



Effect of Strategic Behavior on Strategic Typology of Owners of the Ayurveda Firms in Sri Lanka

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Abstract

The role of strategic behavior is to promote strategic thinking and creativity to sustain the business through continuous new product development and successful differentiation addressing changing customer needs to maintain the competitive position of the firm. Strategic typology focuses on the dynamic process of adjusting the firm to environmental changes and uncertainty considering the trade-off between internal and external factors. Although there is a substantial amount of research available generally on this issue, strategic behavior and typology are still relatively novel concepts in the Sri Lankan setting where traditional and culture-specific conditions may contribute to the relationship of these concepts. Hence, this study empirically investigates the concepts and their validity in the Sri Lankan context. Therefore, the objective of this paper is to determine the effect of strategic behavior on the strategic typology of owners of Ayurveda firms in Sri Lanka specifically at a strategic level with appropriate holistic thinking, domain, and behavior. Using the survey method, data was collected from a sample of small and medium-sized Ayurveda firms in Sri Lanka. Reliability analysis, multiple regression models, and validity tests were performed to analyze the data. In relation to the effect of strategic behavior on typology, entrepreneurial factors have influenced negatively on typology. Administrative factors have a positive effect on typology. Technology is individually insignificant. In relation to descriptive statistics, Defender comprises the minimum average for entrepreneurial, technology, and administration. Analyzer is at the moderate level and Prospector is leading in strategic behavior. It is suggested to change the traditional thinking pattern so that Sri Lankan Ayurveda firms can compete in the market with western medical products. There is a huge demand for herbal products in the current market hence the Ayurveda products that are user-friendly must

Keywords: Strategic behavior, Administrative, entrepreneurial, Technical, Strategic typology, Ayurveda firms, Sri Lanka.

Introduction

A simple yet fundamentally important question that could be raised in relation to successful business enterprises, especially by scholars, practitioners, and researchers is “What is the secret behind the success of a company?” Why some companies have been successful and why some have been unsuccessful is an area that has been thoroughly investigated by many researchers and scholars all over the world. The role of strategic behavior is to promote strategic thinking to enhance creativity to sustain their business with continuous new product development and successful differentiations to meet changing customer needs and to maintain a competitive position. The Miles and Snow (1978) typology focuses on the dynamic process of adjusting to environmental changes and uncertainty and takes into consideration the trade-off between external and internal factors. Typology, “prospectors” are organizations that focus on product and market innovation; they maximize new opportunities and pioneer innovations to meet market needs. “Defenders”, by contrast, have a narrow product-market domain, pursue little new product development, avoid unnecessary risk, and focus on the efficiency of existing operations. “Analyzers” are a hybrid of the prospector and defender types; they use efficiency in stable product market segments and pursue innovation in dynamic product markets. Finally, “reactors” do not depend on a stable strategy since they are not able to respond effectively to the environment and adapt only when environmental pressures force them to do so (Kumar, Boesso, Favotto, & Menini, 2012).

Problem Identification

The prior research has focused on developing orientation constructs and argued for their effects on performance, the research streams have traditionally ignored the other conceptualizations for the strategic orientation of the firm (Aloulou & Fayolle, 2005; Grinstein, 2008). More recent research, however, has begun to investigate the bipolar links between two simultaneous orientations, and indeed, a fair number of studies have explored the relationship between market and learning orientation, or market and entrepreneurial orientation, as well as the market-technology or product orientation relationships. However, the intersection between entrepreneurial and learning orientations has not been adequately studied, even though both have been identified as critical ingredients in the strategic posture of firms in their respective streams of literature. In addition, there is only fragmented evidence (it is mostly conceptual) on the role of entrepreneurial orientation in combining market and technology-oriented behaviors, and there remains a general dearth of studies investigating the relationship between entrepreneurial, market and technology orientation within the same study. Thus, only a small number of studies have focused on more complex, three- or four-dimensional ideas, attempting to configure the strategic orientation of the firm in a more holistic manner. Yet, strategy and strategic management are capstone endeavors and the focus on one functional area or school of thought cannot adequately reflect the complexity of the process in which managers attempt to direct and influence the activities in their firms (Fritz, 1996). Furthermore, previous studies have highlighted the importance of investigating the relationships between different strategic orientations (Grinstein 2008) and early on, established that organizations that focus exclusively on implementing a single orientation tend to perform poorly in the long run (Pearson 1993). Balancing several orientations tends to result in better performance by the firms (Atuahene Gima & Ko, 2001).

Grinstein, (2008) indicates that firms balancing multiple orientations appear to perform better, but that there is limited literature that focuses on the relationships between orientations. Recent studies (Aloulou & Fayolle, 2005; Grinstein, 2008; Li, Zhao, Tan, & Liu, 2008) suggest that research should aim at studying various combinations of strategic orientations that firms can pursue in different situations (Grinstein, 2008). Therefore, the present research study concentrates on addressing the identified gaps in prior research, namely the need for research on configurations of holistic orientations, investigation of their relationships and effects on organizational creativity differentiation and new product development. Along with this view, strategic orientation is viewed in this study as a Miles and Snow typology. This essentially creates a view in which strategic orientation is seen as a behavioral pattern relating to how the organization transforms its resources into products and services to suit the environment. As Hitt and Ireland (2002) have mentioned, strategic leadership behaviour is “a person’s ability to anticipate, envision, maintain flexibility, think strategically and work with others to initiate changes that will create a viable future for the organization”. Strategists are today struggling with the ever-accelerating challenges in the business environment that affect their strategic behaviour. However, traits such as self-efficacy and high expectations are regularly given consideration by theorists, especially in relation to effective leadership issues (House & Shamir, 1993; Chemers et.al 2000). Self-efficacy can be said to be particularly salient in a crisis as it is seen as a person’s overall estimate of his/her ability to achieve requisite performance in achievement situations (Ross & Gray, 2006). Bandura (1997) in a review, found that self-efficacy was found to influence several forms of performance i.e. academic achievement, athletic performance, career choice, drug and alcohol abstinence, entrepreneurship, decision-making, organizational functioning, stress tolerance and teaching performance (Stajkovic & Luthans, 1998).

Most of the strategic management literature has emphasized firms’ strategic typology as a mediating variable to present a more nuanced picture of the strategic behavior and innovation relationship by arguing that strategic behavior is able to improve innovation directly or indirectly. Although there is a substantial amount of research on this issue, strategic behavior and typology are still relatively novel concepts in the Sri Lankan setting and this empirical study concentrates on investigating the concepts and their validity in the context of the Sri Lankan traditional framework because culturally specific conditions can contribute to this relationship.

Objective of the Study

The objective of this paper is to determine the effect of strategic behavior on the strategic typology of the owners of the Ayurveda firms in Sri Lanka.

Significance of Study

Evaluating the strategic perspective is very important for different types of industries in the dynamic and volatile environment, not only in the Ayurveda sector in Sri Lanka. Therefore, this study can be an eye-opening point for the development of traditional businesses in Sri Lanka at a strategic level with appropriate holistic thinking, domain, and behavior. The Sri Lankan alternative medicine sector needs to focus on quality assurance with multidisciplinary research within the country and collaborative works with other high-tech user countries.

Literature Review

Strategic Behavior

Self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. The self-efficacy of the strategists is fundamental for their morality and beliefs that affect their behavior. A pattern of the operating environment in an organization to gain competitive advantages and enhance performance is referred to as Strategic orientation/behavior (Hambrick, 1983). Strategic behavior is not having a perfect view of nature. According to Manu et al., (1996), strategic behavior means the manner an organization uses strategy for adapting and changing the features of the environment to create a more favorable arrangement. Strategic behavior is referred to as strategic thrust, strategic choice, strategic predisposition, and strategic fit by Chaffe (1985). Gatignon and Xuereb (1997) said that to achieve superior performance, strategic orientation reflects the focus of firms by creating behaviors. Orientations are emphasized as guiding principles by Noble (2002) and they influence a firm's strategy-making activities and marketing. Categories of strategic orientations introduced by Morgan and Strong (1997) have been extended by Noble (2002). The strategic orientation perspectives have been summarized by Noble (2002) into classificatory, competitive culture, comparative and narrative based on two dimensions such as contributing factors and descriptive goals. Strategic orientations comprise different perspectives. Empirical studies have identified strategic orientation as the explanatory factors in performance, but they lack theoretical foundation, and they are inconsistent. There are different interests among researchers about strategic orientations for selecting various combinations (Baker & Sinkula, 2005; Kaya & Seyrek, 2005; Atuahene-Gima, 2005; Salavou, 2005; Im & Workman, 2004).

Strategic Typology

The development of several classification schemes which describe strategic archetypes has been led by the diversity of options available to adapt to the environment (Hambrick, 1983; Porter, 1990; Miles & Snow, 1978). Four distinct characters of defenders, analyzers, prospectors, and reactors have been proposed as strategy classification by Miles and Snow (1978). It includes a general model that consists of a process of adaptation and organizational typology. In their studies, there are three cornerstones. The first one is that they identify the organizations as organic and based on that the environment of the organization is created. The second one is that the organization's structure and process is shaped in line with the strategic choices available to the management. Considering strategy-structure interaction and sharing views of many scholars is the third one and depending on that strategy is constrained by process and structure. In general, a strategy typology is provided by the organization typology of Miles and Snow (1978), and it depends on the assumption. Strategy is grounded in three choices: technological, entrepreneurial, and administrative problems. Miles and Snow (1978) have indicated four types of strategic typologies. The typology of Miles and Snow (1978) focuses on the dynamic process of adjusting to the changing environment and uncertainty and according to McKee *et al.*, (1989) the typology considers the trade-off between internal and external factors. This study examines the innovation strategies of Ayurveda firms by considering sales data of newly introduced products in line with Miles and Snow (1978) classification typologies.

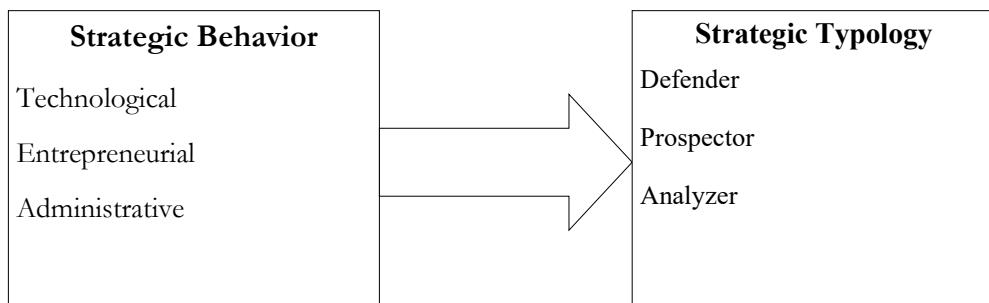
According to the typology of Miles and Snow (1978), “prospectors” are organizations which focus on market and product innovation; they maximize pioneer innovations and new opportunities in achieving market needs. “Defenders”, have a narrow product-market domain and pursue little new product development. They focus on the efficiency of present operations and avoid unnecessary risk. “Analyzers” are considered as a hybrid of the defender and prospector types. Analyzers use efficiency in steady product market segments and innovate in dynamic product markets. Finally, as “reactors” are not able to effectively respond to the environment and adapt when the environment has a pressure on them, they are not a type of stable strategy (Kumar, Boesso, Favotto & Menini, 2012).

Research Methodology

This study adopts a positivist paradigm, grounded in an objectivist ontology that views reality as external to the individual, objective in nature, and independent of personal perceptions. It employs a deductive reasoning approach, as the researcher developed a framework based on pre-defined variables and established theories. Through this process, logical generalization of known facts leads to reasoned conclusions about the strategic typologies of Ayurveda entrepreneurs. Additionally, the study utilizes quantitative methodologies to support its findings.

The Conceptual Model of the Study

Figure1: Conceptual research framework



Source: Developed by the author

Hypotheses

- H₁: Technological behavior has a significant effect on strategic typology.
- H₂: Entrepreneurial behavior has a significant effect on strategic typology.
- H₃: Administrative behavior has a significant effect on strategic typology.

Operationalization of variables

Operationalization

Dimensions	Indicators	Measurements
Strategic Behavior		
Entrepreneurial	Product range	Holistic analysis, Competitive reactions, Strategic concerns, Environmental reactions (Román-Cervantes et al., 2018; Isoherranen & Kess, 2011; Miles & Snow, 1978)
Technological	Technological concerns	Current technology, Modernization (Román-Cervantes et al., 2018; Isoherranen & Kess, 2011; Miles & Snow, 1978)
Administrative	Human capital concerns	Acquiring new knowledge, Planning, Organizing, Controlling, Coordinating, Assessments (Román-Cervantes et al., 2018; Isoherranen & Kess, 2011; Miles & Snow, 1978)

Strategic Typology		
Prospector	Innovation level	High product and market innovation levels (Kumar et al., 2012; Miles & Snow, 1978)
Defender	Market domain	Narrow and limited domain focus, little product development (Kumar et al., 2012; Miles & Snow, 1978)
Analyzer	Mixed strategies	Efficiency in stable segments, innovation in dynamic segments (Kumar et al., 2012; Miles & Snow, 1978)
Reactor	Unstable strategies	Adapting only under pressure (Kumar et al., 2012; Miles & Snow, 1978)

Sample Selection and Data Collection

The sample consists of small and medium-sized Ayurveda firms in Sri Lanka. A survey method was used for data collection, focusing on the strategic behavior and typology of the owners.

Data Analysis Techniques

Reliability analysis, multiple regression models, and validity tests were performed to analyze the data.

Results and Discussion

Reliability Analysis

Researchers tested internal consistency of Likert scale items before the variables are operationalized. It is expected to determine the direction of the items to be applied collectively for creating the variables. Results are given in Table 1.

Table 1: Internal consistencies

Variables	Cronbach's Alpha	Number of Items
Entrepreneurial	0.913	5
Technological	0.894	3
Administrative	0.940	7
Typology	0.817	7

Source: Survey data

According to the reliability analysis, all the Cronbach's Alpha values are more than 0.8. Therefore, Likert scale items have high internal consistencies, and they follow the same dimension. Removing any item from the questionnaire was not necessary and therefore the researcher operationalized the variables. Entrepreneurial behavior comprises five Likert scale items. There are three items for technological behavior. Administrative behavior and typology consist of seven items each. After the variables are operationalized, researcher addressed the objective.

Effect of Strategic Behavior (SB) on Typology

The effect of entrepreneurial, technological and administrative behaviors on typology has been tested by multiple regression models. In the regression ANOVA, provided by Table 2, F- test statistics are highly significant, and the model is jointly significant. Durbin-Watson test statistics are 1.711 and residuals are independent. Thus, the model is appropriate. Table 3 provides the results of individual effect of SB on typology.

Table 2: Effect of Strategic Behavior (SB) on Typology - Regression ANOVA

Model	Sum of Squares		Mean Square		Durbin-Watson	
		df		F	Sig.	
Regression	11.959	3	3.986	4.177	.007	1.711
Residual	187.041	196	.954			
Total	199.000	199				

Source: Survey data

Table 3: Individual Effect of SB on Typology

Model	Un-standardized Coefficients			Standardized Coefficients		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	-.189	.166		-1.138	.257		
Entrepreneurial	-.360	.134	-.396	-2.683	.008	.220	4.540
Technological	.079	.119	.093	.665	.507	.248	4.035
Administrative	.398	.142	.418	2.810	.005	.217	4.612

Source: Survey data

Probabilities of entrepreneurial and administrative behaviors are highly significant at 1%. Individual beta value of entrepreneurial behavior is -0.360 and it has influenced negatively on typology. Accordingly, the hypothesis (H1) is accepted. Technological behavior is individually insignificant as the p value is 0.507. It does not influence individually and therefore, the hypothesis (H2) is rejected. Administrative behavior is highly significant as the p value is 0.005. Individual beta value is 0.398 and it has influenced positively on typology. In line with the findings the hypothesis (H3) is accepted.

All VIF values are less than 10 and the model does not have multicollinearity problems. According to Figure 1, variance of residuals is constant, and regression model does not have heteroscedasticity problem. Results are highly valid. As strategic behavior significantly influences typology, descriptive statistics are provided in table 4.

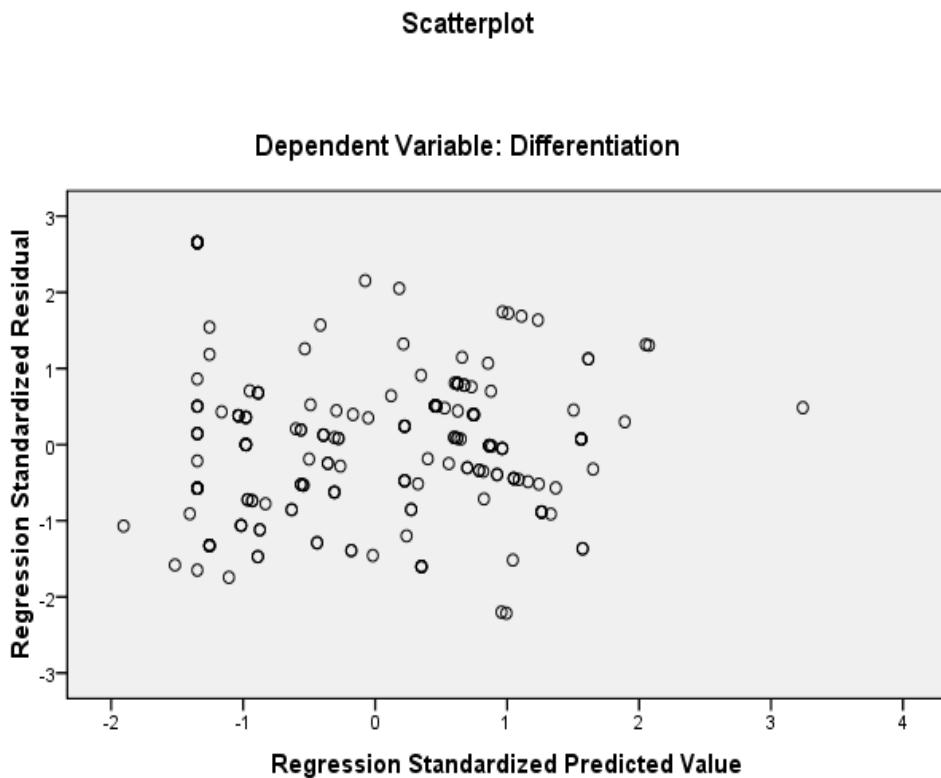


Figure 1:Effect of Strategic Behavior on Differentiation - Residuals Behavior.

Table 4: Descriptive Statistics of SB on Typology

Strategic Behavior	Typology		Analyzer		Prospector		
	Defender	Mean	SD	Mean	SD	Mean	SD
Entrepreneurial	2.23	1.22		2.35	1.02	2.48	1.07
Technological	2.26	1.34		2.27	0.99	2.64	1.26
Administrative	1.88	1.03		2.12	1.00	2.34	1.12

In relation to descriptive statistics, defender comprises minimum average for entrepreneurial, technological and administrative behaviors. Analyzer is at the moderate level and prospector is leading in strategic behavior.

Discussions

Of the 272 Ayurveda doctors surveyed, 73 fall into the "Reactor" category, while the remainder are classified as Defenders, Analyzers, or Prospectors. The findings indicate that a significant proportion of Ayurveda doctors are Reactors, a group characterized by inconsistent strategies and considered a dysfunctional strategic type (Zahra and Pearce, 1990). For further analysis, the study focused on 199 doctors classified as belonging to the Proactor category to address the study's objectives.

The classification of Ayurveda practice owners into strategic groups was based on multiple dimensions, including domain, strategy, and responses to environmental changes. Among the 199 Proactor-category owners analyzed, 109 (55.1%) were identified as Defenders, 58 (29.1%) as Analyzers, and 38 (15.7%) as Prospectors. These proportions reveal that over 67% of the sample are either Defenders or Reactors. As noted by Miles and Snow (1978), Defenders excel in stable and narrow domains, while Reactors struggle to adapt effectively to environmental volatility.

The study further examined the impact of strategic behavior on typology, finding that entrepreneurial, technological, and administrative behaviors significantly influence typology, with probabilities highly significant at the 1% level. Specifically, entrepreneurial behavior showed a negative influence on typology with a beta value of -0.360, while administrative behavior positively influenced typology with a beta value of 0.398. Technological behavior was found to be individually insignificant. These results deviate from existing literature (e.g., Miles and Snow, 1978; Isoherranen & Kess, 2011; Román-Cervantes et al., 2018), which typically associates positive relationships between strategic typology and these behavioral dimensions, suggesting that higher entrepreneurial, administrative, and technological capabilities expand the strategic domain.

In contrast, the unique characteristics of the Sri Lankan Ayurveda sector provide a distinct perspective. Rooted in indigenous knowledge, this sector prioritizes cultural traditions and sentimental values over modern scientific practices or customer-driven approaches. As noted by Warren (1991) and Ellen & Harris (1996), indigenous knowledge systems integrate technical and non-technical elements, making it challenging to separate rational and non-rational aspects. This traditional emphasis is reflected in the practices of Ayurveda entrepreneurs, who often prioritize preserving the traditional nature of their products over customer preferences or technological innovation. One prominent Ayurveda firm owner stated, *"I don't want to destroy my product by purely focusing on customer requirements. Ayurveda products must be traditional and have natural tastes and colors."*

The findings also suggest that many Ayurveda doctors are driven by social and spiritual goals rather than profit motives. They view their businesses as forms of social service rather than as profit-driven ventures. Consequently, even those with strong entrepreneurial capabilities do not actively seek new opportunities aligned with environmental changes or customer demands to maximize profits.

This contrasts with broader studies that demonstrate a positive impact of entrepreneurial, administrative, and technological behaviors on strategic typology. The distinctive characteristics and goals of the Sri Lankan alternative medicine sector underscore the need for a tailored approach to understanding strategic behaviors in this context.

Conclusion

The analysis shows that entrepreneurial factors negatively affect strategic typology, while administrative factors have a positive effect. Technological factors are individually insignificant. This suggests that traditional thinking patterns must change for Sri Lankan Ayurveda firms to compete effectively. Strategic behavior significantly influences the strategic typology of Ayurveda firms in Sri Lanka. To thrive in a competitive market, firms must adapt their strategic behavior, especially focusing on administrative aspects and reassessing traditional entrepreneurial approaches. The high demand for herbal products presents an opportunity for innovation and market growth.

Implications

As the most of indigenous Ayurveda entrepreneurs have reactor and defender types of strategic typologies, this segment does not seem to develop competitively. Also, their knowledge relating to modern technology as well as management practices is very low. Therefore, the human capital theory has mentioned academic and training programs in this field should focus on five components, namely individual capability, individual motivation, leadership, organizational climates and workgroup effectiveness. Through this type of academic and training curriculum, industry can develop effective human capital to meet the future demand and requirements with appropriate typology such as Prospector or Analyzer. This is because of the reactive behavior and narrow domain of the strategists limit the strategic thinking and holistic view creating a negative impact on strategy formulation and implementation in a dynamic and volatile business environment.

Most Ayurveda entrepreneurs still depend on traditional textbooks and the knowledge that has been inherited from generation to generation. The Strategic behavior of this field does not facilitate gaining new knowledge and pursuing innovation. Therefore, universities and other government mechanisms should identify the value of strategic behavior to develop their curricula.

Administrative and management including Strategic Management, marketing, Human Resource Management, Operational and Financial Management practices of Ayurveda sector is very weak. Therefore, Owners of this sector are still following traditional practices to produce and market various products; however, other countries such as India and China are utilizing modern technology and concepts to develop this field. They strongly utilize IT and other facilities to meet the needs and wants of the current generation. However, because of narrow domain, reactive behaviour and prevalence of sound cultural and religious framework, Ayurveda doctors owning treatment centers are reluctant to move away from their traditional practices. In line with the findings of this study, it is relevant to make a strong recommendation to change their traditional thinking pattern so that Ayurveda doctors can compete in the market with western medical products. There is a huge demand for herbal products in the current market and Ayurveda products that are user friendly must be available, and this will make a positive contribution towards developing the industry.

Out of the behavioral dimensions, the most influential one is the technological aspect; accordingly, Ayurveda doctors must pay attention to this area more than the other dimensions. If the Ayurveda doctors concentrate more on the administrative side, it will have a negative impact on innovations. This fact is reflected through the negative beta value of the findings in relation to administrative dimension, thus this will not contribute to the development of Ayurveda industry. Therefore, it is recommended to recruit qualified people to handle the administrative aspects of the Ayurveda centers and doctors must give priority to medium and large scale technological and entrepreneurial dimensions. In smaller scale operations, administrative matters must be handled by the owners themselves; accordingly, it is necessary to develop the administrative side of Ayurveda doctors with a view to promoting innovation and differentiation. This study was conducted to analyze the effect of strategic behavior on the strategic typology of owners of Ayurveda firms in Sri Lanka. It provides valuable insights into how traditional businesses can adapt to modern market demands and compete effectively with high-tech and western medical products.

Limitations of the Research and Directions for Further Research

Although present research makes relevant contributions to the field, it also has some limitations that should be considered in directing future research. Most of the Ayurveda centers are small scale; therefore, there is no way of maintaining proper statistical records. It has had a negative impact on the current study, because of the lack of reliable data; researcher had to rely on informal methods in collecting relevant data.

Researcher has utilized different techniques such as personal observations, interviews and formal questionnaires in the data collection process to gather reliable data, but they depend on the opinions of Ayurveda doctors. Therefore, up to some extent this may inversely affect the reliability of data thus the findings.

There are three main types of alternative medicines practiced in Sri Lanka, these are Ayurveda, Sinhala Vdakama and Unani, and however, researcher has not considered them separately in this study if they have similar treatment tactics, though some minor differences exist among them. However, differences could exist in clusters; therefore, future research should extend this analysis taking cluster differences in the same industry into consideration.

Researcher has not considered the fundamental issues in relation to entrepreneurial, technological and administrative behavioral dimensions under the different typology. Observing typology based on special issues on entrepreneurial, technological and administrative behavioral dimensions is important for future research.

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