Strategic Planning, Issues, Prospects and the Future of the Malaysian Herbal Industry

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Abstract
The importance of Strategic planning to business organizations either big or small has been emphasized in strategic management literature. Not many researches were conducted to study the applicability of strategic planning in the herbal industry. This article attempts to provide insight to the strategic planning in the herbal industry as well as identifying issues, prospect and future of the Malaysian herbal industry. Herbal industry was classified in two major streams that are culinary herbs, medicinal herbs. The issues identified are such as regulatory issues, consumption of herbal products, product quality, research and development, side effect, imported herbal medicine, pricing, current market status, technology and human resources. Besides that the Malaysian government supported the herbal industry by providing incentives through SME Corporation and other ministries and government agencies. Thus the Malaysian herbal industry has a good potential to grow.

Key words Planning, future, Malaysia, Herbal Industry, strategy

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1. Introduction
Malaysia is rich in tropical rain forest which was occupied with various flora and including herbal plants. In Malaysia, there are more than 2000 plant species that have healing qualities and highly potential to be commercialized (MARDI, 2010). Malaysian Agricultural Research and Development Institute (MARDI) recorded gross profits of more than RM 5.4 billion a year from herbal related products. Therefore, it is important to preserve the value of the medicinal plants as it is economically importance and vast valuable indigenous knowledge such as preparation methods, plant part uses and other traditional knowledge.

However, comparing with other countries such as China and also other ASEAN countries, it’s clearly indicated that Malaysian medicinal and herbal plants industry is still lagging behind. As a result large-scale cultivation of these medicinal herbs should be made to meet future needs. However the main problem of these industries in Malaysia is that the industry is still far away being left behind in terms of Research and Development (R&D). The herbal industry is a strategic investment opportunity, both from an economic as well as a social stand-point. Demand for healthcare services is increasing rapidly, largely on account of population growth and compounded by ageing population, as well as greater affluence and changing life style. The herbal industry has contributed towards the production of diverse products, ranging from health, foods, cosmetics and personal care products. As the production of these products require greater natural ingredients compared to artificial chemical bases, the demand for alternative bases derived mainly from medicinal plants is growing exponentially.

Borneo post recently reported that The Ministry of Health is confident of receiving a bigger allocation in the 2014 Budget to carry out a variety of important programmes, including the development of infrastructure in hospitals throughout the county (Borneo Post August 28, 2013).
Table 1. Malaysian government expenditure of medicinal products

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Expenditure RM millions</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>300</td>
<td>Purchase drugs by public hospital</td>
</tr>
<tr>
<td>2004</td>
<td>800</td>
<td>Subsidize 97% of health care cost</td>
</tr>
<tr>
<td>2010</td>
<td>1200</td>
<td>Payment for effective drugs</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Health Malaysia

The value of Malaysia’s healthcare industry is estimated to be approximately MYR 8.4 billion. As a percentage of GDP, the nation’s total healthcare expenditure is estimated at 4.75% (Malaysia Insider). In terms of per capita expenditure on healthcare, Malaysia’s spending is USD 346 in comparison to China’s USD 278 and the United States’ USD 8608 according to the World Bank. Quoting the Minister of Health, by 2020 Malaysia expects to generate Gross National Income (GNI) of MYR 35.5 billion and create 181,000 jobs in the healthcare sector. (Borneo post) Based on these statistics, the healthcare industry has tremendous potential for growth. Besides that Malaysia’s standard of living have improved mainly based on continued economic growth that fuelled higher incomes and living standards which have changed the nation’s epidemiological population, urbanization and lifestyle transformation. As a result these changes also fuel greater demand for healthcare of all forms and functions.

Table 2. Budget allocation for Ministry of Health

![Budget allocation for Ministry of Health](image)

Source: Ministry of Health
2. Literature review

The literature highlights the importance of Strategic planning to organizations operating in a competitive business environment. Business organizations need to formulate an effective strategic planning to assist them to succeed in the competitive arena. What is an effective plan?

An effective plan is a sequence of decisions and actions which can achieve its objective. An effective plan should include the vision, mission, objective, strategy and policy.

Strategic planning

The review of literature suggests that there isn’t any single universally accepted definition of strategic planning. Some authors define strategic planning differently based on their understanding and experiences. Strategic Planning is a sequence of activities to be executed aimed at achieving the objective/s in a specific time frame. It focuses on the track and the direction it’s going. Since there are a so many models and approaches to creating a strategic plan, the overall emphasis, is on goal-based planning and clear KPI management strategies. Strategic plans are commonly created for a three year period although it can range from 1-10 years. However if the business environment changes so rapidly the strategic plan need to be align accordingly to adapt to the changes in the environment.

Situational analysis

It is important to analyze the organization and its environment as well as finding solutions for its future in formulating the strategies. The analysis should be conducted at internal level and external level to identify all opportunities and threats of the external environment as well as the strengths and weaknesses of the organizations. There are several factors to assess in the external situation analysis: a) Markets (customers); b) Competition; c) Technology; d) Supplier markets; e) Labor markets; f) The economy; g) The regulatory environment.

Analysis of the external environment normally focuses on the customer. Management should be visionary in formulating customer strategy, and should do so by thinking about market environment shifts, how these could impact customer sets, and whether those customer sets are the ones the company wishes to serve. Analysis of the competitive environment is also performed, many times based on the framework suggested by Michael Porter.

Researchers have recommended a series of action steps or guidelines in accordance to which planners should plan. The key components of ‘strategic planning’ include an understanding of an entity’s vision, mission, values and strategies

a) Vision: outlines what the organization wants to be. It is a long-term view and concentrates on the future.

b) Mission: The fundamental purpose of an organization or an enterprise, describing why it exists and what it does to achieve its vision.

c) Values: Beliefs and norms that are shared among the stakeholders of an organization.

d) Strategy: A systematic approached to arrive at objective/s in a specific time frame. As environment changes the strategy changes accordingly. Strategic orientation should be structure follow strategy.

Some authors and practitioner called strategy as a roadmap to arrive at the objective of the organization. Strategic planning is a very important business activity. It is practiced widely informally and formally. Strategic planning and decision processes should end with objectives and a roadmap of ways to achieve them. The goal of strategic planning mechanisms like formal planning is to increase specificity in business operation, especially when long-term and high-stake activities are involved.

One of the core goals when drafting a strategic plan is to develop it in a way that is easily translatable into action plans. Most strategic plans address high level initiatives and overarching goals. Some of the terminology used in strategic planning is such as: desired end states, plans, policies, goals, objectives, strategies, tactics and actions. Definitions vary, overlap and fail to achieve clarity.

George Friedman in The Next 100 Years summarizes “the fundamental principle of strategic planning: hope for the best, plan for the worst” (Friedman 2010).

Many people are confused between vision statements for the mission statement, and sometimes it’s being mixed up as a longer term version of the other. However they are distinct; with the vision being a
A descriptive picture of a desired future state; and the mission being a statement of a rationale, applicable now as well as in the future. The mission is therefore the means of successfully achieving the vision. For an organization’s vision and mission to be effective, the organizational members must understand it and be able to incorporate it into the organization’s culture. It should also be assessed internally and externally.

**Tools and approaches**

Among the most widely used tools for strategic planning is SWOT analysis and SWOT Matrix. (SWOT means S for Strengths, W for Weaknesses, O for Opportunities, and T for Threats). The main objective of this tool is to analyze internal strategic factors, strengths and weaknesses attributed to the organization, and external factors beyond control of the organization such as opportunities and threats.

**Benefits of Strategic planning**

- Focus on organizational objectives;
- Simplify the decision making process;
- As a reference for members of the organization to keep them on the strategic direction;
- Grab potential opportunities;
- Provide a systematic way of handling future challenges, uncertainties’ and business risk;
- Identify and focus on areas requiring change;
- Guide for budget and execution of strategy.

**Global herbal Markets**

Figure 1 illustrate the global market value for herbal Industry is expected to reached US$ 5 thrillion in 2050(World Bank Report). The global market growth for the industry is expected to be 7% per annum from year 2000 to 2050. Whereas the domestic market for medicinal herbs is forecasted to RM 4.55 billion.(Table 3). This table illustrate the three types of medicinal herbs namely Flavor & fragrance Pharmaceuticals/nutraceuticals T/CM and herbal remedies.

**Medicinal Herb Profile**

The domestic market value for medicinal plant is estimated RM 4.55 billion.

![Global Market Value of Herbal Industry](source: World Bank Report)

*Figure 1. Illustrate the global market value and the forecasted market value for Herbal Industry*
Types of Herbs

Culinary herbs

Culinary herbs are distinguished from vegetables in that, like spices, they are used in small amounts and provide flavor rather than substance to food.

![Culinary herbs](Source: Wikipedia)

Figure 2. Culinary herbs

Many culinary herbs are perennials such as thyme or lavender, while others are biennials such as parsley or annuals like basil. Some perennial herbs are shrubs (such as rosemary, *Rosmarinus officinalis*), or trees (such as bay laurel, *Laurus nobilis*) – this contrasts with botanical herbs, which by definition cannot be woody plants. Some plants are used as both herbs and spices, such as dill weed and dill seed or coriander leaves and seeds. Also, there are some herbs such as those in the mint family that are used for both culinary and medicinal purposes.

Medicinal herbs

The domestic market value for medicinal plant is estimated RM 4.55 billion.

Table 3. Types of Medicinal herbs and market value

<table>
<thead>
<tr>
<th>Types of herbs</th>
<th>Value RM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flavor &amp; fragrance</td>
<td>1.6 billions</td>
</tr>
<tr>
<td>Pharmaceuticals/ nutraceuticals</td>
<td>0.95 billions</td>
</tr>
<tr>
<td>T/CM and herbal remedies</td>
<td>2 billions</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4.55 billions</td>
</tr>
</tbody>
</table>

Source: MARDI

![Medicinal herbs](Source: Wikipedia)

Figure 3. Medicinal herb
Traditional medicines, including herbal medicines, have been, and continue to be, used in every country around the world in some capacity. In much of the developing world, 70–95% of the populations rely on these traditional medicines for primary care. The global market for traditional medicines was estimated at US$ 83 billion annually in 2008, with a rate of increase that has been exponential. In addition, herbal alternatives are increasingly being used to control soaring healthcare costs. Although we may think that our pharmaceutically-based medical practices are the norm for the world, this is not true. In fact, 80% of the world’s population relies on herbal remedies because they cannot afford Western drugs. Even in many wealthy nations, herbal remedies are being re-integrated into mainstream medicine. Traditionally, botanists define an herb as any plant that dies down to the ground each winter.

The Labisia pumila herb has been used for centuries in Malaysian traditional medicine. Its documented use has been for conditions relating to the reproductive system, menstruation difficulties such as cramping, vaginal infections, flatulence, constipation and lethargy. It is known to help relieve stress and produce better moods.

Some plants contain phytochemicals that have effects on the body. There may be some effects when consumed in the small levels that typify culinary “spicing”, and some herbs are toxic in larger quantities. For instance, some types of herbal extract, such as the extract of St. John’s-wort (Hypericum perforatum) or of kava (Piper methysticum) can be used for medical purposes to relieve depression and stress. However, large amounts of these herbs may lead to toxic overload that may involve complications, some of a serious nature, and should be used with caution.

Herbs have long been used as the basis of traditional Chinese herbal medicine, with usage dating as far back as the first century CE and far before. In India, the ayurveda medicinal system is based on herbs. Medicinal use of herbs in Western cultures has its roots in the Hippocratic (Greek) elemental healing system, based on a quaternary elemental healing metaphor. Famous herbalist of the Western tradition include Avicenna (Persian), Galen (Roman), Paracelsus (German Swiss), Culpepper (English) and the botanically inclined Eclectic physicians of 19th century/early 20th century America (John Milton Scudder, Harvey Wickes Felter, John Uri Lloyd). Modern pharmaceuticals had their origins in crude herbal medicines, and to this day, some drugs are still extracted as fractionate/isolate compounds from raw herbs and then purified to meet pharmaceutical standards.

3. Issues in Malaysian herbal industry

Regulatory Issues

Regulation of traditional medicines is a complicated and challenging issue as it is highly dependent upon experience with use of these products. Model countries such as China, India, and South Africa create usable templates, as do the guidelines on regulation and registration of traditional or herbal medicines produced in the WHO African, Eastern Mediterranean, and South-East Asian regions and in the European Union. Regulatory status and the associated terminology vary widely.

Consumption of herbal products

Herbal products are being use in many ways such as: a) Over-the-counter (OTC) medications, b) As self-medication or self-care, c) As home remedies, or as dietary supplements, d) Health foods, e) functional foods, f) Phytoprotectant. Besides that these herbal products were being used with many different name and brands and labeled in different forms and various definitions of these terms from country to country.

Product quality

According to Malaysian Standard MS 1860:2005, herbal medicine include herbs, herbal materials, herbal preparations and finished herbal products that contain active ingredients, parts of plants, or other plant materials, or a combination thereof. Herbal products consist of herbal preparations made by one or more herbs, in any dosage forms. A concentrated form of the herbal preparation obtained by processing the crude herb with an appropriate solvent, by maceration, fractionation, infusion, supercritical fluid extraction, or any other means of extraction is known as herbal extract according to the Malaysian Standard as stated earlier.
Table 4. Standardization of herbal preparation

<table>
<thead>
<tr>
<th>Raw materials</th>
<th>Source &amp; supply, authenticity, storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plantation</td>
<td>Silvicultural practices, Good agricultural practice (GAP)</td>
</tr>
<tr>
<td>Processing</td>
<td>Technique/technologies, good manufacturing practices (GMP)</td>
</tr>
<tr>
<td>Product development</td>
<td>Formulation, good manufacturing practice (GMP)</td>
</tr>
</tbody>
</table>

Source: FRIM

To control quality and to ensure safety and efficacy in production of traditional medicines is difficult. WHO, in cooperation with the WHO Regional Offices and Member States, has produced a series of technical documents in this field, including publications on Good Agricultural and Collection Practices (GACP) and Good Manufacturing Practices (GMP), along with other technical support, to assist with standardization and creation of high quality products (WHO Report, 2009).

Table 5. Quality assurance of herbal product

<table>
<thead>
<tr>
<th>Heavy metal</th>
<th>(&lt;10\text{ppm})</th>
<th>(&lt;5\text{ppm})</th>
<th>(&lt;0.5\text{ppm})</th>
<th>(&lt;5\times10^2/\text{gm})</th>
<th>(&lt;5\times10^2/\text{gm})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (Pb)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic (As)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td></td>
<td></td>
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</tbody>
</table>

Micro organism count

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>(&lt;5\times10^4/\text{gm})</th>
<th>(&lt;5\times10^2/\text{gm})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fungus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Oral/topical | \(<5\times10^2/\text{gm}\) |

Source: FRIM

Evaluation of quality, safety and efficacy based on research is needed to improve approaches to assessment of traditional medicines, a situation made difficult to remedy in light of historically inadequate public and private funding to address this growing concern.

World Health Assembly resolution 62.13, passed in May 2009 by the WHO Member States urges national governments to respect, preserve and widely communicate traditional medicine knowledge while formulating national policies and regulations to promote appropriate, safe, and effective use; to further develop traditional medicine based on research and innovation, and to consider the inclusion of traditional medicine into their national health systems. WHA 62.13 also urges Member States to cooperate with each other and to share knowledge while working to strengthen communication between conventional and traditional practitioners (WHO report, 2009).

4. Research and Development

The Importance of R&D in Herbal Medicine

a) Short Term

(i) To ensure the safety, efficacy and quality of the products;
(ii) To provide scientific data that supports the claimed.

b) Long Term

(i) To support the herbal industry for global market;
(ii) To produce new drugs that originates from local herbal plants;
(iii) To ensure the continuous supply of quality raw material/plants.
Efforts have been channeled to improve the infrastructure and facilities to further develop the herbal industry. But regulatory plays an important role which can influence and shape the speed of industry growth and development (Ministry of Agriculture Malaysia Bulletin, 2013). The Malaysia Industry Government Group for High Technology (MIGHT) published the National Herbal Products Blueprint which aims to address issues on the strength, weakness and background of the local industry. At the same time, it will compare the local herbal industry with the global scenario. The blueprint was prepared by the MIGHT Interest Group (MIG) in Herbal Products, consisting of key players in the local herbal industry, universities, research institutions and relevant ministries. Besides that the document spells out very clearly what the government can do and what the industry can do. In line with that the establishment of Malaysian Herbal Corporation Sdn Bhd (MHC) which had begun its operations on Jan 1 2006. The inception of the company is one of the major recommendations made in the National Herbal Products Blueprint.

**Side effects**

Medicine and health related products are highly regulated in Malaysia by the Ministry of Health. But, some over the counter products are available to consumers and they can purchase them without prior consent from doctors or pharmacists. This is something worrying. Some of the herbal medicine, as mentioned earlier, contains active ingredients which can cause serious side effects to consumers when used. It is important that consumers go through authorized personnel, in this case a doctor or pharmacist, to purchasing them. Moreover, the consumer can be advised accordingly and based on his/her condition. Even if the product does not need to be a controlled item, proper labeling should be in place. Some researchers found that consumers at times not able to read the labels due to the small font and improper printing.

**Imported herbal medicine**

For imported products, it should be a mandatory to label it in the national languages or English. Ministry of Health should lead the enforcement unit and regulate the sold of herbal medicine in the market to ensure that the products are safe to be consumed. Mandatory safety standards on labeling and improvement in labeling aspects should be mandatory. Strong regulatory measures supported by strict enforcement procedures should be able to assist the consumer to consume safer herbal products and medicine.

**Pricing**

Price factor is critical to ensure sustainable demand and usage of the herbal medicine. Researchers have proven that based on the market potentials more botanicals are needed and it is very costly to set up each botanical centre. However it was proven that a mixture of active herbal components is better than one.
Current market status

Current market status shows that there is an increased in demand for imported herbs due to shortage of supply in the local market. Hence imported herbs become so popular in Malaysia.

Technology

Malaysia is being far left behind in technological of herbal medicine comparing with China India and even Thailand. These countries manage to offer cheaper medicinal prices because of low operating cost compared to Malaysia.

Processing and Extraction Technology

a) Efficient processing and extraction techniques are required to prevent the loss of phytopharmaceutical;

b) Efficient processing and extraction techniques are required to prevent the loss of phytopharmaceutical.

(Source: FRIM)

Human resources

Competent and skill human resources in herbal medicines is a major issues which need to be address professionally and immediately. Malaysian government need to play a major role to address this issue. Although the Malaysian government encourages the Research and Development activities in this area but Malaysia is far behind its competitors in this area.

Prospects and potentials of the herbal business

Table 6. GNI contribution 2013-2020

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GNI/ US$</td>
<td>0.625</td>
<td>0.837</td>
<td>2.384</td>
<td>4.296</td>
<td>5.854</td>
<td>7.142</td>
<td>8.870</td>
<td>10.89</td>
</tr>
</tbody>
</table>

Source: Ramlan et al UTM

Indeed, the country’s tenth five-year plan, which will end in 2015, made specific reference to the herbal industry as a target for greater investment from consortiums and co-operatives, with regulations streamlined as an incentive. Moreover, statistics have shown that the global trade in natural plant products is expected to triple between 2010 and 2020, with the Malaysian industry forecast to grow at a rate of 15% per annum, with its market value rising from RM7bn (US$2.1bn) in 2010 to some RM29bn (US$8.8bn) in 2012. According to the Malaysian Agricultural Research and Development Institute, there is great potential for high income from the industry, with herbal-based food accounting for between 30% and 40% of all food products sold locally, with this figure expected to grow by to 50% in the near future.

Malaysian government professes support

Table 7. Government Investments In Pre Clinical And Clinical Trials By Anchor Companies(2011)

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>INVESTMENTS(RMmillions)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotropics Bhd</td>
<td>25.86</td>
</tr>
<tr>
<td>Nova lab Sdn Bhd</td>
<td>16.29</td>
</tr>
<tr>
<td>Aning Resources Sdn Bhd</td>
<td>25.04</td>
</tr>
<tr>
<td>Natureceuticals Sdn Bhd</td>
<td>8.03</td>
</tr>
<tr>
<td>Phyto Biznets Sdn Bhd</td>
<td>9.8</td>
</tr>
<tr>
<td>Natural Wellness Sdn Bhd</td>
<td>26.0</td>
</tr>
<tr>
<td>Bioalpha International sdn bhd</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Source: Ramlan et al
**Investments for the first two years of trial subject to review based on trial result.**

The government clearly agrees, and by writing cheques for further research into the field, it is acknowledging the economic benefits to the country. The shift in healthcare towards natural products with therapeutic value provides vast opportunities for Malaysia to become a significant global player, given our rich biodiversity.

5. **Conclusion**

The importance of strategic planning and how to formulate it has been widely discussed in the literature. In addition, the discussions on development of the herbal industry as well as identifying issues, prospect and future of the Malaysian herbal industry was briefly done. Moreover the herbal industry has been classified in two major streams that is culinary herbs, medicinal herbs. In addition the issues in the herbal industries are identified such as regulatory issues, consumption of herbal products, product quality, research and development, side effect, imported herbal medicine, pricing, current market status, technology, human resources. Besides that the Malaysian government supported the herbal industry by providing incentives through SME Corporation and also supported the Research and development activities by its agencies such as FRIM and MARDI. Thus the herbal industry in Malaysia is a strategic industry with a high growth potential.

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