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.

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ACKNOWLEDGEMENT

I would like to dedicate my acknowledgement to University of the Thai Chamber of Commerce.

Thanita Kongrerk
May 2013
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter 1: Introduction</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Significance of the Research</td>
<td>2</td>
</tr>
<tr>
<td>1.3 Background of Thailand Traditional Medicine and Herbal products</td>
<td>3</td>
</tr>
<tr>
<td>1.4 Global market for Traditional Medicine and Herbal products</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Market Competition</td>
<td>8</td>
</tr>
<tr>
<td>1.6 Research Objectives</td>
<td>12</td>
</tr>
<tr>
<td>1.7 Scope of the study</td>
<td>13</td>
</tr>
<tr>
<td>1.8 Benefits of Research</td>
<td>13</td>
</tr>
</tbody>
</table>

Chapter 2

Literature review

| 2.1 SWOT Analysis | 14   |
| 2.2 Porter’s Diamond model: | 17   |
| 2.2.1 Porter’s diamond and competitive advantage | 19   |
| 2.2.2 Factor conditions | 20   |
| 2.2.3 Demand conditions | 21   |
| 2.3.4 Related and support industries | 23   |
| 2.3.5 Firm strategy, structure and rivalry | 26   |
| 2.4 Theory of Government supports enterprises | 28   |
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.1 Factors measuring success of government assistance to small business</td>
<td>31</td>
</tr>
<tr>
<td>2.5 Critical Appraisal of Porter’s Competitive Advantage of Nations</td>
<td>32</td>
</tr>
<tr>
<td>2.6 Chance and Government</td>
<td>34</td>
</tr>
<tr>
<td>2.7 Porter’s Diamond Theory and competitive advantage of Thailand Traditional Medicine and Herbal products</td>
<td>34</td>
</tr>
<tr>
<td>2.7.1 Factor conditions (Basic factors)</td>
<td>34</td>
</tr>
<tr>
<td>2.7.2 Advanced factors</td>
<td>36</td>
</tr>
<tr>
<td>Research support &amp; facilities</td>
<td></td>
</tr>
<tr>
<td>2.7.3 Enhancing Human Capital</td>
<td>36</td>
</tr>
<tr>
<td>2.7.4 Communications /infrastructure</td>
<td>37</td>
</tr>
<tr>
<td>2.8 Manufacturing competitiveness</td>
<td>37</td>
</tr>
<tr>
<td>2.9 Demand Condition</td>
<td>38</td>
</tr>
<tr>
<td>2.10 Related and Supporting Industries</td>
<td>39</td>
</tr>
<tr>
<td>2.10.1 Herbal cosmetics</td>
<td>39</td>
</tr>
<tr>
<td>2.10.2 Medical Tourism</td>
<td>39</td>
</tr>
<tr>
<td>2.10.3 Biotechnology industry</td>
<td>40</td>
</tr>
<tr>
<td>2.10.4 Thailand Spa industry</td>
<td>41</td>
</tr>
<tr>
<td>2.11 Strategy, structure and rivalry in TTM and herbal product industry</td>
<td>41</td>
</tr>
<tr>
<td>2.12 Government policy for TTM and Herbal products</td>
<td>42</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter 3: Research Methodology</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Research method</td>
<td>45</td>
</tr>
<tr>
<td>3.2 Data Analysis</td>
<td>45</td>
</tr>
<tr>
<td>3.3 Data collection</td>
<td>46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 4: Research result and Analysis</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Research result</td>
<td>47</td>
</tr>
<tr>
<td>THANN-Oryz Co., Ltd</td>
<td>47</td>
</tr>
<tr>
<td>Nawua Traditional Medicine shop</td>
<td>49</td>
</tr>
<tr>
<td>Hatakabb Co., Ltd</td>
<td>50</td>
</tr>
<tr>
<td>Baan Thai Herb</td>
<td>52</td>
</tr>
<tr>
<td>Harnn Natural Home Spa</td>
<td>53</td>
</tr>
<tr>
<td>Chao Phraya Aphai Phubet Hospital</td>
<td>54</td>
</tr>
<tr>
<td>New concept Co., Ltd.</td>
<td>56</td>
</tr>
<tr>
<td>Baan Idin</td>
<td>57</td>
</tr>
<tr>
<td>Grand Mum</td>
<td>58</td>
</tr>
<tr>
<td>Numbud</td>
<td>59</td>
</tr>
<tr>
<td>Bangkok Aloe</td>
<td>60</td>
</tr>
<tr>
<td>Aloe Herb Pimple</td>
<td>61</td>
</tr>
<tr>
<td>Nutrarich or Siam Natural product</td>
<td>62</td>
</tr>
<tr>
<td>Natural by Nattaya</td>
<td>63</td>
</tr>
<tr>
<td>4.2 SWOT Analysis of TTM and Herbal products</td>
<td>64</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>4.2.1 Strength</td>
<td>64</td>
</tr>
<tr>
<td>4.2.2 Weaknesses</td>
<td>66</td>
</tr>
<tr>
<td>4.2.3 Opportunity</td>
<td>67</td>
</tr>
<tr>
<td>4.2.4 Threats</td>
<td>68</td>
</tr>
<tr>
<td>4.3 Analysis Porter’s Model of TTM and Herbal products</td>
<td>68</td>
</tr>
<tr>
<td>4.3.1 Factor Conditions</td>
<td>69</td>
</tr>
<tr>
<td>4.3.2 Demand Conditions</td>
<td>72</td>
</tr>
<tr>
<td>4.3.3 Firm Strategy, Structure and Rivalry</td>
<td>74</td>
</tr>
<tr>
<td>4.3.4 Related and Supporting Industries</td>
<td>77</td>
</tr>
<tr>
<td>4.4 Relevancy of Government Policy</td>
<td>78</td>
</tr>
<tr>
<td>4.4.1 Role of Government</td>
<td>79</td>
</tr>
<tr>
<td>4.5 Encourage and stimulate growth in the industry</td>
<td>80</td>
</tr>
<tr>
<td>Chapter 5: Conclusion, Discussion, Limitation and Recommendations</td>
<td>82</td>
</tr>
<tr>
<td>5.1 Conclusion</td>
<td>82</td>
</tr>
<tr>
<td>5.2 Discussion</td>
<td>86</td>
</tr>
<tr>
<td>5.3 Limitation</td>
<td>87</td>
</tr>
<tr>
<td>5.4 Recommendations</td>
<td>87</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>SWOT strategy analysis framework</td>
<td>14</td>
</tr>
<tr>
<td>Figure 2</td>
<td>The “Diamond” Model</td>
<td>19</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Numbers and Plants used medicinally Worldwide</td>
<td>9</td>
</tr>
<tr>
<td>Table 2</td>
<td>Relevancy of Government Policy</td>
<td>79</td>
</tr>
</tbody>
</table>
1.1 Introduction
In August 2009, Thailand officially launched its Creative Thailand Policy sending a clear message to the country’s industries, governmental agencies and educational institutions, that the Government sought their support for reform in its key economic sectors. Thailand’s National Social and Economic Development Board (NESDB, 2009) recognizes the significance of creative economies to promote future growth and enhance international competitiveness by including the concept in its 11th 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 benefits 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 and other interested about country’s situation in particularly when the kingdom is preparing itself for the single Asean open market by 2015. In all, this research will enable the assessment of the kingdom’s international
commitments towards Thai traditional medicine as well as relevant herbal products.

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 abandonment of the systematic teaching of TTM in the medical school sparked the decline in TTM acceptance, especially among people in the urban areas, and the status of TTM practitioners in the country’s healthcare system for over 60 years. 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).

The framework and the direction for the development of the country’s macroeconomics under the 9th and the 10th Plan have
been based on King Bhumibhol Adulyadej’s philosophy of “Sufficiency Economy”, which aim at achieving good health, good service, sufficiency life style and peaceful society. One of the desired characteristics of sufficiency health system is the use of technology appropriately and wisely with the emphasis on the use of Thai traditional medical knowledge and being self-reliant.

The gear towards greater use of Thai traditional medicine gained further momentum with the government’s 11th National Economic and Social Development Plan, 2012-2016. It strives to develop Thailand into a creative economy hub in the ASEAN region giving priority to traditional knowledge particularly Thai traditional medicine which uses local knowledge of herbs, in combination with science and technology, technical standards, qualification requirements, certification, and marketing to generate income.

Creativity is a key component of “creative economy”, an emerging concept of the world’s economy in the twenty-first century. Indeed, the rejuvenation of Thai Traditional Herbal medicine has signified a tremendous effort on the part of the Thai government and its people. This research is therefore, timely and in line with the current direction and reinforcing future development and progress of the Thai medicinal herbs into the new era of alternative medicine. (UNCTAD, 2008)
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.

With the increase in demand for MAPs, such trade is expected to grow further to US$ 5 trillion by the year 2050 (Lang, 2008). It is also estimated that Europe alone annually imports about an average market value of US$ 1 billion from Africa and Asia (Larsen and Smith, 2004, Sher and Hussain, 2009). 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).

In addition, the global wellness spa industry which is vastly based on TCAM is valued at $255 billion annually (Cohen & Bodeker, 2008). Many of the major modern drugs such as quinine, salicylic acid, artemisinin have been discovered from folk knowledge.
According to NAPRALERT database of the University of Illinois, Chicago, 74% of the 119 pure compound based modern drugs derived from plants have been based on leads provided by traditional medical knowledge and the modern applications are similar to the traditional ones (Unnikrishnan, 2009). As the economic importance of traditional knowledge and medicinal plants based products and services grow they provide employment opportunities to various sections of people.

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. (Calixto, 2005) highlighted the significant factors that contributed to the expressive rate of market growth of herbal medicines worldwide. Some of these driving forces included the preference of consumers for natural therapies, concern regarding undesirable side effects of modern medicines, the belief that herbal drugs are free from side effects, great interest in alternative medicines, preference of populations for preventive medicine due to increasing population age, the belief that herbal medicines might be of effective benefit in the treatment of certain diseases where conventional therapies and medicines have proven to be inadequate, tendency towards self-medication, improvement in quality, proof of efficacy and safety of herbal medicines and high cost of synthetic medicines. Hence, there is an urgent need to explicitly recognize the critical importance of the global trend.
The increasing popularity of alternative medicine has in turn accelerated the global trade of herbal raw materials and herbal products, and created high scope for the Afro-Asian as well as Latin American countries, which are the major suppliers of herbal raw materials in the world (Rath, 2005). Germany is by far the largest market and within Europe, largest consumer of medicinal plants, spending £ 1.4 billion (US$ 2.2 billion) annually. France is second (£ 116 million) and the United Kingdom third (£ 88 million) (Wakdikar, 2004).

Among the importers of botanical drugs, Hong Kong is at the top followed by Japan, Germany and USA. These assessments of international trade in medicinal plants include plants and their parts like roots, tubers, wood extract, bark, leaves, flowers, fruit and seeds. Germany and the USA are among the top four countries in import as well as export, expressing their major role as a turntable for medicinal plant raw materials worldwide. However, the value of medicinal plants as a source of foreign exchange for developing countries depending on the use of plants as raw materials in the pharmaceutical industry.

This “back-to-nature” and “health conscious” global trends that have gone on since the 1990s have also partly contributed to the welcoming and acceptance of herbal medicine and dietary supplements as a means of health care and health promotion in Thailand and many other countries around the world. As herbal medicines and other natural products for health and beauty are regarded as safer products than chemical-based ones and the
number of consumers who prefer such products has gradually increased, the domestic and global markets for these products have greatly expanded. The increasing trend can be reflected by the production value of locally produced traditional medicines for humans. Within a decade (1994-2004), the production value of traditional medicine increased by 234 times from 414.862 million Bahts to 1388.669 million Bahts. The accelerating production value coincided with the shape increase in the number of registered locally produced traditional. To a great extend, it reflects the strong growing interest and demand for Thai traditional medicine (Chuthaputti, 2005).

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). Nonetheless, 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 (Table 1).

Table 1: Numbers and Plants used medicinally worldwide (Schippmann et al., 2002)

<table>
<thead>
<tr>
<th>Country</th>
<th>Plants species</th>
<th>Medicinal plant species</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>26,092</td>
<td>4,941</td>
<td>18.9</td>
</tr>
<tr>
<td>India</td>
<td>15,000</td>
<td>3,000</td>
<td>20.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>22,500</td>
<td>1,000</td>
<td>4.4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>15,500</td>
<td>1,200</td>
<td>7.7</td>
</tr>
<tr>
<td>Nepal</td>
<td>6,973</td>
<td>700</td>
<td>10.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>4,950</td>
<td>300</td>
<td>6.1</td>
</tr>
<tr>
<td>Philippines</td>
<td>8,331</td>
<td>850</td>
<td>9.5</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1,214</td>
<td>550</td>
<td>16.6</td>
</tr>
<tr>
<td>Thailand</td>
<td>11,625</td>
<td>1,800</td>
<td>15.3</td>
</tr>
<tr>
<td>USA</td>
<td>21,641</td>
<td>2,564</td>
<td>11.8</td>
</tr>
<tr>
<td>Vietnam</td>
<td>10,500</td>
<td>1,000</td>
<td>17.1</td>
</tr>
<tr>
<td>Average</td>
<td>13,366</td>
<td>1,700</td>
<td>12.5</td>
</tr>
<tr>
<td>World</td>
<td>422,000</td>
<td>52,885</td>
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</tr>
</tbody>
</table>

In response to this raising demand in medicinal herbs, developing countries such as China, India, Kenya, Indonesia and Thailand become greater entrenched into the industry. 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).

The 2005 National Policy on Traditional Medicine and Regulation of Herbal Medicines report conducted by WHO Global Survey indicated that there are over 2,000 herbal medicines registered in
Thailand. In addition, a total of 16 herbal preparations (three traditional recipes and 13 preparations from five single herbs) are included in the national list of essential drugs, A.D. 1999. General herbal medicines are sold in pharmacies as over the counter drugs, or licensed practitioners may make their own herbal preparations and sell them to patients.

For registered household herbal medicines, there are no restrictions on sales. The report also revealed that in 1997, herbal imports totaled 177 million baht (US$4.46 million); locally made product sales were 252 million baht (US$ 6.35 million), making a total of 429 million baht (US$ 10.81 million). In 1998, imports fell to 100 million baht (US$ 2.52 million), and sales of locally made products rose to 486 million baht (US$ 12.2 million), making a total of 586 million baht (US$ 14.8 million). In 1999, import sales rose to 114 million baht (US$ 2.87 million) and sales of locally made products reached 550 million baht (US$ 13.9 million), making a total of 664 million baht (US$ 16.7 million). The total figures were only 1.8%, 2.0% and 1.2%, respectively, of the annual sales of modern medicines in 1997-99. The table on the following page highlights the import value of traditional medicines for human use in Thailand from the period of 1994 to 2004.

According to the 2007 Country Report on the Thai Herbal Medicinal Products Industry (Wongyai, 2007), there are 995 manufacturers producing herbal medicines and of which 293 are in Bangkok. This indicate a relative large increase considering
there were only 616 traditional medicine manufacturers in 1997 and only reached 861 by 2003 (Chokevivat, 2005). However, when compared with the value of modern medicines, in 2001 the production and imported values of traditional medicines were only about 2 per cent of that of modern medicines. This is partly because most of the traditional medicine manufacturers in Thailand operate on a small to medium scale and only a few are large-scale industries. Therefore, both the public and private sectors still have a lot of work to do to improve this industry and to increase the demand for their products. In 2010, there are 20 factories that meet the GMP standard with only few factories producing essential oil and herbal extracts.

They are considered essential for exporters. And as for those without the GMO standard certification, the factories focus on domestic consumers. In view of the potential of the global market for medicinal herbs and an effort to give these herbal-medicine firms a boost ahead of Asean integration, the Thai government has prepared to establish five factories worth a total of one billion baht to produce herbal medicines to prepare local operators for the formation of the Asean Economic Community (AEC) in 2015. The five factories, to be run by members of the Thai Herbal Industry Association with a budget from the Public Health Ministry, are planned for Bangkok and four provinces. The factories would be contracted to manufacturers that want to develop their own brands and could be operational in 2013.
Full market liberalization under the AEC would intensify competition among the region's herbal medicine producers and put Thai businesses at serious risk. At present, the country produces as many as 5,000 types of herbal medicines and some may be unable to compete with imports. Thus, the Thai government launches several projects via its Herbal Supply Chain Development Strategy on AFTA Impact Reduction under National Drug Lists, with the aims to educate entrepreneurs for their better understanding in production processes of herbal medicines in accordance with international standards. In so doing, it cushions local industry from the impact from the influx of foreign drugs to Thailand as a result of liberalization under AFTA, while Thai medicinal products would lose their advantages if production is not up to standard.

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 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.

1.8 Benefits of Research
The key benefit to this research is the provision of an in depth understanding of the TTM and herbal products which is critical for identifying alternative marketing and management strategies for existing and future producers and sellers in this trade.

The research is also beneficial in terms of identifying present market trend for Thailand traditional medicinal industry, facilitating decision making especially in the market expansion strategies, create greater understanding of competitors operating in the Traditional Medicine and herbal products Market. In addition, it also identify possible key markets for Thai traditional medicinal products and provide useful information for the developing business strategies for traditional medicine global market to the business owners as well as policy makers.
Chapter 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 Hill & Westbrook 1997 and referred by Friesner (2004) (Figure 1). SWOT analysis and strategic planning originated from the academics of Harvard Business School in the 1960s. These scholars defined good strategy as one that guarantees fit 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 (Isoherranen, 2012).

Figure 1: SWOT strategy analysis framework

The SWOT analysis framework has two distinctive parts. First, it looks into the internal strengths and weaknesses of a business, and then provides an external view of opportunities and threats (Luffman et al. 1996; Fairbrass, 2002). The classification of items
in this four-field framework can be aided by a question list specially designed for this purpose (Lindroos, 2006).

Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a commonly used instrument which scans internal strengths and internal weaknesses of a product or service industry and highlights the opportunities and threats of the external environment (Pesonen et al., 2000; Rauch, 2007). Generally SWOT is a list of statements or factors with descriptions of the present and future trend of both internal and external environment; the expressions of individual factors are general and brief which describes subjective views.

Barney (2002) defines SWOT as internal resources and capabilities that add Value for exploiting opportunities or neutralize threats; are not held by competitors (Rare); cannot be easily duplicated or substituted (Inimitability); and can be fully implement (Organization), (Porter 1985, Carpenter, 2002) on the other hand claims that those areas or capabilities in which a competitor enjoys some operating or performance advantage.

The application of SWOT analysis according to Chan (2011) is not limited to profit-seeking organizations. Usually, it is an effective way of gathering and classifying information, illustrating particular matters, and generating strategic planning ideas for a business, Zhu (2010). It can be used for business planning, strategic planning, competitor evaluation, marketing, business and product development and research reports.
Nimmanphatcharin (2003) points out that strategic management involves aligning an organisation’s opportunities and threats with its strengths and weaknesses. The researcher also sees SWOT as useful in helping an organization to identify its sustainable competitive advantages.

This point of view is further emphasized by Wong (2007) in his research on A Process View of SWOT citing that Organizations do not exist in a vacuum but rather exist, co-exist, compete and cooperate in an interrelated environment characterized by complexity. Understanding this environment is fundamental to formulating strategy, decision making and strategic planning. As a result, there is a proliferation of strategic planning tools to enable managers to formulate competitive strategies in line with the requirements of their business environments. These include strengths, weaknesses, opportunities and threats (SWOT) analysis, which may well be used more often than any other management technique in the process of decision making.

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. Initially, environmental trends are identified and then classified as either opportunities or threats. Opportunities are those market needs that a firm can supply profitably; threats, those trends that portend deterioration in sales or profits. Then, managers and/or consultants rate a generic list of marketing, financial, manufacturing and organizational factors on a continuum from a major strength to a major weakness.
Kotter also recommended analyzing competitors in terms of their likely reactions to strategic action. This requires a competitive intelligence capability. Further, 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, like factors that increase entrance barriers or that increase bargaining power vis-a-vis buyers and suppliers. 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. Strategy emerges from matching a firm's strengths (particularly its distinctive assets) to the opportunities or risks present in its environment. Finally, Porter noted how detailed analysis would be necessary to produce a SWOT assessment (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. Porter (1990) argues that productivity is the main factor for international competitiveness and that the standard of living of a country’s population can be improved as a direct result of increases in that factor. Productivity relies on increasing workers’ skills, developing technologies, producing quality products, and reducing costs. 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 2.
2.2.1 Porter’s diamond and competitive advantage
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. Local culture, economics and history all play an important part. These locally developed attributes can then be used for competitive advantage within sectors in the international market. Porter argues that sustainable economic growth is more aligned to the ability to innovate and upgrade and that no nation will be competitive in every industry but will be competitive in certain fields.

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.

2.2.2 **Factor conditions** are the factors of production and infrastructure necessary to compete in a particular industry. They include the labor skills and natural resources that in early stages of development can provide an advantage. Porter (1998) distinguishes between 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. The standard trade theories also recognize that there are many different resource explanations of comparative advantage. Even though they are based on a set of simplifying assumptions, relaxing those assumptions modifies, but does not invalidate the theory (Salvatore 2002).

In general, it is also expected that the advanced factors will provide a more sustainable source of competitive advantage than the first. Unlike the naturally endowed basic factors, advanced factors are a product of investment by individual, companies and governments. Basic factors can provide an initial advantage that is subsequently reinforced and
extended by investment in advanced factors. Conversely, disadvantages in basic factor can create pressure to invest in advanced factors. Hence, the relationship between advanced and basic factor is complex (Hall, 2011).

2.2.3 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.

More specifically, Porter (1990a, 1998a) regards the essential conditions of demand as: a home demand that anticipates and leads international demand, industry segments with a significant
share of home demand, and sophisticated and demanding buyers. What this means is that, Porter gives greater emphasis on the role home demand plays in upgrading competitive advantage. As such, firms are typically most sensitive to the needs of their closest customers. Thus, the characteristics of home demand according to Hall (2011) are particularly important in shaping the attributes of domestically made products and in creating pressures for innovation and quality.

However, different demand conditions in countries, leading to different demand structures, can determine location economies of increasing returns, as explained by the new trade theories. Location economies of increasing returns that keep an industry in a specific location, due to a specific set of demand conditions, will be difficult to be competed away by industries in another country (Krugman & Obstfeld 2003, Arturo & Estrada, 2004). In such cases, comparative advantage is determined by demand conditions rather than differences in factor conditions. These demand conditions, as explained by Porter, do influence the underlying resource differences between countries and a country’s relative location advantages as explained by the new trade theories.

The nature of the differences in sources, driven by demand conditions, could be productivity differences, differences in factor endowments or differences in the scale of production (Siggel 2006). The differences in sources, irrespective of the causes, thus ultimately lead to gains from trade. In this respect, Porter’s
demand conditions enhance our general understanding of location differences rather than invalidate the trade theories as discussed.

2.3.4 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).

Much of the debate around location as a source of competitive advantage has to do with the way in which the modern global economy is viewed. On the one hand, scholars see it as homogenization of economies (Levitt 1983), and on the other hand as specialization of economies as explained by the standard economic theory. In the former case, it is believed that almost anything could be moved or sourced around the globe. In the latter case, it is believed to result in an intense specialization and clustering of competitive advantages in different locations as the world becomes increasingly integrated.

The introduction of related and support industry clusters as a separate determinant of national competitive advantage has been viewed as one of the most important contributions of Porter’s Diamond Theory (Teece 1996). 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). The cluster represents an environment in which learning, innovation and operating productivity can flourish. He believes that it is these kinds of localized clusters that are a prominent feature of virtually any advanced economy, but are lacking in developing countries, which limits productivity growth in those economies.

The concept of external economies is not a new idea and was used by Graham in 1923 (as cited in Krugman & Obstfeld 2003) as a valid argument for protecting infant industries. It can even be traced back as far as 1920 to Alfred Marshall (as cited in Krugman & Obstfeld 2003), who was preoccupied with the phenomenon of industrial districts (geographical concentrations of industry) that could not be explained by natural resources. Marshall argued that clusters support specialized suppliers, allow labor market pooling and help knowledge spill-over, all of which are still valid today (as cited in Krugman & Obstfeld 2003). External economies, resulting from local clusters, are thus among the most important influences on learning and eventually the ultimate source of many of the scarcest resources and capabilities of firms (Porter 1997b, 1998b). As a result, it becomes a legitimate international competitive issue from a firm’s perspective. Porter (1998c) claims that the core challenge of economic development is to build clusters in order to realize external economies and that the cutting-edge public policy issues should be focused on removing obstacles to productivity improvement and innovation in cluster development. This view is
supported by the strategic trade policy argument, but offers a potential justification for a neo-mercantilist view of trade (Krugman 1992) and thus a movement away from the free trade argument in economics towards a new form of protectionism.

Although there appears to be a theoretical justification in the economic and business management literature for a kind of new-mercantilism to promote external economies, the critique against such intervention by government is basically the same as the critique against strategic trade policy as discussed in the previous section. More specifically, the budget constraint, the potential role of predatory trade policies and the abuse by special interest groups all still apply. Furthermore, the welfare effects of trade intervention based on external economies are far more ambiguous than the effects of comparative advantage and internal economies of scale, and may lead to a distortion of specialization patterns for a specific country (Krugman & Obstfeld 2003).

Porter (1990a, 1998c) implicitly acknowledges this by not including governments as an attribute of the diamond, but rather sees government as an influencing factor through economic policy. Finally, Porter (1990a) views all the determinants as constituting an interactive system, and it is this interplay that he believes leads to the competitive advantage of countries. It is his focus on the diamond as a descriptive interactive system that is easy to comprehend that has perhaps led to general acceptance of his framework in the management literature.
2.3.5 Firm strategy, structure and rivalry
A third 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. According to Porter (1990a), it is firms that ultimately compete internationally, but it is the international competitiveness of a country that shapes the international competitive advantage of firms.

It is this assumption that a country’s competitiveness ultimately determines a firm’s international competitive advantage that led to the belief that countries, like firms, compete internationally and thus that the international trade engagement of countries is a negative sum game, as it is in the case of firms. This is in sharp contrast to the general understanding in trade theory that trade is a positive sum game irrespective of the nature of the sources from which such gains from trade are derived.

For competitive advantage, all four components must be present, as strategies based on fewer components can easily be matched by other countries (Staskevičiūtė and Tamošiūnienė, 2010)
Nevertheless, since its first application the diamond approach has been commended and criticized (Rugman 1991; Dunning 1993; Cho 1994; Brouthers, Brouthers 1997; Moon et al. 1998). A company’s core competency is the one thing that a company can do better than its competitors. A competitive advantage can entail a variety of company characteristics; for example, customer focus, brand equity, product quality, Research and Development focus. To be effective a competitive advantage must be Difficult to mimic, Applicable to multiple situations, Unique, Sustainable and Superior to the competition (Porter, 1998)

At the heart of a competitive advantage is a firm’s positioning in the marketplace as defined by their marketing strategy. There are two basic types of competitive advantages: lower cost and differentiation. Lower cost is the ability of a firm to design, produce, and market a comparable product more efficiently than its competitors. At prices at or near competitors, lower cost translates into superior returns. Differentiation is the ability to provide unique and superior value to the buyer in terms of product quality, special features, or after-sale service. Differentiation allows a firm to command a premium price, which leads to superior profitability provided costs are comparable to competitors (Porter, 1985, Lall, 2001)

Competitive advantage of either type translates into higher productivity than that of competitors. The low-cost firm produces a given output using fewer inputs than competitors require. The
differentiated firm achieves higher revenues per unit then competitors (Porter, 1985).

*Innovation* refer to the firms are able to create competitive advantages by perceiving or discovering new and better ways to compete in an industry and bringing them to market which is ultimately an act of innovation. *Innovation* includes improvement in technology and better methods of doing things. Innovation can be manifested in product changes, process changes, new approaches to marketing, new forms of distribution, and new conceptions of scope. Innovation is the result of organizational learning as well as from research and development. Innovations lead to shifts in competitive advantage. The most typical causes of innovations that shift competitive advantage are: New Technologies, New or shifting buyer needs, the emergence of a new industry segment, (G Staskevičiūtė and R Tamošiūnienė, 2010)

### 2.4 Theory of Government supports enterprises

Kuanpoth (2010) cited the importance of governmental support to all industry particularly for the developing countries like Thailand. Kuanpoth highlighted 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).

(Robson 1998, Chan et al, 2009) cited that government expenditure in an area can boost new firm formation by stimulating the local market. The business political complex of local government may also be an important factor. Robson (1998) also added that there is some evidence that SME policy initiatives do have an effect on new firm formation. Some of the results imply that regional policy based on measures designed to increase the rate of new firm formation in many disadvantaged areas faces a difficult socio-economic environment.

According to Callanan, et. al (2004), Economists justify government intervention in a market economy when there is evidence of ‘market failure’. The role that public policy makes towards smaller firms in a market economy has led to an overall net improvement in welfare to the economy as a whole and being a major resource of job creation in a market economy.

The second argument bases on Bannock and Peacock (1989) finding is that there is a market failure to small firms due to their comparative weakness in the market place and their relatively high unit cost of compliance with government regulations. Bannock and Peacock (1989) also argue that small firms merit support from government, not to give them unfavorable
advantages over other size of enterprises, but simply to offset the disadvantages which they experience by their small size and to offset the perverse effects of other government policies. Both researchers also argue that additions to the stock of small firms through new firm formation are the key to ensuring that competition exists in the market place.

The third issue relates to recognition that the indicator of demand in the market place is willingness to pay. However this is influenced by income distribution and the government intervention in a market system is justified on the grounds that it provided assistance and services to those without market power. So, the SMEs are in scale of the assistance.

The importance of government assistance to small business success is reported in a number of studies. Sarder, et al. (1997) conducted a study of 161 small enterprises in Bangladesh and found that firms receiving support services, such as marketing, management education and training, technical, extension and consultancy, information, and common facilities from the public or private agencies experienced a significant increase in sales, employment and productivity. 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 R. Abdul Kader, 2009 found that
government assistance was more critical for the success of small indigenous entrepreneurs than the non-indigenous ones.

On the contrary, some other studies found that government assistance was unimportant to small business success. Mambula (2004) in a case study on three small manufacturing firms in Nigeria found that those firms receiving credit and other forms of assistance did not perform better than those less privileged firms. Kirpalani and Macintosh (1980) studied 34 small and medium firms in the U.S and Canada and found that internal factors such as involvement of top management, R&D, technology, marketing mix and production function, and not government assistance that determined the firm success in international marketing. To them, government assistance is regarded as a hygiene factor in the sense that it is an enabling condition for small firms to compete in global markets, but insufficient for their success.

2.4.1 Factors measuring success of government assistance to small business
Determinants of business success are also diverse in nature. An extensive literature survey by Rogoff et al. (2004) found that internal and external factors are determinants of business success. The former refers to the characteristics of the owner or entrepreneur and business; whilst the later deals with factors beyond the control of the owner. Among other internal factors are size and years in business, the ability to attract outside capital investment, management, financing, planning, experience, and skill to implement any identified projects. The external or
environmental factors are sales tax rates, infrastructure expenditure, university research, corporate debt, credit market condition, business opportunity, availability of resources, economic conditions, competition, and government regulation. As surveyed by Wijewardena and Tibbits (1999), the success of small firms was attributed to entrepreneurial, managerial, or other personality attributes of owner-managers.

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.

2.5 Critical Appraisal of Porter’s Competitive Advantage of Nations
The main criticism against Porter’s model is that it was not subjected to any rigorous econometric testing. Instead, his work was highly qualitative, and based on stories and anecdotes, which
makes it difficult to assess the effects of the ‘national diamond’ on industry competitiveness (Dunning, 1991). Again, the model gives specific reasons for the success of individual industries but cannot be generalized for all industries in a country. Thus, Porter’s model can neither be employed to sufficiently explain a country’s economic structure nor can it predict which industries will be most successful in future. It has also been pointed out that the model “has been more practically driven than theoretically driven” (Foss, 1995).

Notwithstanding, the criticisms mentioned above, Porter’s work is still very relevant today. The “Competitive Advantage of Nations” has made two important contributions to economic literature. The first contribution is the fact that the model is consistent in explaining why the business environment in a country supports the growth of certain industries. For example, the model explains why the Italian environment supports the fashion and footwear industries, and why different national environments support the automobile and heavy machinery industries in Germany and the computer and electronics industries in Japan.

The second contribution of Porter’s work is that the model is able to analyze and predict what factors or attributes to change in order to improve the competitiveness of a particular industry and the nation as well. Hence, to overcome the shortfall of Porter’s single home-based diamond approach, that is the model inadequacy to incorporate the effect of multinational activities. This research will take a more holistic approach looking into international
business activities to identify the national competitive advantage of Thai traditional medicine. In addition, for practical analysis, the Chance variable, being unpredictable and uncontrollable, will undermine the consistency in determining national competitiveness. Hence, in this analysis on competitive advantages of Thai traditional medicine, the researcher will apply Porter’s Diamond Theory without the Chance variable. Thus, the revised diamond model comprises five determinants as illustrated in Chen and Tarn (1997).

2.6 Chance and Government
Other two external factors like chance and government also impact competitive advantage. Chance includes events that cannot be influenced by firms, for example, technological discontinuities, and surges of world or regional demand. Finally, the government can influence each of these determinants in a positive or negative way (Dgl & Holtbrgge, 2010). In this study, the researcher will apply Porter’s framework to the TTM and herbal product in Thailand and describes the diamond conditions in a narrative and qualitative way by interpreting form the interview script of the respondents.

2.7 Porter’s Diamond Theory and competitive advantage of Thailand Traditional Medicine and Herbal products

2.7.1 Factor conditions (Basic factors)
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). In all, 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.

2.7.2 Advanced factors

Research support & facilities
In an effort to maximize the basic factors, the Ministry of Public Health has taken a leading role in protecting and developing this valuable national resource. The Ministry funds research and development of medicinal uses of Thai botanicals through its Department of Medicine, the Institute of Thai Traditional Medicine, the Department for Development of Thai Traditional and Alternative Medicine, and the Thai Traditional Medicine Development Foundation.

2.7.3 Enhancing Human Capital
The Thai education system also produces the practitioners with Bachelor Degree in Thai traditional medicine. An increased interest in TTM and alternative medicine of Thai people prompted
many universities and academic institutions to offer Bachelor degree education in TTM.

2.7.4 Communications /infrastructure
Efficient infrastructure and communications are also vital advanced factors. Realizing Thailand’s strategic location, for over two decades, successive Thai governments have understood the importance of infrastructure in creating attractive investment conditions. Industrial estates and parks in all major regions are linked by road, rail and air. The system includes seven international airports, a rail system linking neighboring countries such as Malaysia and Singapore, river transport linking with Laos, Myanmar and Southern China and a series of eight large container ports linking with the rest of the world. This has great implication to the overall performance and competitiveness of Thai industries. (Thailand Competitiveness report, 2012)

2.8 Manufacturing competitiveness
The 2010 Global Manufacturing Competitiveness Index ranked Thailand 12th among the world top manufacturing countries with China and India topping the ranking. Thailand also has a positive upward forecast for the next five years. By 2016, Thailand will rank among the top 10 in terms of global manufacturing competitiveness (Deloitte Touche Tohmatsu, 2010). Thailand’s attractiveness as a production base for leading international companies is further enhanced by the host of Free Trade Agreements (FTA) or Early Harvest Schemes signed by Thailand that provide such advantages as duty-free imports of raw materials
and components, as well as duty free access to markets around the world. Thailand has already signed agreements with countries such as China, India, AFTA, Japan, New Zealand and Australia.

2.9 Demand Condition
Despite the advances of modern science, Thai Traditional Medicine has not lost its appeal to many in Thailand’s villages, towns and even its cosmopolitan cities. With increasing numbers of people in developed countries also searching for alternative and holistic approaches to health and well being, Thai Traditional Medicine is just beginning to earn an international reputation as well.

In a 1995 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 health conscious” his global trend (2005) towards the use of dietary supplements has led to the opening up and expansion of the botanical dietary supplement market in the West worth tens of billions of dollars. This provides a great opportunity for Thai
traditional medicine which in terms motivated the Thai government to fully supported research and development (R&D) of new herbal products by research institutes and the production of herbal products by industry in order to satisfy this global demand.

2.10 Related and Supporting Industries
2.10.1 Herbal cosmetics
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)

2.10.2 Medical Tourism
High competition in medical treatment services in Thailand has pushed many service providers in Thailand to provide the best medical services in the luxury environment. Thai hospitals and Clinics highly invested in facilities, people and high technology equipments raise Thailand to the leader in medical systems in the region. High quality of treatment by highly trained physicians at cheaper price brought many foreign patients from all over the
world to Thailand every year. Ministry of Public health, Thailand is currently promoting Thai medical services and Thai health products to reach high standard quality and turn Thailand into Medical hub of Asia. The ministry strategy is to assist technical information, corporate research, data publications and support public relations. Hospitals and Clinics in Thailand now have high potentiality to serve foreign patients. Memorandum of Understanding of Samitivej Hospital Group with Global Medical Tour (South Korea) and Piyavej Hospital Group with N S home shopping is a good sign of internationalization of Thai medical treatment. (Ministry of Public Health Thailand, 2008)

2.10.3 Biotechnology industry
To ensure the future development of the biotechnology industry, the National Biotechnology Policy Framework (NBPF) estimates future demand for an additional 500 biotech managers and 10,000 biotech university graduates. Twenty-four of Thailand’s universities have the combined annual capacity to supply 800-900 individuals with undergraduate biotechnology degrees, 300-400 Masters recipients and 100 PhDs. BIOTEC is also conducting a regional capacity building program to enhance the skill and availability of human resources for Thailand’s biotechnology industry(2009). With many skilled doctors and researchers working in this field, new uses and benefits of Thai botanicals are bound to be discovered. Thailand already offers a bounty of botanicals. Millions of people around the world are consuming them regularly in medicinal form or as supplements to improve their health.
2.10.4 Thailand Spa industry
Spas 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. (Kajonborrira, 2006)

2.11 Strategy, structure and rivalry in TTM and herbal product industry
In Thailand, the drug manufacturers are categorized into three groups. The first group is the multinational corporations which manufacture active ingredients and pharmaceutical formulation. The second group is the Thai-owned companies, which primarily focus on producing pharmaceutical formulation and, to a smaller extend manufacturing active ingredients. Third group belongs to the Government Pharmaceutical Organization (GPO), which primarily prepare pharmaceutical formulations for public medical establishment.

Similar to other countries in Asia, the pharmaceutical industry in Thailand is mostly formulating active ingredients and manufacturing generic products. The number of local manufacturing companies is limited, thus Thailand relies on imports. In 2010, Thailand has 947 herbal factories, but only 20
received the Good Manufacturing Practice (GMP) standard for pharmaceutical products.

In terms of distribution channels, there are mainly three types of licensed drug stores in Thailand namely; traditional medicine drug store, modern medicine drug store and modern medicine (pre-packed) drug store. However, to promote the use of traditional medicines, traditional medicines are allowed to be sold in the various types of drug stores. In addition, for traditional household remedies, they can be sold outside drugstores as the sellers need no license from FDA; therefore, this type of traditional remedies is available in many household supply stores throughout the countries. Nonetheless, there is a greater growing demand for traditional medicine. As of April 2007, there are 174 importers that import traditional medicines into Thailand, of which 153 (87.93%) located in Bangkok and 21 (12.07%) are in other provinces. The import value of traditional medicines in 2005 was estimated at 394.101 million Bahts. Export of traditional medicine, on the other hand, according to the information from FDA, during 2000-2002 the lowest export value of locally made traditional medicines was 30 million Bahts, and the highest export value was 39 million Bahts.

2.11 Government policy for TTM and herbal products
The Thai government recognizes the importance of herbal products to the health of the Thai people and to the economy owing to the increased demand from the domestic and global markets. A “Strategic Plan for the Development of the Herbal
Products Industry” for the years 2005-2009, was approved as the national plan on 29 June 2004. The Strategic Plan is divided into eight areas: namely, R&D, production of good quality raw materials, standards and quality control, improvement of manufacturing standards, marketing, amending the laws, knowledge management and collaborative mechanisms.

The Plan identifies government offices from different ministries and universities as responsible for the implementation of the plan and to achieve the goals of each area of development. Under the Plan, 11 medicinal plants and one herbal preparation have been chosen as the target of R&D for development into new herbal products. In addition, on 29 June 2004 the government implemented the “Strategic Plan to Develop Thailand as the Centre of Excellent Health Care of Asia” for the period 2004-2008. The plan aims to develop Thailand as “The Origin of Precious Herbs for Superior Health”, which promotes Thai herbal products among tourists by improving the quality of Thai herbal products in 10 major tourist destination provinces that have the potential to produce herbal dietary supplements, health foods, cosmetics, personal care products and spa products.

According to the policies of the government, TTM will still be a part of the national health policy as the government will “develop, transfer, and protect the wisdom of Thai traditional medicine, indigenous medicine, alternative medicine and medicinal plants”. DTAM, in collaboration with other related organizations, will therefore be responsible for the implementation of this policy by
strengthening the knowledge of TTM/IM (indigenous medicine)/CAM (complementary and alternative medicine) through R&D, transferring the selected knowledge of TTM/IM/CAM to the public and health-care personnel through training, demonstrations, exhibitions, printed matter and various other media channels and developing herbal products and TTM/IM/CAM services to meet international standards.

Furthermore, the 9th National Economic and Social Development Plan (2002-2006) have been stated for specific plan for TMM and herbal products, which are categorized into four groups. The first group provides practical project to support the business owner form large corporations to small enterprises. The projects influence all business owners to produce international standard products such as GMP, HCCAP, HALAL and etc. in order to have more advantage over competitors in a world market. The second group focuses on research and development. The setting up of laboratory in many government units, the establishment of multidisciplinary research for Thai medical and herbal products and the initiation of research project for substitute of import medicine are some of the task for the second group. The third group emphasizes on financial and marketing support to make the TTM and herbal products more marketable in both domestic and foreign market. The forth group looks into the policy of regulations and or deregulate of medical and herbal products. In setting up some regulations, all enterprise especially the SMEs are able to achieve the global product standards in a world market.
Chapter 3
Research Methodology

3.1 Research method
Qualitative approaches were used in this research. In-depth interviews with industry experts were 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 (Ngamkroeckjot, 2000). Interview questionnaire were written in Thai and translated back into English by the researcher. Triangulation, and member checking method were used to test the reliability of questionnaire.

In order to specific the relevancy of variables, a purposive sampling focusing on business owners in the industry of TTM and Herbal products will be used. 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.

3.2 Data analysis
Content analysis from interviewing were deployed to analyze the data. The interview scrip and secondary data are analyzed inductively. The questions are divided into three parts. Part one
encloses the company’s SWOT in sequence. Part two covers the four components of Porter’s model. Part three included the government policies that are relevant to their industries such as the setting practical projects for TTM and herbal products, research and development, financial and marketing, and regulate/deregulate of government policy to simplify the product standard process. The five-point Likert scale will be used to measure the awareness of respondents for government policy relevancy. Vagias & Wade (2006) comments that whether government policies are relevant to support this industry or not, the answer will be rated form most relevant (5) to least relevant (1). The score range from 1.00 – 5.00, which 1.00 - 2.33 equal to least relevant, 2.34 - 3.67 equal to Medium relevant and 3.68 - 5.00 equal to most relevant.

3.3 Data collection
Fourteen respondents were in-depth interviewed for this research. Most of respondents are the owner of business and middle management- executive levels, 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.
Chapter 4
Research result and Analysis

4.1 Research result
Fourteen companies have been selected for the in-depth interviewed and the results are as follows:

1. THANN-Oryz Co., Ltd
Established in 2002, Thann is one of the most recognized Thai traditional herbal product brand names both locally and internationally. It specialized in the manufacture of natural skincare products. THANN is strong distinguished by its innovative style of management, focus on natural ingredient and contemporary design. One of its key products is the extraction of Oryzanol oil (extracted rice bran oil). Started as an OEM for many natural products brands, THANN now has 12 local branches and 15 overseas branches in countries such as Australia, Canada, China, Finland, Guam, Hong Kong, India, Japan, Mexico, Mongolia, Russia, Singapore, Sweden, Taiwan and Vietnam. Thann major strength lays in its R&D efforts. THANN is the first brand to use Shiso extract as a key ingredient for skincare products after spending over thousand hours on research. THANN’s scientifically tested products benchmarked its company’s quality and standards at international level. This product management strategy has been acknowledged based on the numerous awards THANN received. THANN was awarded the prestigious 2005 Thailand Prime Minister’s Export Award, the
2005 G-Mark Award from the Japan Industrial Design Promotion Organization, the 2006 Design for Asia Grand Award from the Hong Kong Design Centre and Best of the Best Thai Star Packaging Awards 2009 from the Department of Industrial Promotion, Ministry of Industry and Thai Packaging Association. THANN further enhanced its global recognition with THANN Shiso Facial Serum been the winner in "Thai Prestige" category at the Marie Claire Beauty Award 2012.

THANN’s ceo added that THANN is able to maintain intimate working relationships with all of its distributors ranging from retail store design, customized marketing plan and strategy to operation and local execution, thus resulting in unrivalled quality worldwide distribution. More importantly, THANN takes a holistic approach to market expansion. It not only diversifies but intensifies its market and distribution channels. In recent years, THANN has made its retail presence at in-flight duty free in airlines industry, hospitality segment, 5-star resorts & hotels and airport lounge.

Even though THANN does not face the problem of raw material shortage, it does encounter the threats of raising cost of raw materials. It also faces higher competition in both local and overseas. Its main competitors are L’OCCITANE en Provence and Origins Natural Resources, Inc. THANN also realized that its brand and range of products have been perceived as local and would prefer its brand to be seen as among the international brand.
2. Nawua Traditional Medicine shop

Nawua Traditional Medicine shop is long established and its history can be dated back to King Rama V era. But in 2007 it faced closure threat as the Pirawatteuk family faced increasing difficulties due to the imposition of strict controls on businesses operating in the area of alternative medicine, as well as encountering difficulties when it came to sourcing fresh ingredients. This resulted in gradual decrease in the number of customers visiting the store.

Despite the unfavorable market conditions, the family decided to rejuvenate the century-old brand and business operation. Nawua engaged in product quality improvement strategies to strengthen brand recognition. For quality assurance, all the formulas sold at the store meet the Good Manufacturing Practice (GMP) standard and are certified by Thailand's Food and Drug Administration (FDA). This enables Nawua to expand its target market to hospitals. To better reach the consumers, Nawua engages in modern packaging that reflects and caters to the lifestyle needs of the market. To entrench its market position, the Nawua Traditional Medicine Store has ventured into e-commerce as a new distribution channel. Nonetheless, in its effort to business modernization, Nawua faces the problem of raising cost for raw materials as well as difficulties in having the raw materials. Another weakness of Nawua is that its market is limited to the domestic market. It has yet expanded international.
3. **Hatakabb Co., Ltd**

Hatakabb Co., Ltd is one of the longest established Thai traditional medicine companies with its first factory built in 1980. The business operation becomes more professional with the company’s strong commitment to improve the efficiency in every single process notably production, quality control and product development to ensure the high quality with the reasonable price, value for money product that exceed its customer needs. It quality assurance came with the company’s achieving GMP (Good Manufacturing Practice) certified by the FDA department in 2005. Hatakabb strives to improve its benchmark performance with continuous manufacturing process improvement particularly on hygiene and production in order to adhere to international requirements. Every production step is controlled to produce products that are of highest quality and safe to consume.

In terms of quality inspection, Hatakabb’s Quality Control (QC) department is equipped with modern equipment to assist in both physical property and pharmacokinetic inspections. Quality Control will conduct an inspection and analysis on the raw materials, component medicine and finished drug packaging materials as well as submitting a summary of results to Quality Assurance (QA) department who, in turn, will incubate, allow or return according to the results of the analysis. Hatakabb products have gained international acceptance from Hong Kong, Macau and China. Further distribution is planned for the rest of Asia namely Taiwan, Singapore, Korea and Vietnam.
Hatakabb’s vision statement also reflects the strong commitment of the company in serving its market. Its vision is to continue to improve the quality and increase the variety of Hatakabb products to provide choices for its consumer. Trading with generosity and honesty is the guiding principle. To achieve the vision, Hatakabb’s mission is directed to create awareness and strengthen its brand. Direct and indirect public relations are employed to reach all groups of consumers. Produce the flavor and new packaging. Moreover, further distribution into Modern Trade and ordinary shops channel as well as internationally is in business plan. Like others Thai traditional medicine producers, Hatakabb also use the Facebook as a new marketing channel. This has open new business opportunity and market segment for Hatakabb’s products.

One of the weaknesses perceived by the company is that it has limited control over its foreign market as these markets are taken care by the importers. The availability of raw materials is also a cause of concern for the company. According to the company, while only 5% of the raw materials are locally sources, 90% of raw materials are imported from China. It is therefore difficult to manage its supply chain as efficient as it would prefer. Hatakabb also cited different consumer consumption behavior as a barrier to their export effort. It also claims limited support from the government as a setback to its operation.
4. **Baan Thai Herb**

Started as an OTOP (One tambon One Product) project and winning the best product of the year with its Honey Glycerin Soap, Baan Thai Herb was established in 2006. Baan Thai Herb products ranging from skin care products made from local rice, honey and coconut, to the production of Song Yoi - an organic brown Rice that has been awarded the geographical indication (GI) recognition. Baan Thai Herbal products have found niche markets in five-star hotel such as Hilton and Club Mad Hotel at Phuket Island. In addition, Baan Thai herbal products have also been awarded Good Manufacturing Practice (GMP) and received license from the Food and Drug Administration of Thailand. These certifications signify the organic standards of the brand. The company has received much assistance from governmental research centers to image its production technique.

Baan Thai Herb is able to produce sufficiently for its export market. Most of its raw materials can be sourced locally. The bulk of the raw materials come from the province of Phichit and Rayong. It has exported its products to the U.S.A, Italy, Sweden, France and Mexico. The company is confident that it can penetrate the Asian market when AEC comes into force. The only apprehension it has is the European markets whereby the regulations are still relatively stringent. Words-of-mouth is a strong marketing communication tool for the company in all its target markets. Baan Thai also emphasized on staff training and development. Despite the growth potential of the company, Baan Thai is comfortable with a medium sized management team.
The threat Baan Thai faces comes from Germany where the similar product has been registered as their intellectual property. The company reckoned that the Thai government should create greater awareness and provide knowledge to Thai consumers on the benefits of its traditional herbal products. One of the biggest threats highlighted by the company was the slowing down of the global economy as well as the political problem in Thailand. Another weakness mentioned was its distribution channel. To date, the company focuses mainly on exhibition events to publicize its products both locally and internationally.

5. **Harnn Natural Home Spa**

Harnn Natural Home Spa is a Thai spa brand, founded in 1999 and now available in over 25 countries including Japan, U.S.A, Taiwan, Australia, Canada, India and France. Harnn produces body lotion, shampoo and essential oil extracts. The creative design along with unique dermatological properties from grains, spices, herbs and natural plant essential oils have won HARNN a patent for natural Rice Bran Oil soap formulation along with numerous international awards for design excellence.

Harnn’s raw materials come from Thailand and China. High cost of raw materials is one of the main concerns of the company. Like the other Thai traditional herbal producers, Harnn is also has to face the challenge of product quality and standards. According to the brand manager, Mr. Krit Kawpracha, the quality control is made difficult due to the different lot of raw material supply. Consistency in the supply chain is also a major factor the
company takes into serious consideration. The difficulty in sourcing raw material is a hindrance to the business. Natural disaster is an element that affects the availability of supplies. In terms of market competition, Harnn also faces strong competition in the local market. One of its direct competitors is THANN-Oryz Co., Ltd. To differentiate itself from competitors, it positioned itself as oriental and emphasized on its 100% extraction know how. As for its export market, Harnn focuses on three major markets, namely Japan, U.S.A and Taiwan. The company perceived little assistance from the government.

6. Chao Phraya Aphai Phubet Hospital
Chao Phraya Aphai Phubet Hospital began its studies on herbs since 1983 by establishing the Herbs Information Center with a focus on teaching, collecting and disseminating knowledge on herbs. In 1986, the hospital began producing medicine from herbs. Since 1999, it has been promoting herbal juice for Thais to drink such as the oyster plant juice, alovera juice, tamarind juice, and noni juice. The production is under quality control, beginning from selecting material which meets the organic agriculture standard. The product is also clinically tested. The personnel have been trained by the Department of Science.

One of Chao Phraya Aphai Phubet foundation strength is the medical and research support given by the Chao Phraya Aphai Phubet Hospital. The Ministry of Health has also issued the license for the production of traditional herbal products.
Furthermore, Chao Phraya Aphai Phubet was awarded the Good Manufacturing Practice certification.

At the initial stage, the raw materials were brought from villages near the foundation. It was later discovered that the local growers used chemicals that were harmful. To overcome the quality problem of the raw materials, Chao Phraya Aphai Phubet introduced the concept of organic farming to the villages in Chiang Mai, Chiang Rai, Chanthaburi, Mahasarakham and other provinces in E-San. There were training provided to the growers. To ensure high standard and quality of the raw materials, the foundation engaged in contract farming involving more than 100 rai of plantation areas. This allows constant supply of raw materials as well.

One of its strength is the ability to differentiate its products using nanotechnology and organic materials. Aside from participating at various exhibitions, Chao Phraya Aphai Phubet appointed distributors to expand its market throughout Thailand. It now has two appointed distributors in Bangkok and more than 10 in other provinces. As for its international market, Chao Phraya Aphai Phubet has exported its traditional herbal products to Japan. It has not entered the European market due to the strict laws and regulations. Despite its interest to expand trade, the domestic market remains most profitable and foresees greater profit growth. The trade volume in Thailand is 250 million baht compared to 1 million export value from the Japanese market.
One of the biggest challenges of Chao Phraya Aphai Phubet is that it found it difficult to compete in the herbal beauty products. As products are made from organic materials, it is hard to maintain a consistency in color, flavor and texture of the product. Adding to this is that many of the raw materials come from the forest and as the problem of deforestation intensify, the supply become a threat. Chao Phraya Aphai Phubet also realized that there is still a lacking in the understanding of Thai traditional herbal products among overseas buyers. Most buyers become aware of Chao Phraya Aphai Phubet products out of words-of-mouth.

7. **New concept Co., Ltd.**
New Concept Product Co. is one of the top leader and expert manufacturer of herbal health products in Thailand, under their brand name Fitne', Hotta, Ya Satree Ladina and Tumtip. The company attained ISO 9002 in the year 2000. In 2001 it received the certification of HACCP and follow by GMP in 2002. New concept Co., Ltd has 2 factories in Thailand. Its products have been exported to countries such as Europe, Japan, Singapore, Malaysia, and South Korea.

Unlike the other companies, New Concept Co., Ltd does not have many problems with the supply of raw materials as they are easily available in the local market. Some supplies of raw materials are based on seasonal factors but on a whole, with good management in its supply chain, the company is able to meet demand on a year round basis. Brands under the company have been well accepted in the general market and have been exported to Europe, Slovenia
and Kuwait. New Concept Co., Ltd depends on its distributors in each of the sales territory. Good relationship with sale agent in oversea is also the important part of the company strategy in improving sales in its overseas markets.

It has been noted that New Concept Product Co., Ltd, used the most advanced technology to produce the finest health products for better health. Through its Research and Development and Quality Control Teams, customers are ensured of satisfaction through the development of innovative new products to maintain and improve physical and mental fitness. The company has continuously developed methods for monitoring and enhancing customer.

New Concept Product understands that its market is relatively competitive. Although it has received little assistance from the Thai government, it preferred the government to provide support for farmers to plant the more herbs.

8. Baan Idin
Baan Idin Co., Ltd. is a rice bran oil producer, located in Saima district Nonthaburi province. It has a long established which started from rice mill business. The family started producing rice bran oil from the by-product of the rice mill business.

Currently, the company has many varieties of the products such as rice bran oil, liquid and bar soap form rice bran oil, facial scrub, essential oil, and etc. Health shops such as Lemon Farm, is one its
main distribution. Baan Idin also engages in E-commerce with its focus on social networking via Facebook page.

Apart from domestic customers, Baan Idin’s products have been also exported to many countries such as France, Singapore, and Kuwait. Even though Bann Idin is an SME company, it has high potential in traditional herbal market of the world as it concentrates on research and development. The company works towards its vision in “lifting up the company’s products to the world market”.

9. Grand Mum
The company started with the cultivation of Aloe Vela plant, in 2000. During the price crisis of Aloe vela, manufacturers in Prajuab Kirikhan did not purchase the raw material from the farmers. As a result, the Aloe Vela farmer started to form the company by themselves with the support from the local government. Until now the government and non-profit organization still support the company in terms of research and development.

Currently, Grand Mum has a variety of products available in the market. Some of these products include cold press coconut oil, Aloe Vela juice, Aloe Vela oil, Herbal ball, Herbal soap and etc.

The products of Grand Mum are exported to Asian countries as well as Middle East countries. The company purchases its raw materials from the local farmers and the production process is
certified by GMP (Good Manufacturing Product), which is guaranteed the quality of the product as well as the environmental protection.

Company’s strengths lays on the fact that it’s manufacturing process are GMP certified. This in term makes it easier for Grand Mum to export its products to other countries easily. Furthermore, the products are fully organic and contain no chemical. There are many opportunities for Grand Mum as its products are readily accepted by all type of customers. The Weaknesses of the company is the low production capacity as Grand Mum is still a very small enterprise. Threats or barrier of company come from the cheaper import of herbal products from China and India. The two countries are potential competitors.

Grand Mum perceived the financial support from the government as necessary. It also seeks the assistance of the government in terms of research and development.

10 Numbud
Numbud is a small enterprise originated from a family business. As members of the family have allergy over chemical products, Numbud started its non-chemical soap, shampoo and other cosmetic production. It was first used by the family and then given away to close friends and relative. Numbud received good feedbacks from the users. With that, they began to produce for sales. The company concentrates on trade fair booth and wholesales.
The products are now exported to North America, Europe and Asia. The strength of the company lays on its genuine high quality raw material and human resources. High cost of raw material, narrow distribution channel and capital constraint are some of its weaknesses. The “Back to the nature” trend provides good opportunity for Numbud. Availability of raw material in the domestic market, the opening of AEC and the ease to market expansion provide sound opportunities for the company. Threats for Numbud come from the high capital intensive of the herbal industry as well as the high competition from large companies. High risk taking from the economic turn down is also a threat.

11. Bangkok Aloe
The company has its own Aloe vela plantation in Khampangsean, Nakorn Prathom. It started producing Aloe vela juice in a form of can and bottle. The products are 80 percent export to international market such as Hong Kong, Taiwan, Japan, Singapore and UK.

Bangkok Aloe received several certifications such as FDA, HALAL, GMP, and HACCP. The high quality products of Bangkok Aloe are therefore a great strength of the company. The small capacity compare to other exporters in the same industry is a weakness of the company. The lack in human resources and shortage of raw material in some seasons are other weaknesses. Weak competition among the Aloe vela producers and the support from government particularly in terms of tariff are the opportunities Bangkok Aloe faces in this industry. Furthermore, Aloe vela being a well-known product in the market and the trend
for herbal products in the market also create opportunities for the company. Threats include the fluctuation of exchange rate, future potential competitors such as Vietnam in Aloe vela market and the unstable supply of Aloe vela due to seasonal harvest.

12. Aloe Herb Pimple
Aloe Vela herb pimple is a small enterprise located in SunSai, ChiangMai province. It has its own distribution center in Bangkok. The business started with the opening of a small shop selling the Aloe vela products. In the past, the shop owner had skin problem particularly pimple. She started using Aloe Vela produced by the aloe vela farmer in the traditional method which proved effective. This motivated her to start a business to distribute the Aloe Vela products. Currently, there are about eight Aloe Vela extracted products in her shop.

One of the weaknesses of Aloe Herb Pimple is that when comparing to the chemical cosmetic, Aloe Herb Pimple products may release skin problem but at a much slower pace than chemical one. Its 100% organic products and the competitive pricing are its major strength. The company is also recognized by FDA Thailand.

E-commerce is one of the most effective for distribution channel. Aloe Herb Pimple brand is the number one listed in Google search. There is no problem about shortage of raw material in this industry. Aloe Herb Pimple has yet received any help or
assistance from the government. The current preference for Green product generates greater business opportunities.

13. Nutrarich or Siam Natural product
Nutrarich or Siam Natural product was established in 2005. It is a Thai cosmetic company with its origin from “OTOP” (One Tambol one Product - government project). The owner of the company graduated from Chulalongkorn University with a food science degree. He has worked for CP Corporation in product development. He also held a master degree in cosmetic science from Mae Fah Luang University.

The company started producing the breast gel from Thai herb “Kwoa krua”. It joined the “Thailand Intellectual property competition” and won 4 prizes in the competition. It was a good starting point for the subsequent years; Nutrarich won 11 prizes for 4 consecutive years. The Breast gel was the first product of the company. It conducted joint research with a Japanese corporation. After that the company started producing the soap that make from raw rice bran oil. This product received the “Thailand intellectual property competition award” and followed by Jamaican Sorel, (Roselle) whitening cream. There are now about 50 herbal cosmetic product of the company.

The company’s products are sold in USA, Dubai, Japan as well as Korea. Being certified by Thailand FDA, receiving the award from Thailand intellectual property competition, quality control by the company are some of the strength of the company. Nutrarich’s
narrow distribution channel is still a barrier or weakness of the company. The greatest threat comes from intense foreign competition.

14. Natural by Nattaya
The production plant of Natural by Nattaya is located at Nakorn Prathom. It has its show-room at Jatujak (JJ) mall Bangkok. It was established in 2010 producing herbal soap used in spa business. Natural by Nattaya has a variety of herbal and fruity soaps make from Aloe vela, carrot, pepper mint, coconut, papaya, tomato, Kwoa krua, sesame, tamarind and etc. Apart from producing soap, it also has shampoo, herbal ball, essence oil, bath gel, foot lotion and etc. Some of its products are exported to foreign market by middle man. Currently, Natural by Nattaya products has been exported to Singapore, Dubai, Laos, and India.

The availability of fresh, high quality raw material in domestic area is an important strength of the company. Natural by Nattaya stores are well located with modern display. It enjoys large group of regular customers. The brand also has a good image at of home and is known for its environmentally friendly products. The small capacity of production process is one of its weaknesses. It also faces the problem of selling online as potential customers are unsure of the quality of the product. Large market share compare to the competitors in the same size and similar products creates opportunities for Natural by Nattaya. The company also benefitted from the environmental friendly product trend. Counterfeit,
intense competition, political instability and economic turmoil are major problems and threats of Natural by Nattaya.

4.2 SWOT Analysis of TTM and Herbal products
Due to the importance of the Thai traditional medical industry, the researcher used SWOT analysis (Kotler, 1990), which contains the analysis of the Strengths, Weaknesses, Opportunities and the Threats of the Thai traditional medical industry.

The SWOT analysis starts with identifying the strength and weaknesses of the internal environments. Strengths include the resources (also gained skills and favorable positions) in which the industry has an advantage. On the other hand, weaknesses are resources where the industry has disadvantages.

Analyzing the external environment gives a picture of the opportunities and threats facing the sector. Opportunities are those external and unchangeable facts which provide a favorable position for development. It can exploit the opportunities for the industry in a competitive situation. Threats are those external factors, which can influence the sector unfavorably and can hinder development.

4.2.1 Strength
Based on the detailed SWOT analysis of the six major Thai traditional medical and herbal producers, it is evident that the strength of the industry lays mainly on the industry ability in differentiating their products through product quality
improvement as well as quality assurance. Adding to these factors is that the industry is strongly supported by research and development within their facilities or with government assistance. The know-how to the extraction process is crucial and an important strength towards the sustainability of the industry to lead in terms of innovation and production efficiency. Furthermore, the rich accumulated pool of knowledge on traditional medicine and herbs are inevitable elements strengthening the leadership position of these companies in both the domestic and international markets.

It has been noted that there has been efforts placed by the industry to develop its human resources. Staff training has been viewed as significant and it has been mentioned in almost all of these companies as element to improve management performance.

Many of these companies have long and sound established image and reputation thus adding to the trust consumers have on them. The trust and confidence in the brand and products have been enhanced with the government assistance via the accreditation by the Food and Drug Administration as well as the award of Good Manufacturing Practice certification. These ultimately drive the industry as a whole to set high benchmarks in their production process.

The Thai preferences in using traditional medicine has also boost the strength of the industry as the local demand generates greater sales and profits for the industry. Profit growth is expected with
the increasing awareness among the international consumers. The success of related industry also contributed to the strength of the Thai traditional medicine and herbal industry. The spa, beauty and food industry have promoted Thai traditional herbs to a great extent.

4.2.2 Weaknesses
The availability and high cost of raw materials are factors most affecting the industry. The cause of concern has been raised by almost all of the companies interviewed. One of the obvious weaknesses is the inability to neither influence nor control the prices of raw material needed by the industry. The availability of raw materials also added to the problem as shortages might be due to increasing demand, poor harvest which could result from natural disasters nor poor harvest, seasonal factor and scarcity of the raw materials. Deforestation is a growing problem as some of the raw materials could only be found in the forest reserve. The lack of readily available raw resources might increase in the cost price and drive production cost higher.

Even though some of the companies in the Thai traditional medicine and herbs have experiences successes in opening overseas branches, it has been observed that some of the companies are still dependent on their importers in managing their products overseas. Thus the high dependency on overseas distributors resulted in limited control over their international marketing strategies.
There is also a lack of strong marketing promotional activities among the smaller companies. Many of these smaller firms focus mainly on overseas or local exhibition events to support their marketing efforts.

Unlike Thai cosmetic products or organic produces, Thai traditional medicine expand internationally much slower. It managed to enter only certain countries. The European market has proven difficult for these companies due to strict and stringent laws and regulations with regards to drugs. As such, Thai traditional medicines are available in limited international markets.

4.2.3 Opportunity
The Asean Economic integration has provided a potential regional market for Thai traditional medicines and herbal products. The close proximity among these nations motivated and encourage Thai companies to expand regionally. Adding to this, the Thai government OTOP initiatives have also generated substantial interest in not just the local but also foreign markets. As the international market become aware of the quality and effectiveness of Thai traditional herbals and medicine, it created business opportunities for expansion among the companies in the industry. It is apparent that many of these companies are confident to enter the Asean markets.

The proactive innovative improvement in production methods among the companies in the industry prompted highly effect and
efficiency in the production process. These in many ways would motivate the industry to expand its market to traditionally untouched market due to high strict regulations with regards to drug production and products.

The growth in the industry has encouraged many farmers to engage in herbal farming as it has become profitable in the cultivation of herbal crops. This allows farmers to have plant more alternative crops to supplement income. Some of the companies have proven success in managing the quality of their raw material with local contract cultivation of herbal crops.

4.2.4 Threats
The weakening global economy has become a threat to the growth of the Thai traditional medicine industry. The market condition in Thailand is remained weak with the uncertainty caused by the political instability within the country. This factor has been raised by many of the companies in the industry. The extensity of the distribution channels is still an area of concern for these producers. The industry realized that the dependency on overseas exporter in the marketing strategy of the products. The shortage of raw material is also a crucial problem encountered by many in the industry.

4.3 Analysis Porter’s Model of TTM and Herbal products
Michael Porter (1998) states, “Every industry has an underlying structure or a set of fundamental economic and technical characteristics, which give rise to these competitive forces”. These
forces are industry competition/rivalry, threat of new entrants, and threat of substitute products, bargaining power of suppliers and bargaining power of buyers. These five forces shape and influence the strategies of companies.

The Porter Five Forces analysis presents a clear view of the external conditions and the contending forces within a specific business industry. It also allows strategists to create a strategy in order to gain competitive advantage or sustain the same for a longer period of time. Porter added that, “Knowledge of these underlying sources of competitive pressure provides the groundwork for a strategic agenda or action” (Porter 1998). Hence it is important to make this analysis in order to have an overview of the industry.

4.3.1 Factor Conditions
a) Access to raw material
Based on the in-depth interview, many of the Thai traditional medicine manufacturers indicated that the industry has benefitted from favorable factor conditions. Access to raw materials is a key indicator to sufficient production as mentioned by THANN, Hatakabb, Baan Thai Herb, Chao Phraya Aphai Phubet, Aloe vela Pimple, that they did not face problems in terms of access to raw materials. Among these manufacturers, they have also come out with ways to ensure the quality and standard of the raw material supplied to them. A good example is Chao Phraya Aphai Puget’s initiative in introducing the concept of contract organic farming to the villages.
b) Human resources
When asked if there have been any significant changes in organization in recent years, almost all indicated significant organizational changes especially in the field of human resources. The changes and improvement met the expectation of these organizations. Thann particularly cited that the company sent its staff to overseas branches for trainings. Chao Phraya Aphai Phubet foundation, on the other hand, sought the assistance of its hospital to educate the foundation staff as a mean of sharing knowledge and know-how to the management and production of traditional medicines.

Nonetheless, when they were asked what the future challenges they would anticipate in order to move to the next level of competitiveness, many cited the need to enhance the managerial and administrative skills. These responses coincided with the urgency to cater for near future expansion plans that these companies have engineered for.

c) Specialized Factors
The global market for traditional medicine has been perceived as highly competitive among these companies. Nonetheless, these producers felt that they were able to distinguish themselves and differentiate their products among global competitors. The key factor to this perception could be related to the fact that the industry as a whole has placed much emphasis on research and development. THANN was the first
brand to use Shiso extract as a key ingredient for skincare products after spending time and funds on research.

Chao Phraya Aphai Phubet foundation also resorted to their specialty in herbal plantation to introduce green cultivation to its contracted farmers. These specialized factors improved work processes.

The attainment of licenses from FDA by the Ministry of Health is considered significant as it elevate the market positioning of these companies not just locally but also in the global market. It enables the creation of a professional medical image of the organization.

d) Technology
One of the distinctive strength of the Thai traditional medicine and herbs is the emphasis these firms placed on the implementation of new technology to improve productivity and quality. Many of these firms received GMP awards which are reflective of the commitment of the companies to excel through innovation and use of technology for product differentiation. THANN and Harnn both take pride in their ability to differentiate themselves as 100% organic. The level of technology used in the extraction of oil from leaves and herbs has been well accepted and patronized by both local and overseas buyers.

e) Managerial and Administrative Factors
THANN-Oryz Co., Ltd, Nawua Traditional Medicine shop, Hatakabb Co., Ltd, Baan Thai Herb, Harnn Natural Home Spa except Chao Phraya Aphi Phubet Hospital all have rooted from family business. However, through the years of experience, these family businesses have groomed and become more structured. The hierarchical nature might still be presence in some of these businesses but these companies are becoming more organized under corporate, business and functional units.

4.3.2 Demand Conditions

a) Size of Home Market

The demand conditions in this study consisted of size of home market and quality of demand. The study found that the majority of demand derived from the domestic market and regulations for exporting medicine were the main barriers to enter some markets. However, the countries that import Thai traditional medicine and herbal products are mainly in Asia and some export to EU as well as in the USA.

When asked what kind of new customers the company plan to have, almost all of the companies interviewed opined that they planned to have more customers both from the domestic as well as foreign markets. And based on the interviews, these companies cited that they were in a competitive advantage position due to the size of the home market. This is understandable as the Thai people have a long history of using herbs as medicines. The use of herbs is not only associated with
healthcare, but it also has cultural values because it represents wisdom that has been inherited from earlier generations.

Take Nawua Traditional Medicine shop for an example; to cater to the current market demand, the company started its modernization program with the rejuvenation of the century-old brand and business operation. The high quality benchmarking strategy of attaining Good Manufacturing Practice (GMP) standard and FDA certification enabled Nawua to expand and better cater to the local market. Like Chao Phraya Aphai Phubet, Nawua have now expanded its target market so as to serve larger market segments.

When asked how confident were them in different markets, the responses were that most confident in the Thai market, most confident to confident in global market and most confident in the Asean market. The findings are interesting as it reflected the level and degree of readiness of the Thai traditional medicine and herbal industry. This is significant to the positioning of the industry as a whole in the world market. Thai medical and herbal producers are confident and see themselves in competitive positions as the hub of traditional medicines and herbs in Asia.

Take Baan Thai Herb for an example. The company was confident to enter the Asian market when AEC comes into force but they were apprehensive of the European markets as regulations in Europe were stringent. Thailand therefore has the
opportunity to become Asia's herbal product manufacturing hub and could also take on an important role as the world's top ranking herbal product exporter.

b) Quality of demand
In all the interviews, these companies had made effort in improving quality performance in their business operations. Efforts were been shown at all levels. At Chao Phraya Aphai Phubet, the production process went under strict quality control. All selected materials must meet the organic agriculture standard and end products have to be clinically tested. HARNN, on the other hand, patented its natural Rice Bran Oil soap formulation as a strategy to symbolize its product as of high quality which added values to its product and brand. Like others, Hatakabb strived to improve its benchmark performance with continuous manufacturing process improvement particularly on hygiene and production in order to adhere to international requirements.

The emphasis on quality illustrates the commitment of the Thai traditional medicine and herbal producers to gain competitive advantage in the international markets.

4.3.3 Firm Strategy, Structure and Rivalry
a) Firm Strategy
From the interviews, it indicated tremendous efforts by each of The Thai traditional medicine and herbs companies to adapt and adopt creative management strategy in both
supply chain and customer relations. THANN is able to maintain intimate working relationships with all of its distributors ranging from retail store design, customized marketing plan and strategy to operation and local execution, thus resulting in unrivalled quality worldwide distribution.

Hatakabb business strategy was effective in the sense that it aimed to also to create awareness and strengthen its brand through various methods such as direct and indirect public relations to reach all groups of consumer, producing better flavor and new packaging.

b) Structure and Rivalry
All companies interviewed were aware of the highly competitive nature of both the domestic and international market. Baan Thai Herbs highlighted the problem of intellectual property as a weakness in the industry to protect the Thai wisdom from wealth-rich overseas herbal producers. Harnn and Thann also cited the problem of intense domestic competition.

THANN also brought the issue of intense competition in the local market. Its main competitors are L'OCCITANE en Provence and Origins Natural Resources, Inc. THANN realized that its brand and range of products have been perceived as local and would prefer its brand to be seen as among the international brand.
c) Investment climate
The investment climate of the industry has been perceived as positive by all the company that were interviewed. Even the small firms like Nawua Traditional Medicine shop has reimaged, rejuvenate and modernized its brand, products packaging and business operation respectively. Baan Thai Herb, a SME, has exported its products to the U.S.A, Italy, Sweden, France and Mexico. The larger companies such as Harnn and THANN all have invested and opened flag shops at important cities in the world. Hatakabb has plan drawn out to enter the Asia market namely Taiwan, Singapore, Korea and Vietnam.

The investment climate is not just in overseas market. Chao Phraya Aphai Phubet has been actively working to consolidate its domestic market with the appointment of two distributors in Bangkok and 10 more in the other provinces. The extensive distribution channel signifies raising demand as well as profitability of the trade.

d) Capacity for innovation
The Thai traditional medicine and herbal producers have proven innovative with the production of many new products which are recognized as quality products in international markets. Take for instance Baan Thai Herbs’ Song Yoi organic brown rice that has been awarded the geographical indication (GI) recognition. Not to mention,
HARNN patenting its natural Rice Bran Oil soap formulation.

The Thai traditional medicine and herbs industry is not just innovative in production but also in its supply chain management. THANN has made its retail presence at inflight duty free in airlines industry, hospitality segment, 5-star resorts & hotels and airport lounge. This is seen as significant as Thai traditional medical and herbs have deviated from traditional retail channel and enter modern trade distribution channels. The use of multimedia in sales and promotions too depicted creative and effective business management.

4.3.4 Related and Supporting Industries

a) Related industries

For the case of Chao Phraya Aphai Phubet, it received much assistance from the Department of Science not just in clinical testing of the product but also training its personnel in the various aspects of promoting and production of the healthy drinks. Baan Thai Herbs also received much assistance from governmental research centers to image its production technique.

b) Role and supporting Industries

The interviews also revealed 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 in both the domestic and international market. Baan Thai Herb has found niche markets in five-star hotel such as Hilton and Club Mad Hotel at Phuket Island for its range of products.

As for Chao Phraya Aphai Phubet foundation, it has supplied its medicine to the Chao Phraya Aphai Phubet Hospital as good substitute to modern medicines.

4.4 Relevancy of Government Policy

4.4.1 Role of Government
The relevant government policies are classified into 4 parts. Namely Support for international standard, Research and development, Marketing and financial support, and Regulation/ deregulation. There are 14 respondents in this study but only 13 responded with one missing the interview.

There are four main government policies that are most relevant to TTM and herbal products. First is the Government support for international standard. Second is on Research and Development. Third regarding Marketing and Financial support and forth regards Regulation/ Deregulation (Table 2).
Table 2: Relevancy of Government Policy

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Policy 1: support for international standard  
Policy 2: Research and Development  
Policy 3: Marketing and Financial support  
Policy 4: Regulation and Deregulation  

1 = Least relevant  
2 = Somewhat irrelevant  
3 = Moderate
4 = Somewhat relevant  
5 = Most relevant

The score are weight into 1.00 - 2.33 equal to least relevant, 2.34 - 3.67 equal to Medium relevant and 3.68 - 5.00 equal to most relevant.

The result shows that the large companies tended to mentioned that the forth policy (Regulation/ Deregulation) is most relevant to this industry as they facilitated the companies to compete to the world market. On the other hand, small business such as spa, OTOP enterprise stated that marketing and financial support is policy tend to be relevant to this industry.

According to the interviews, there were mixed responses to the relevancy of government policy. OTOP herb producers and small business can take advantages for government policy, particularly the marketing and financial support in terms of promoting and organizing events for herbal products as well as financial support for setting up booth in both domestic and overseas. However, for the larger corporations, they face problem with the medical regulations for entering some countries and the government could not help them. Therefore, they more likely to say that government regulate or deregulate policies are relevant to their businesses.

4.5 Encourage and stimulate growth in the industry

According to the interviews, there were mixed responses to the contributive role of government. Among the ‘Most relevant’ and
‘moderate’, they perceived that the Thai government policies had influenced and helped in the growth of its industry. Baan Thai Herb specifically stated that it had benefitted from the government assistance in the improvement of its production technique. It highlighted the importance of government support in achieving competitive advantage in international markets.

The polarized responses were also found in some of these companies. For those who disagreed to the idea that the Thai government policies had influenced the growth of the Thai traditional medicine industry, foreseen ‘least significant’ impact of the Thai government’s creative Thailand campaign in promoting Thai medicine to the global market. More is expected to be done by the government. The expectation for greater governmental commitment had also been cited by companies such as Harnn Natural Home Spa and Hatakabb.
Chapter 5
Conclusion, Discussion, Limitation and Recommendations

5.1 Conclusion
The conclusion of this study derives from the SWOT Analysis, Porter Diamond model and the Five Forces model. Fourteen respondents of Thai traditional medicine as well as herbal products companies have been interviewed. The products range from Traditional medicine, Beauty products, Health product to alternative therapy.

The result shows that the strengths of those companies consist of the success of related industries in overseas markets, knowledge of Thai traditional herbals, expertise in organic production, good reputation and image, doing scientific research, skills and technology for extraction, accreditation by GMP, HALAL products, FDA, production efficiency, high product quality, having quality assurance, setting benchmarks for quality control, having good manufacturing practices, a strong domestic market, wide acceptance among overseas consumers, raw materials sourced locally and overseas, strong overseas base, excel in packaging, competence in management, product differentiation, supportive related industry, the use of online marketing and having strong brand identity.
The findings show that there are numerous opportunities for the TTM and Herbal products. Increasing demand in both domestic and international market, greater awareness of Thai traditional medicine and herbal products, the integration of Asean Economic Corporation, confidence in Asean market, proactive in innovative production methods, support provided by the government and local administrative office are some of the identified opportunities. Strengths and Opportunities in this industry are derived from internal and external factors of their companies which indicate the competitive advantage over potential competitors both local and global market.

Opportunities will be explained as high cost of production, quality of raw materials, shortage of raw materials, high dependency on distributors overseas, limited control over overseas market, low awareness level among overseas consumers, weak international marketing promotional strategy, focusing mainly on exhibition overseas to support international marketing effort, products available in limited International markets, taking more time to see effects of treatment with traditional medicine.

The Threats in this industry are strong competition from both local and international market, weak distribution channels, weakening global economy, political problem in the country, and the shortages of raw materials especially in the low harvest season.
Porter’s Model
Base on the Porter model, many of the Thai traditional medicine manufacturers indicate that the industry has benefitted from favorable factor such as access to raw materials and can ensure the quality and standard their raw material.

For Human resource, staff training programs as well as sharing knowledge and know-how to the management and production of traditional medicines are key factors for this representation. Specialized Factors and Technology has focus on the global standard of production such as GMP, ISO and HACCP to ensure the exporting to global market.

For managerial and administrative factors, as most companies rooted from family business. The hierarchical nature may still be presence in some of these businesses but these companies are becoming more organized under corporate, business and functional units.

The demand conditions in this study consist of size of home market and quality of demand. The study finds that the majority of demand is still heavy on domestic market and regulation of exporting medicine still main barrier to enter some markets, however, the countries that import Thai traditional medicine and herbal products are mainly in Asia and some export to EU as well as in the USA.
Firm Strategy, structure and Rivalry  
Firm strategy embeds structure and rivalry, investment climate and capacity for Innovation. It can be concluded that this industry face a high competition, and all companies interviewed were aware of the highly competitive nature of both the domestic and international market. Some small enterprises faced the problem of intellectual property as a weakness in the industry to protect the Thai wisdom from wealth-rich overseas herbal producers.

Some of these companies also cite the problem of intense domestic competition. The investment climate of the industry has been perceived as positive by all the company that was interviewed. Even the small firms of Traditional Medicine shop has reimaged, rejuvenate and modernized its brand, products packaging and business operation and also exported its products to the U.S.A, Italy, Sweden, France and Mexico.

**Related Industries Supporting Industries**
The study reveals that many of these companies have positive influences of supporting industries of the Thai traditional medicine and herbal products in both the domestic and international market. Some of them find niche markets in five-star hotels, and some supply to leading hospital as well as beauty salon and spa in both domestic and overseas.

**Relevant Government Policies**
It can be concluded that, OTOP herb producers and small business can take advantage of governmental policy, particularly the
marketing and financial support in terms of promoting and organizing events for herbal products and financial support for setting up booth in both domestic and overseas. However, for the larger corporations, they face the restrictions in terms of medical regulations entering certain countries and the government has yet provided any help in these cases. Hence, larger firms are more likely to say that the regulation or deregulation of government policy may be of relevant to this group of business.

5.2 Discussion
Lughtae & 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 the research, which small enterprises agree that the OTOB project has vital impact for their business, particularly for competing in a local market.

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, personal qualities and satisfactory government support. This research also indicated parallel findings that small business found the government policies in terms of financial and marketing supports, is the most relevant for this industry.
For potential competitors, from the 2010 Global Manufacturing Competitiveness Index ranked Thailand 12\textsuperscript{th} 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.

5.3 Limitation
The collecting the data occurred during the 2011 flood in Thailand. Some of the companies’ branches have been devastated from flood disaster. To overcome the problem, the researcher changed expanded the sample to other companies as well as changing the related industries like medical to herbal companies. Smaller sample size is also the limitation of this study, the expectation of sample size should be 18 -20 companies but the flood restrictions has hindered and delayed the data collection process.

5.4 Recommendations
To over 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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