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Article

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Article

Targeting Open Market with Strategic Business Innovations: A Case Study of Growth Dynamics in Essential Oil and Aromatherapy Industry

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Abstract: Essential oil and aromatherapy industry is increasingly gaining prominence in the global market. Previous studies have been carried out on the benefits of essential oils in healthcare and as part of the healing arts of many cultures, as a proven method of caring for our physical, spiritual and mental health. To enter an open market and promote the awareness of essential oils and aromatherapy, strategic planning capability is important to drive business growth. This paper utilizes a simulation-based strategic decision support system (SSDSS) to conduct a real-world case study with empirical data and examine the effectiveness of SSDSS applications in supporting market development and business growth with service innovations. Through iterative computer simulations and scenario analysis of healthcare promotion and business development for performance improvement, the effects of strategic business innovations could be systematically analyzed to identify different stages of adopters and effective approaches to achieve the established objectives with market value creation.

Keywords: Business Model; Strategy; Decision Support; Entrepreneurship; Business Growth

1. Introduction

The demand of essential oil has experienced a huge surge in popularity for relaxation therapies and diverse benefits. The global essential oil market witnesses higher growth rate and forecasts to reach US\$ 3,226.2 Million by 2025 [1]. The positive impact in treatments using aromatherapy, in addition with the trend of the generation X and millennials for body health and awareness of the benefits in natural medicine, generates high demand of the product among therapists and spas, particularly essential oil, that has a market share of 70% approximately [2]. At present, U.S., China and India are the top three major producers, consumers and exporters of essential oil in the world. Previous studies have proposed that the essential oil product is becoming more and more popular with consumers, and the largest market share in consumer products is controlled by citrus oil because of its antibacterial, disinfecting and decontaminating properties as well as its properties for cleaning and laundry [3].

The global essential oil market is fragmented into the product type, flavours, and application. The categories are by type of product, such as essential oil, blended oil, and carrier oil, has been the first holder of the major market share. Another segment is by flavours, for example fruits, spices, flowers, herbs, and others, where fruits have the higher demand from consumers. The final segment is by application including food and beverages, medical, personal care, homecare, Spa and wellness products [4]. However, personal care products such as cosmetics, toiletries and fragrances are the ones with the highest market share. Essential oils are claimed to have many health benefits and often used

in aromatherapy, which is an alternative medicine compared to conventional drugs. With regard to the healthcare benefits, the demand of essential oil for pharmaceutical and medical purposes is expected to increase and boost the global market. In other words, it is necessary for companies to understand the importance of service innovation and business model innovation development in the essential oil market.

The aromatherapy market become more competitive due to the growing market and wide segment of application. Previous studies have proposed the importance of open innovation comprising technological innovation, business innovation, and market development [5,6]. Service innovation becomes a key factor for firms to innovate business model. Actually, product and services development teams are facing a revolution stage which managers have to adjust and create strategies to develop the market and add value to the company. Highsmith [7] identifies five key business objectives for a good exploration process and reliable innovation: (1) Continuous innovation to deliver on current customer requirements; (2) Product adaptability to deliver on future customer requirements; (3) Reduce the delivery schedules to meet market windows and improve return on investment (ROI); (4) People and process adaptability to respond to the product and business change; and (5) Reliable results to support business growth and profitability. Yan [8] proposes a framework of simulation-based strategic decision support system (SSDSS) as a new generation of entrepreneurial business modelling helping the evaluation through the process of business development, in addition with technological innovations, open products/service innovation and business model innovation comprising global values for sustainable development. That is why it is necessary for companies to invest not only in the innovation of their products and services, but also in the process, machinery and personnel training. Accordingly, if a company from the aromatherapy and essential oil industry wants to maximize market values, increase the firm value and improve customer commitment, service innovation is one of the critical strategies for business developments. Consequently, to have a sustainable and effective growth strategy, the service innovation must be at the centre of the organisation management process [9–11].

2. The Theoretical Framework

Knowledge assets are the drivers of an organization's success that play a key role to create value and improve business performance with entrepreneurial thinking and growing business opportunity [8]. The sufficient use of knowledge is a challenge for companies due to the ever faster changing conditions at the global market. The strategic planning and decision-making model should be analysed to identify the actions that take the company to implement entrepreneurial thinking [12–14], to follow the future forecasts in the industry.

In the aromatherapy and essential oil industry, a service innovation provide consumers more choices including relaxation therapies, wellness centres, treatments for elder people and post-partum care. With the right business model innovation, firms can develop higher market share [15–18], and deliver a high value of product and service for adding the business value. Previous research has shown that business models represent the sources of new value creation and potential competitive advantage, delivering and capturing the mechanisms employed, and acting as drivers of firm performance [18]. Hence, designing a new business model requires intuition, creativity, and a deep understanding of user needs. Brettel [19,20] demonstrates that entrepreneurs should explicitly focus on the relationship with their key customers when designing business models of their ventures.

Previous studies show that across different industries, the longer a company retains a loyal customer, the more market values the customer generates. In the long run, firms may encourage general customers to loyal customers based on customer relationship development. Firms can develop strong loyalty programs through the different stages of customer relationship and recognize the differences between these stages to identify the critical impact on competitiveness and profitability. However, there are challenges in the essential oil and aromatherapy industry. First, most people can't fully understand the efficacy and the application of essential oil in Asia. The second challenge is the difficulty for companies to implement the promotion. Finally, it is difficult for people to

understand or evaluate the quality of essential oils. Therefore, this paper attempts to demonstrate how companies in the aromatherapy industry can enhance their strategic planning and performance with value creations and service innovations by applying the principles of System Dynamics methodology. The simulation-based strategic decision support system (SSDSS) proposed by Yan [8], was adapted to demonstrate how the business model innovation can support the managerial decision-making.

3. Methodology and Strategic Architecture

Warren [21] proposed Strategy Dynamics methodology that integrates simulation model-based management and resource-based view for analysing different firm’s strategies and evaluating this performs over time. Figure 1 shows how SSDSS was adapted and can be used to enhance the managerial decisions for strategic service innovations and business development. To apply this proposed model, it is essential to understand the external factors and resources that have impacts on the performance of the company. Through the strategic architecture, it processes all the data and information to depict a clear picture of the situation of the company and further evaluate the performance. Managers can develop better strategies and effectively utilize the company’s resources, as well as taking advantage of the external factors such as the market demand and healthcare awareness. The strategic architecture of SSDSS can support managers in decision-making processes with the feedback structure of interrelated variables among service innovations, business model development, consumer awareness, and market development [8].

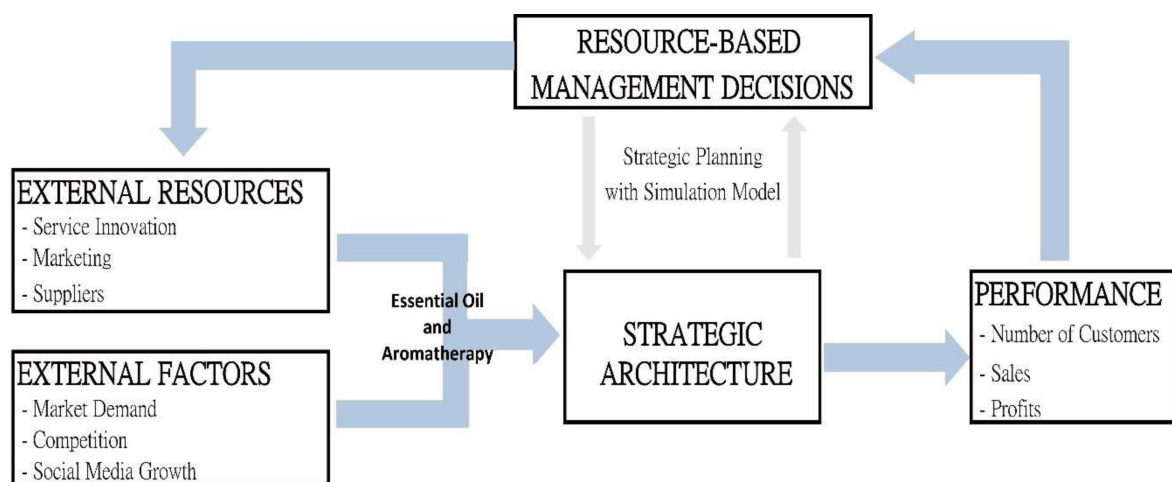


Figure 1. The applications of SSDSS for the Essential Oil and Aromatherapy Industry.

According to [22–24], the strategic architecture contributes to achieve a dynamic and systematic decision making with business model innovations, and indicates that the outcome of a strategy from a firm as well as the business performance is the result of the interaction among the innovations, business development, and resource-based management decisions over time. Three following elements are modelled: (1) business performance based on resources, management decisions and external factors; (2) the change of customer’s awareness over time; and (3) the increase and decrease of customers display as inflows and outflows depending upon the existing resource levels, management decisions, and external factors. The aforementioned elements make the strategic architecture and demonstrate how innovations affect the performance over time. In order to evaluate the impact of a business growth strategy, it is necessary to identify the customer awareness through a series of stages. According to the previous studies [8], a business innovation strategy, can be evaluated and analysed, by developing potential customers to loyal customers through five levels of awareness. These different levels of customer awareness should be identified and evaluated separately. Consequently, managers can create and use the better marketing strategies to approach and develop the customers in the growing market. Therefore, the strategic architecture is able to explain the interaction between service innovations,

market environment, and customer development, the firm can apply a specific marketing strategy to the customer depending on its awareness level and be more effective in its development through the stages, and measure the performance of the company in the industry. Figure 2 is the conceptual strategic architecture of market development supporting performance evaluation of a business growth strategy.

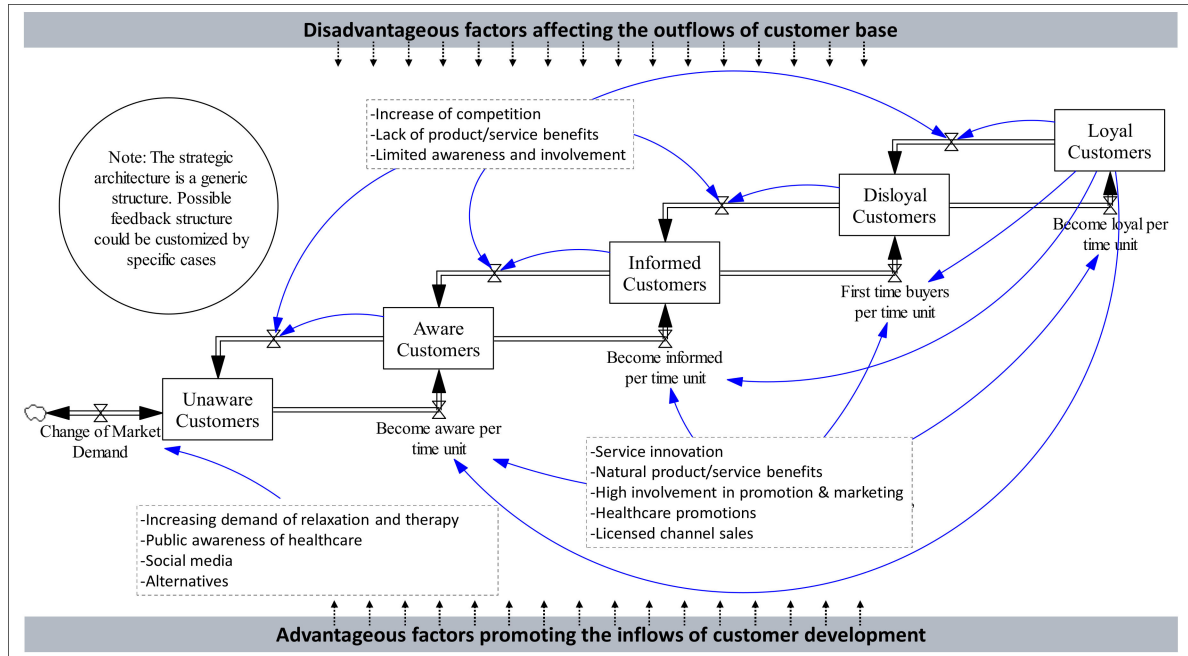


Figure 2. Strategic architecture of market development in the Essential Oil and Aromatherapy industry.

For organizations and managers, the marketing challenge for the aromatherapy industry is to make an effective use of company resources, such as the use of natural products to replace traditional medicines therapy. Promotion allows consumers to understand the purpose and quality of the product and continuously enhance the inflows of customer awareness. On the other hand, firms need to minimize the risk factors that influence the outflows of customers in every stage.

These factors include the increase of competitors, the lack of knowledge of the quality and benefits of the products, medical reports with negative reviews to the industry, the new products and its advancement, etc.. If a company wants to promote their new services and business models, managers can divide their marketing budgets into four categories in order to maximize the resources at different stages: (1) innovations and marketing on building awareness; (2) communicating the brand values and win customer interest; (3) promotions to persuade interested consumers to add the brand to those they purchase; and (4) loyalty promotions to persuade consumers to purchase only this brand [8]. Previous studies indicate that defining and measuring brand loyalty is extremely difficult, customer loyalty can be a major resource to sustain the growth, profit and asset. The proposed model helps to utilize the service innovations and marketing expenses in the most effective way to approach the most critical parts of customer developments.

Applying the customer awareness architecture is to create the marketing strategy by levels of awareness, and integrate with the market environment and business model innovations to support managers in the decision-making process, services, marketing and promotions, and business development strategies from a systematic point of view. At the same time, the impact of the service innovation can be analysed at the different customer stages. This strategic architecture is also adapted for a specific case to generate some feedback about the performance, service innovation and development strategies.

4. Model-Based Case Study with Improved Business Growth Strategy

This paper has applied the proposed model for the analysis of the business growth strategy. This section investigates and evaluates the effectiveness of the model in supporting decision-making, strategic planning and business growth strategy development in this particular industry. Through interviews and discussions with the general manager and relevant experts, empirical data were collected and the business model innovation was clarified. In addition, iterative computer simulations and scenario analysis are performed to evaluate and demonstrate the model in this paper. In order to improve business performance, this model utilizes a market-oriented business growth strategy to obtain and retain loyal customers by creating market value and sharing value. This case study carried out three scenarios, each represents the potential future development of management decisions and the response to increase awareness of customers. Consequently, the reactions to the development of choice refers to strategy formulation. Scenarios become part of strategic planning focusing on the future development. Strategic planning provides the support for establishing the consequences of strategic decisions for specific resource variants to achieve set goals. The strategy of analysing and formulating different scenarios during the planning process is to explain how to improve the organization’s performance and competitiveness in order to respond to the ever-changing market environment.

The subject of this case study is the market development of German brand in Asia with certified organic agriculture. In addition, the product is tested for authenticity and quality by experienced professionals and laboratories. The company started the product launch at the end of 2015 and gained revenue from the very beginning. Sales promotion was conducted through seminars and marketing activities. However, in the past two years, the company’s sales have been increasing repeatedly every year. The forecast of market expects to play a significant role in the industry. Therefore, the company continue to make efforts and develop a business growth strategy by using SSDSS framework to support the decision-making and service innovation. The company has established the strategic objectives with time frame in terms of revenues, disloyal and loyal customers, and the numbers of distributor agents.

Taking more than 1.5 million total population in Taipei City and New Taipei City between the ages of 20 and 49 years old, the target customer analysis were listed as the following (Table 1).

Table 1. Target customer analysis for Essential Oil and Aromatherapy industry.

Segment	Percentage	Category
Monthly Sales Amount	75.60%	NTD\$ 1,000
	22.20%	NTD\$ 1,001 - NTD\$ 3,000
Gender Proportion	16.50%	Male
	83.50%	Female
Age Proportion	52.80%	30–39 years old
	27.30%	20–29 years old
Marital Status Proportion	60.80%	Single
	39.20%	Married
Education Proportion	60.20%	College and University
	36.40%	Business Area
Monthly Family Income	23.30%	Service Industry
	26.10%	NTD\$ 30,001–NTD\$ 50,000
	22.20%	NTD\$ 50,001–NTD\$ 70,000

Source: Data collected from the case company.

Following the five-stage strategic architecture of market development, the characteristics and number of customers in different stages can be identified and categorized as following:

- Stage 1: *Unaware Customers*. Based on the total population of Taipei City in 2016, we identify population of 357,531 between the ages from 20 to 39 years old, the occupation is college and university students with incomes from NTD\$30,000 to NTD\$70,000.

- Stage 2: *Aware Customer*. With 20,000 populations from the fan pages on social media, and people who attended events, seminars and speeches held by the company.
- Stage 3: *Informed Customers*. Customers know the details about the brand and even search for extra information. People who usually participate in forums, seminars, events and speeches of the company. The number is about 2,000. They are involved in events from the industry in general.
- Stage 4: *Disloyal Customers*. Customers that purchase the company’s products for the first time, but also purchase products from the competitors. The population is about 200 and spend an average of NTD\$3,000.
- Stage 5: *Loyal Customers*. The population is about 120 and purchase at least twice a year or spend NTD\$20,000 a year.

The total marketing expenses of the company as well as the budget is divided into four categories as below.

- Build awareness (Unaware to Aware): by organizing the speeches to promote new products and the service innovations; and invite celebrities for endorsement; and provide some demo videos of the product and features for TV, to create awareness of the brand using TV Shopping; a viral marketing campaign through social media networks like Facebook, Leaflet, Email and others, in order to reach the potential customers, etc.
- Win customer interest (Aware to Informed): in order to increase the brand values, TV shopping marketing and the recruitment of sales agents to give speeches and introduce product features, etc.
- Customers purchase the brand (Informed to Disloyal): sponsoring public events to display the brand; and get opinion leaders and recommendations from specialists; and continue the trial and experience marketing with discount coupons to persuade potential customers to consume the brand, etc.
- Customers purchase only SEO Brand (Disloyal to Loyal): Keep the customer informed about the updated innovation and the service of the company; the interaction with the customer through Facebook fan page and clubs, posting product demo videos, and information of the brand; giving VIP Club and membership Cards with discounts coupons, even provide birthday and holiday gifts to encourage repeated purchase and provide personal information like E-mail and cell phone numbers for the newsletters, etc.

Figure 3, shows the original situation of the company, after the analysis and data collection of the last two years of the company. It was identified that most of the sales come from disloyal customers. If the company can access to the huge potential customers and enhance the inflows from potential customers to active ones, the performance of the company can be improved and the growth revenues.

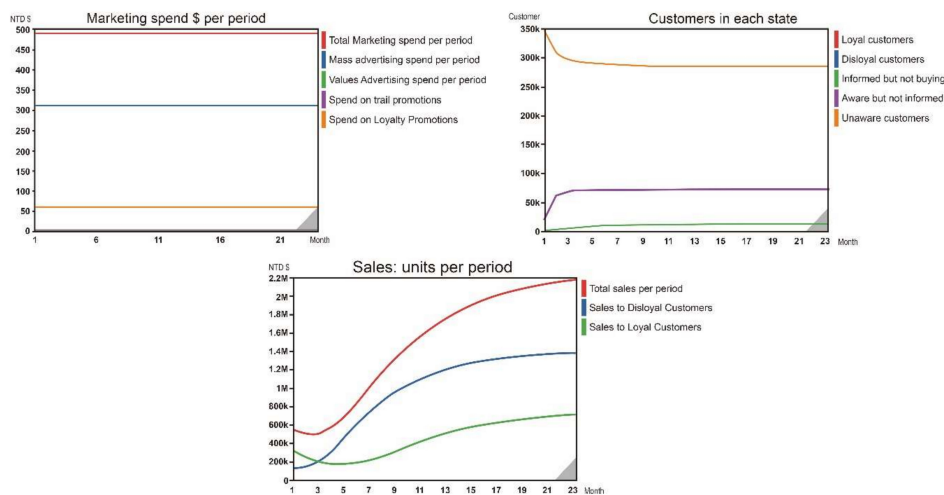


Figure 3. Simulated results of the original strategic business model and performance.

5. Evaluating the Impacts of Market Development Strategy at Different Strategies

As a demonstrative case, three different strategies and scenarios are tested in the simulation model to assess the future performance of each strategy, and how it affect the five stages of market development and the company’s business growth.

The first scenario of the company, strategy A, focused on increased distribution channels by the recruitment of sales agents to promote the products and to increase sales. The budget for the marketing in the first stage is increased and an equal budget are maintained at the other stages. The celebrities’ endorsements ads and speeches to promote the product and attract distributor’s interest to follow up the product are very important for this strategic development. As shown in Table 2, this strategy generates the increase on sales of 30.32% for the first year and 31.13% for the second year, and is hard to reach the stabilized strategic objective of sales. Even though, the potential customers will be encouraged to become actual customers, the estimated impact for the first year on the number of disloyal customers will increase of 30.95% and 28.85% for loyal customers. For the second year, it increases of 31% for loyal and disloyal customers.

Table 2. Impact analysis of market development strategy (based on demonstrative simulations).

	<i>Strategic Focus</i>	<i>Impacts on the Number of Customers Gained in 1 Years</i>	<i>Impacts on the Number of Customers Gained in 2 Years</i>	<i>Impacts on 1 Years Sales</i>	<i>Impacts on 2 Years Sales</i>
<i>Strategy A</i>	- Increase recruitment of distribution agents	30.95%	31.15%	30.32%	31.13%
		28.85%	31.10%		
<i>Strategy B</i>	- Increase brand exposure by an active TV shopping with telesales	130%	135.07%	126.95%	134.70%
		119.94%	134.01%		
<i>Strategy C</i>	- Increase recruitment of distribution agents	199.91%	203.51%	195.72%	203.25%
	- Increase TV shopping marketing	186.09%	202.75%		

To the second scenario, strategy B, focused on increasing the brand exposure by a more active TV shopping marketing. Advertising by TV and social media, can be very effective and reach more potential customers, however, TV marketing can be very expensive. Accordingly, the estimated average sales per period will be increased by more than 210%. In other words, it means an increase on total sales of 134.70% by the second year. The simulation suggests a 130% increase in disloyal customers and 119.94% for loyal customers in the first year; and an increase of 135.07% of disloyal customers and a more significantly increase on loyal customers of 134.01% for the second year. Although strategy B will drive the sales and the numbers of customers, marketing and operational expenses will be needed.

For the third scenario with strategy C, the company consider to combine strategy A and B, with the purpose of accessing almost all the potential customers and promote them into active customers. Increasing the total marketing budget will let the company to focus on reaching the potential customers by increasing the distributor agents. On the other hand, increasing the TV shopping marketing and telesales might facilitate increases of 199.91% and 186.09% on disloyal and loyal customers respectively; as for the second year 203.51% increase in disloyal customers and 202.75% on loyal customers. Therefore, the impact on sales in the first year is an increase of 195.72% and 203.25%. With the testing by simulations, the changes of customers in different stages are able to be displayed systematically and can be modified according to the different situations or scenarios.

6. Discussion and Implications

By using computer simulation techniques, Figure 4 shows the results and comparisons of three scenarios for different entrepreneurial strategies to support business decisions. Three of these intended strategies focus on promoting potential customers and developing active customers. All scenarios generate higher sales to the company in the next two years as future prospects. The key point is to determine the relationship between cost and profit so that it can be identified which situation or under what circumstances to increase in marketing expenses and cost effectiveness. At the same time,

the proposed framework helps to evaluate the inflows and outflows of customers through the five stages, what advantages and disadvantage factors affect them in the aromatherapy industry.

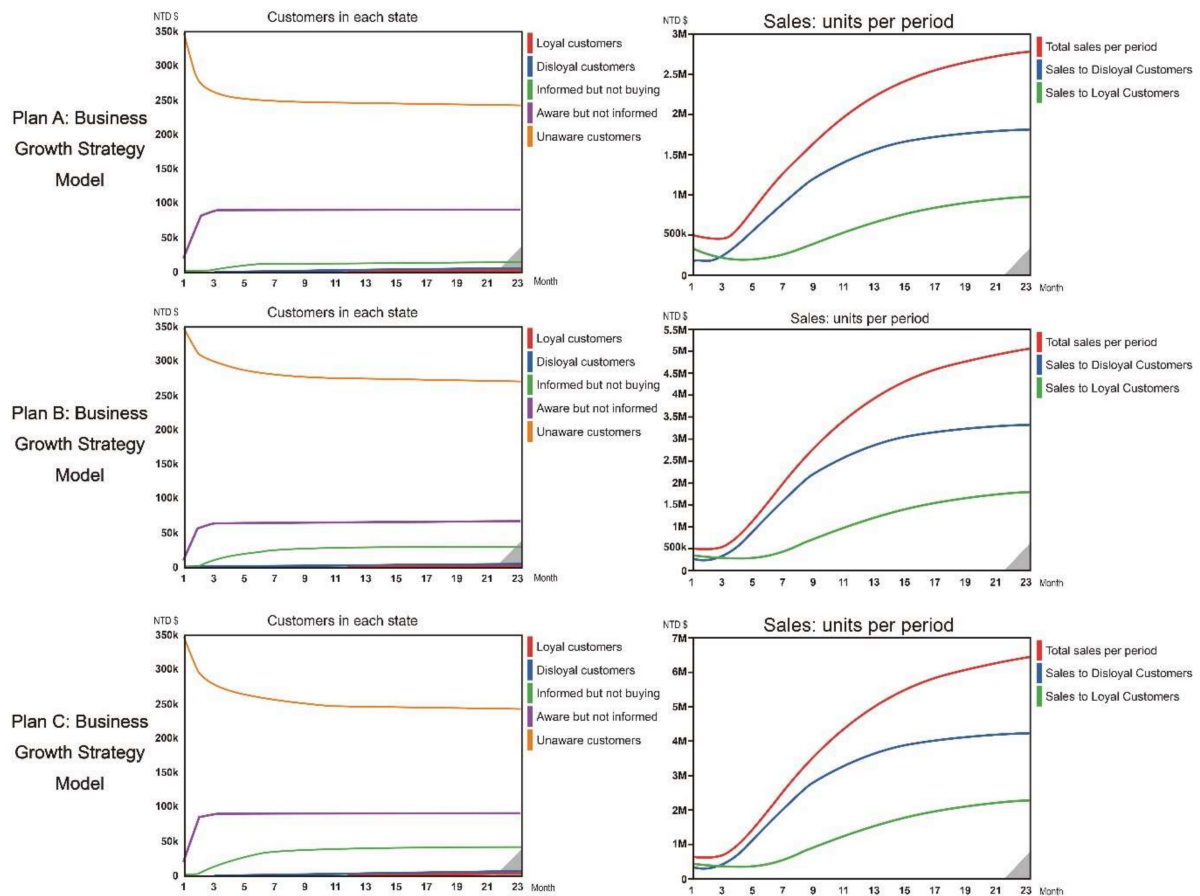


Figure 4. Simulated results and key performance comparison of different strategies.

This article examines how to implement service innovation and business innovation and to develop customers in the essential oil market as a tool for organising market development strategies that drive business growth. Effective marketing activities can help companies in this industry to develop their capabilities and contribute to prospective growth. This is particularly important in emerging markets or start-up business with dynamic environments, which require companies to update their capabilities for survival and sustainability. A strategic architecture and model-based scenario planning are essentials to develop business growth strategies and evaluate the performance over time.

As the market for essential oils and aromatherapy continues to evolve, the changing environment has led to outdated competition or business models, and calls for the improvements of market competitiveness and the implementation of service innovations, such as high quality and high benefits natural oil, as responses to the changes in the market. The simulation-based strategic decision support system for the aromatherapy industry can be a powerful tool for designing business innovation models, commercializing essential oils and attempting to implement service innovations to increase product value, open up market companies, and improve business performance.

It is important to mention that the aromatherapy industry has recently been an emerging market. Due to the behaviours and habits of the new generation of consumers, they have higher awareness of health and issues of the negative effects of some traditional medicines and treatments, which has led to a growing demand for relaxation treatments with natural products. However, companies in this aromatherapy industry confront enormous challenges in responding to certain unfavourable factors.

Especially in Asia, most people are unclear or not fully understand aromatherapy and essential oils as well as lacking knowledge about the benefits of these products. Another disadvantage is that if people have no experience or less information about essential oils, it is difficult to judge or understand the quality of the products. There are several issues to be understood, such as how companies can effectively promote essential oils and aromatherapy? What the strengths and weaknesses of each region are that enable the company to explore the market for the aromatherapy industry? What service innovations can be implemented to remain market competitiveness and meet the growing needs of the industry? For a correct exploitation of the resources, if the company wants to develop a business growth strategy, it needs to plan ahead and evaluate all possible impacts of intended strategies and actions. For instance, the essential oil brands that want to develop in the aromatherapy industry need to have high capabilities of products and services, understand different stages of customers, establish different sales channels and establish a strong brand reputation, enable companies to adapt the faster market change and be effective to meet customer needs.

7. Conclusions

With a case study in essential oil and aromatherapy industry, this paper contributes three critical points driving business innovations and growth. First, this paper illustrates the dynamic perspective of the customer's mentality, and how consumers develop in the market through five stages of awareness. It is recommended that each stage have a different marketing implication and the principles is the key to better utilize company resources. Establishing strong brand awareness among potential customers contributes to enhance value judgment, increase purchase intentions, and reduce search behaviour. By creating extensive brand awareness and conscientiously implementing the development of service innovation, the company is able to guide customers to follow the market-oriented business growth strategy. In some cases, this type of business model innovation may be sufficient to generate high customer value awareness, thereby increasing market retention.

Second, by implementing service and business innovations, the company can make customers access more products as well as obtaining more information about new products and their benefits, so customers are more interested in learning more about the quality of aromatherapy and essential oils. Companies were allowing minimising disadvantageous factors affecting customer outflows in the awareness stage. The model developed in this paper, using a real case study in the aromatherapy industry to help identify and analyse external factors and resources that companies can apply to improve their business performance and to develop strategies for the business development in the fragrance industry.

Finally, using computer simulations to analyse different scenarios sensitively helps to foresee the future and adaptively respond market change more quickly without wasting resources. Therefore, it can analyse customer groups, service innovation strategies, market development strategies, operating costs, and business performance evaluation strategies, as the effectiveness and strangeness of computer simulations.

As a result, the quality of decision-making for managerial operations or marketing expenses can be improved with the model-based scenario planning. Measurable performance over time and an understanding of the principles of stock-flow characteristics should be embedded in strategic management, which is necessary to effectively apply and adapt SSDSS model in different industries. Historical data of the company's business performance and the correct values are the keys to reliable computer simulations. In addition, the economic environment and actual conditions of the market are more important and have a direct impact on the basic model, so it needs to be considered when formulating strategic simulations. Therefore, the aforementioned framework of system applications for real world cases are constantly having discussions to support managerial decision-making.

Although the results of this study contribute to the literature and the industry applications, there are limitations such as limited access and testing to the market responses in the early business

stage, data collection, and the changes in consumer preferences. Future studies are encouraged to proceed with further empirical investigations and discussions.

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