseas distributors, weak international marketing promotional strategies. Opportunities in the industry are the increasing demand in both domestic and international market, greater awareness of Thai traditional medicine and herbal products especially with the trend of “Back to the nature” and preference for organic products consumption. The integration of Asean Economic Corporation and supportive policies of the government and local administrative office also create better opportunities. Several factors attributed to the threats in this industry. Some of these threats include strong competition from both the local and international market, weak distribution channels, weakening global economy, the country’s political problems and shortages of raw materials. In terms of relevancy of government policy in the industry, the larger enterprises see governmental policies towards regulation and deregulation as most relevant. The SME enterprises on the other hand, perceived both marketing and financial support and deregulation as most relevant. Family business perceived
marketing and financial support as most relevant. Base on the Porter model, many of the Thai traditional medicine manufacturers indicated that the industry has benefitted from favorable factor such as access to raw materials which allowed for quality and standard assurance of raw materials. The study also found that the industry was still dependent on the domestic market and the regulations of exporting medicine still main barrier to enter some markets.

5. Conclusion, Discussion and Recommendations
5.1 Conclusion
Strengths and opportunities in this industry are derived from internal and external factors of their companies which indicated the competitive advantage over potential competitors. The result showed that strengths are the accessibility to raw materials, wide acceptance among overseas consumers, and the accreditation by international organizations.

The opportunities of TTM and herbal products composed of the increasing demand in both domestic and international market and the integration of ASEAN Economic Corporation. Weaknesses are explained as high cost of production, quality of raw materials, and strong dependency on overseas distributors. Threats in this industry related to the intense competition from both local and international markets.

With regard to Porter model, Thai traditional medicine manufacturers have benefitted from favorable demand conditions
particularly the size of home market. Nonetheless, this industry has also gained substantial market shares in Asia, EU and U.S.A as well. However, in terms of structure and rivalry, this industry faces high competition. Adding to this, government policies, such as marketing and financial support, regulate/deregulate are most relevant to this industry. As for related industries and supporting Industries, the study reveals that many of these companies have positive influences of supporting industries of the Thai traditional medicine and herbal products.

5.2 Discussion
Lungtae & Noknoi (2012) research found that the Thai government also set up One Tambon, One Product campaign to promote the quality and standard of Thai local products quality and standards to the world market and have sustainable development for this industry. It is comparable to this research, which small enterprises agreed that the OTOB project has vital impact for their business, particularly for competing in a local market and supporting of government promotion in terms of marketing and financial support. In addition, as cited by Kader (2009), Yusuf’s 1995 studies on small business entrepreneurs in the South Pacific region showed a list of nine factors that would contribute to the success of small businesses. However, the most critical factors were good management, access to financing, and satisfactory government support. This research also indicated parallel small businesses are appreciated from this policy. For potential competitors, from the 2010 Global Manufacturing Competitiveness Index ranked Thailand 12th among the world top
manufacturing countries with China and India topping the ranking (Deloitte Touche Tohmatsu, 2010). Similar to this study, both countries remain the strongest Thai competitors in the global market. The study also reveals that many of these companies especially the traditional herbal producers realized the positive influences of supporting industries have on the growth and development of the Thai traditional medicine and herbal products. Similarly, Hall (2011) discover that the benefits of investments in advanced factor of production by related and supporting industries can spill over into an industry, thereby helping it achieve a strong competitive position internationally.

5.3 Recommendations
To deal with the industry weaknesses, the researcher suggests that the industry has to enhance its strength by building up core competencies of the industry. The strengthening will help to protect the threatening from competitors especially in global market. In order to get better results for the next research, future research should focus on consumers’ buying behavior as such research focuses on the main market which is the domestic market. As competition in the industry is very high, consumer behavior in herbal product consumption or consumer satisfaction of herbal product should be conducted. Since the qualitative approach has been used for this research, the quantitative should be implemented for next research in order to confirm the reliability of the finding that the Thai traditional medicine and herbal products have competitive advantage in the global market.
The researcher also recommends a study on the competitors’ products and strategies especially the international competitors. In so doing, Thai TTM and herbal producers will be in a better position to evaluate the industry’s competitive advantage in the global market.

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